City of Oregon City

625 Center Street
Oregon City, OR 97045
503-657-0891

Meeting Agenda

Planning Commission

Monday, August 26, 2019 | **7:00 PM** | **Commission Chambers**

1. Call to Order

2. Public Comments

3. Public Hearing

3a. Marquis Parking Lot Expansion: GLUA-18-00031 (General Land Use Application), PARK-18-00001 (Parking Adjustment); SP-18-00119 (Site Plan and Design Review) with VAR-18-00002 (Type III Planning Commission Variance)

Attachments:
- Commission Report
- GLUA-18-00031 Staff Report and Recommendation
- Vicinity Map
- Applicant's Narrative
- Drawings and Plans
- Parking Study and Letter
- Traffic Study
- Neighborhood Meeting Documentation
- Drainage Report
- Geotech Report
- Pre-Application Conference Notes
- 120 Extension to November 1st, 2019
- Traffic Study Review from John Replinger
- Public Comment

3b. LEG 19-00003 - Beavercreek Road Concept Plan- Code and Zoning Amendments- (Process Moving Forward, Topics of Future Meetings)

Attachments:
- Commission Report
- Public Comments Matrix- August 19, 2019
- Planning Commission Question and Issues Matrix August 19, 2019
- Vicinity Map
- Beavercreek Road Concept Plan Overlay Map
- Applicant's Submittal
- June 7, 2019 Draft Zoning Code Amendments

June 7, 2019 Revised Draft Zoning Map (with and without major streets)

June 7, 2019 Zoning Code Memo

June 7, 2019 Zoning Map Memo

Economic/Jobs Analysis Memo

Infrastructure Memo

Transportation Memo

Public Comment Tracker January 2019-June 2019

4. Communications

5. Adjournment

Public Comments: The following guidelines are given for citizens presenting information or raising issues relevant to the City but not listed on the agenda.

- *Complete a Comment Card prior to the meeting and submit it to the staff member.*
- *When the Chair calls your name, proceed to the speaker table and state your name and city of residence into the microphone.*
- *Each speaker is given 3 minutes to speak. To assist in tracking your speaking time, refer to the timer at the dais.*
- *As a general practice, Oregon City Officers do not engage in discussion with those making comments.*

Agenda Posted at City Hall, Pioneer Community Center, Library, and City Web site(oregon-city.legistar.com).
Video Streaming & Broadcasts: The meeting is streamed live on Oregon City's Web site at www.orcity.org and is available on demand following the meeting.
ADA: City Hall is wheelchair accessible with entry ramps and handicapped parking located on the east side of the building. Hearing devices may be requested from the City staff member prior to the meeting. Disabled individuals requiring other assistance must make their request known 48 hours preceding the meeting by contacting the City Recorder's Office at 503-657-0891.

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625 Center Street
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Staff Report

File Number: PC 19-084

Agenda Date: 8/26/2019

Status: Agenda Ready

To: Planning Commission

Agenda #: 3a.

From: Assistant Planner Kelly Reid

File Type: Land Use Item

SUBJECT:
Marquis Parking Lot Expansion: GLUA-18-00031 (General Land Use Application), PARK-18-00001 (Parking Adjustment); SP-18-00119 (Site Plan and Design Review) with VAR-18-00002 (Type III Planning Commission Variance)

RECOMMENDED ACTION (Motion):
Staff recommends approval with conditions.

BACKGROUND:
The Marquis Memory Care and Rehabilitation Facility at the corner of Beavercreek and Molalla Avenue has submitted a request to expand their exsiting parking lot from 43 to 63 total parking spaces. The proposal exceeds the maximum number of permitted off-street parking spaces, so a Parking Adjustment has been requested. The 69-bed facility was built in the 1960s with parking in front and to the side of the building. The applicant proposes additional parking spaces in front of the building, which requires a variance. The reconfiguration of the parking lot would also relocate the spaces near one of the driveways to improve safety for vehicles entering the parking lot.

The adopted parking maximum for assisted living facilities is one per 5 beds, which would allow for 14 parking spaces at this site. The applicant submitted a parking study indicating that the existing 42-space parking lot is over capacity during midday on weekdays, when staffing levels are at their highest. The applicant also provided information on staffing levels over time, indicating that at peak times, there are 44 staff on site. On site parking is also used for visitor parking. Based on the evidence provided, staff recommends that the applicant be permitted to add a limited number of parking spaces to achieve 58 total spaces rather than the requested 63 spaces. Staff also recommends mitigation in the form of pedestrian amenities for the new parking spaces proposed in front of the building.

City staff have also been working with the applicant to ensure that the site design will be aligned with the planned improvements to Molalla Avenue. The site has two driveways on Molalla Avenue; a condition of approval to limit driveway movements to improve safety is recommended.

BUDGET IMPACT:
Amount:
FY(s):
Funding Source:

OREGON CITY

Community Development – Planning

698 Warner Parrott Road | Oregon City OR 97045
Ph (503) 722-3789 | Fax (503) 722-3880

STAFF REPORT AND RECOMMENDATION
Planning Commission Hearing: August 26, 2019

FILE NUMBER: **GLUA-18-00031 General Land Use Application:** SP 18-00119 Site Plan and Design Review, PARK 18-00001 Parking Adjustment, and VAR-18-00002 Variance

APPLICANT/OWNER: Sierra Vista Property Partnership
4560 SE International Way #100
Milwaukie, Oregon 97222

Submitted: October 3, 2018
Complete: April 1, 2019
120-Day Decision Deadline: November 1, 2019

REPRESENTATIVE: Trisha Clark
Emerio Design
6455 SW Fallbrook Pl. #100
Beaverton, Oregon 97008

REQUEST: The applicant requests a Parking Adjustment to exceed the maximum number of parking spaces allowed, along with development of a parking lot expansion and variance for new parking spaces located in front of the existing building.

LOCATION: 1680 Molalla Avenue, Oregon City, Oregon 97045
Clackamas County Map 3-2E-05C Taxlot 00301

REVIEWER: Kelly Reid, Planner
Sang Pau, Development Project Engineer

RECOMMENDATION: Approval with Conditions

PROCESS: Type III decisions involve the greatest amount of discretion and evaluation of subjective approval standards, yet are not required to be heard by the city commission, except upon appeal. Applications evaluated through this process include conditional use permits. The process for these land use decisions is controlled by ORS 197.763. Notice of the application and the planning commission hearing is published and mailed to the applicant, recognized neighborhood association and property owners within three hundred feet of the subject property. Notice must be issued at least twenty days pre-hearing, and the staff report must be available at least seven days pre-hearing. At the evidentiary hearing held before the planning commission, all issues are addressed. The decision is final unless appealed and description of the requirements for perfecting an appeal. The decision of the planning commission is appealable to the city commission within fourteen days of the issuance of the final decision. The city commission hearing on appeal is on the record and no new evidence shall be allowed. Only those persons or a city-recognized neighborhood association who have participated either orally or in writing have standing to appeal the decision of the planning commission. Grounds for appeal are

limited to those issues raised either orally or in writing before the close of the public record. A city-recognized neighborhood association requesting an appeal fee waiver pursuant to OCMC 17.50.290.C must officially approve the request through a vote of its general membership or board at a duly announced meeting prior to the filing of an appeal. The city commission decision on appeal from the planning commission is the city's final decision and is appealable to the Land Use Board of Appeals (LUBA) within twenty-one days of when it becomes final.

Conditions of Approval
Planning File GLUA 18-00031
SP 18-00119 Site Plan and Design Review, PARK 18-00001 Parking Adjustment, and VAR-18-00002 Variance

(P) = Verify that condition of approval has been met with the Planning Division.
(DS) = Verify that condition of approval has been met with the Development Services Division.
(B) = Verify that condition of approval has been met with the Building Division.
(F) = Verify that condition of approval has been met with Clackamas Fire Department.

The applicant shall meet the following condition(s) prior to issuance of Public Works permit(s):

1. The development shall comply with all current Oregon City Public Works design standards, specifications, codes, and policies. (DS)

2. The development's engineer(s) shall schedule a pre-design meeting with Oregon City staff prior to official review of the development construction plans. (DS)

3. The applicant shall provide construction plans, stamped and signed by a professional engineer licensed in the State of Oregon, containing street, grading, stormwater, sanitary sewer and water infrastructure improvements that conforms to all current Oregon City Public Works standards, specifications, codes, and policies for review and approval by the City. (DS)

4. The engineering plans shall provide a local benchmark onsite using the NAVD88 datum. (DS)

5. The development's contractor(s) and engineer(s) shall attend a pre-construction meeting with Oregon City staff prior to beginning construction work associated with the project. (DS)

6. Along the frontage of Molalla Avenue, the development shall dedicate ROW beginning at a 3' offset (parallel to the existing ROW line) from the northern most property corner and ending a 9' offset (parallel to the existing ROW line) from existing eastern most property corner. The new ROW line shall intersect the two aforementioned points. The applicant shall relocate or remove all private structures, signs or utilities located within the ROW dedication. (DS)

7. The applicant shall provide a fee-in-lieu of $33,000 for the constructing a 10-foot-wide sidewalk along the property frontage of Molalla Avenue. (DS)

8. The applicant shall pay a fee-in-lieu of $16,000 for four decorative streetlights to be installed along the frontage of Molalla Avenue. (DS)

9. The applicant shall provide an updated drainage report signed by a licensed engineer which addresses all items from the Section 9.4 of the Public Works Stormwater and Grading Design Standards. (DS)

10. The applicant shall submit a performance guarantee which is equal to one hundred twenty percent of the estimated cost of constructing the stormwater improvements shown in a city approved construction plan provided by the applicant's engineer. The estimated costs shall be supported by a verified engineering estimate and approved by the city engineer. The guarantee shall be in a form identified in Code 17.50.140.A of the Oregon City Municipal Code. The guarantee shall remain in effect until all improvements have been constructed and are accepted by the city. (DS)

11. The applicant shall obtain an Erosion control permit prior to commencement of any earth disturbing activities. (DS)

12. The applicant shall provide an Erosion Prevention and Sedimentation Control Plan prior to issuance of an erosion control permit. (DS)

The applicant shall meet the following condition(s) prior to issuance of Certificate of Final Completion by the Development Services Department:

13. The workmanship and materials for any work performed under permits issued by Oregon City Public Works shall be in accordance with the edition of the "Oregon Standard Specifications for Construction" as prepared by the Oregon Department of Transportation (ODOT) and the Oregon Chapter of American Public Works Association (APWA) and as modified and adopted by the city. (DS)

14. The applicant shall execute a "Maintenance Covenant and Access Easement For Privately Owned Stormwater Management Facilities" and pay associated recording fees. The covenant shall include a site plan identifying all privately-owned stormwater management facilities and an operation and maintenance plan for each type of stormwater facility in accordance with the Public Works Stormwater and Grading Design Standards. The Maintenance Covenant and Access Easement shall be reviewed and accepted by the City prior to recording. (DS)

15. The applicant shall provide a 10-foot-wide public utility easement (PUE) along all property lines fronting existing or proposed right-of-way unless a reduced PUE width is approved by the City Engineer. (DS)

16. The property owner shall sign a Restrictive Covenant Non-Remonstrance Agreement for the purpose of making storm sewer, sanitary sewer, water or street improvements in the future that benefit the property. The applicant shall pay all fees associated with processing and recording the Non-Remonstrance Agreement. (DS)

Planning Conditions of Approval - The applicant shall meet the following condition(s) prior to issuance of Public Works permit(s) unless otherwise indicated:

17. The applicant shall revise the landscaping plan to identify that the proposed plantings will cover 100% of the landscape area within 3 years nor that no mulch, bark chips, or similar materials will be allowed at the time of landscape installation except under the canopy of shrubs and within two feet of the base of trees. (P)

18. The applicant shall redesign the northernmost driveway to reduce its width and provide only right-in right-out access. The final width shall be determined by the city engineering staff in consultation with emergency service providers. The applicant shall install signing in conformance with the Manual on Uniform Traffic Control Devices. The southernmost driveway shall be reconstructed to limit ingress and egress to only right turn maneuvers to and from Molalla Avenue; the driveway shall be signed in conformance with the Manual on Uniform Traffic Control Devices. (P)

19. The applicant shall, as part of nonconforming upgrades to pedestrian circulation, revise the plans to provide pedestrian access from the right of way that is clearly visible and distinguishable from vehicular access. (P)

20. The applicant shall identify a location for a future connection and provide an easement for future vehicular access with Taxlot 404. The easement shall be recorded prior to final inspections for the project. The physical connection itself will not be required as part of this development. (P)

21. The applicant shall provide pedestrian connections from the sidewalk to the front entrance and from the existing walkway in front of the building to the new parking area proposed in the southeast portion of the site. The applicant shall ensure that the required connections meet all of the requirements in 17.62.050.A.9.f. (P)

22. The applicant is limited to 58 total onsite vehicle parking spaces. (P)

23. The applicant shall install bicycle parking at the ratio of one per 30 auto spaces and shall ensure that at least one space is covered. (P)

24. Prior to issuance of permits, the applicant shall include bicycle parking on the site plan and show details demonstrating that the parking is securely anchored in a convenient, secure, and accessible location, that the parking is separated from vehicle parking and maneuvering areas by 5 feet and does not obstruct pedestrian walkways, and is clearly marked or visible from the street, is connected to main building entrances, has direct access from a right of way, and is closer to the building than the nearest vehicle parking. (P)

25. Prior to issuance of permits, the applicant's landscape architect shall ensure that the Portuguese laurel species is not a nuisance species. (P)

26. Prior to issuance of permits, the applicant shall demonstrate that irrigation will be included or propose an alternative that is acceptable to the Community Development Director. (P)

27. If the applicant wishes to preserve the two trees, along with the existing monument sign on the Molalla Avenue frontage, the perimeter parking lot landscaping may be reduced or removed in this area. The preserved trees and landscape around them will provide sufficient landscaping to meet the intent of this standard. (P)

28. The applicant shall ensure that all interior landscaping islands are at least six feet in width. (P)

29. The applicant shall provide information on the loading needs of the site and revise the loading plans as needed. (P)

30. The applicant shall provide pedestrian amenities in the space between the new parking spaces and the sidewalk, with one element required for each individual parking space in front of the building. The pedestrian amenities should include at least two different items from the list below:

    - Bench, seat wall, or other outdoor seating
    - Public art, interpretive panel, or sculpture
    - Enhanced landscaping of 40 square feet
    - Upsizing of proposed perimeter parking lot tree of one inch caliper
    - Bicycle rack installed on a concrete pad connected to the sidewalk (worth one element for every bike parking space provided; one staple rack would provide two spaces) (P)

31. If any trees in the Molalla Avenue right of way are removed, the applicant shall replace the tree or pay fee-in-lieu in accordance with Chapter 12.08.035. (P)

32. The applicant shall provide a revised tree removal and mitigation plan that meets this standard. The applicant may utilize fee in lieu of planting if desired. (P)

33. The applicant shall submit a revised tree mitigation plan prepared by a certified arborist, horticulturalist, forester or other environmental professional. (P)

34. The applicant shall ensure that tree protection during construction meets the requirements of 17.41.130. (P)

35. If the applicant wishes to preserve the two maple trees along the Molalla Avenue frontage, the applicant shall provide an arborist assessment of the impacts of construction on the trees. If an arborist finds that the trees will not survive construction impacts, the applicant shall mitigate for the trees. (P)

36. The applicant shall provide the construction cost estimate and make nonconforming upgrades per OCMC 17.58 as required. Note that the upgrades are limited to 10% of the construction cost and the items in OCMC 17.58.040.c.2.b. Site plan application fees may increase accordingly with any construction cost increase. (P)

I. BACKGROUND:

1. Existing Conditions

The subject property contains a one-story Memory Care and rehabilitation facility, Marquis Care, with 69 beds. The project site is an 80,000 square foot (approximately 2 acres) corner lot on Molalla Avenue and Beavercreek Road, with two driveways on Molalla Avenue.

The zoning designation for this site is Commercial (C). The abutting private properties to the north and south are assigned the same zoning designation. Properties behind the building have a Mixed Use Employment (MUE) zoning designation. The surrounding area contains numerous commercial businesses and multifamily uses on Molalla Avenue as well.

Molalla Avenue and Beavercreek Road is a major intersection in the hilltop area of the City. The City is currently in the design phase of a Molalla Avenue streetscape project to improve pedestrian and bicycle facilities on Beavercreek Road along with safety and traffic flow improvements.

Figure 1. Vicinity Map

Figure 2: Existing Conditions – Aerial Image

2. Project Description

The applicant submitted the following project description:

> *"This request is for a parking adjustment, a major variance and site plan design review through a Type 3 review process.*
> *The site has access to Molalla Avenue at the north end of the site and also at the southeast corner of the site. The building is already connected to public services. No changes to the existing building has been proposed. There is existing lighting attached to the building that will be retained.*
> *The parking lot expansion is needed because the current parking lot is continually full through out the day and visitors and workers for the facility often cannot find parking in the lot dedicated to the facility and end up parking off-site at adjacent businesses, as there are no on-street parking opportunities in the immediate area.*
> *The operation of the facility is completely dependent on the ability of staff to get to work to care for the residents; lack of on-site parking is a big issue that comes up each day at shift change, where staff must overlap to ensure the needed level of care for residents and patents."*

The applicant also included information on staffing, which will be discussed in this staff report. In addition, the applicant describes the requested approvals as:

> *"Parking Adjustment: Because the requested number of parking stalls exceed the maximum allowed for the existing use, which is a residential care facility. Included with this request is a detailed Parking Analysis and report provided by the applicant's Traffic Engineer, Frank Charbonneau.*

Major Variance: OCMC 17.62.050.2.A states that parking areas shall be located behind, below or on one or both sides of buildings. In this case, the existing parking lot is already located partially in front of the building and the revised parking area will continue to have spaces in front of the building, therefore a Variance is needed.

Non-Conforming: The site is non-conforming due to building and parking lot placement and building design. The proposed exterior improvements trigger required non-conforming upgrades, including pedestrian circulation and landscaping requirements, bike parking and screening; these enhancements have been included as a part of this approval request."

The applicant has proposed 20 additional parking spaces on site, adding to the existing 43 spaces. The proposal would remove eight parking spaces in front of the building and add 15 parking spaces in front of the building in a reconfiguration and expansion of the parking lot, with 13 spaces in front of the building remain. The proposal would result in a total of 28 parking spaces in front of the existing building.

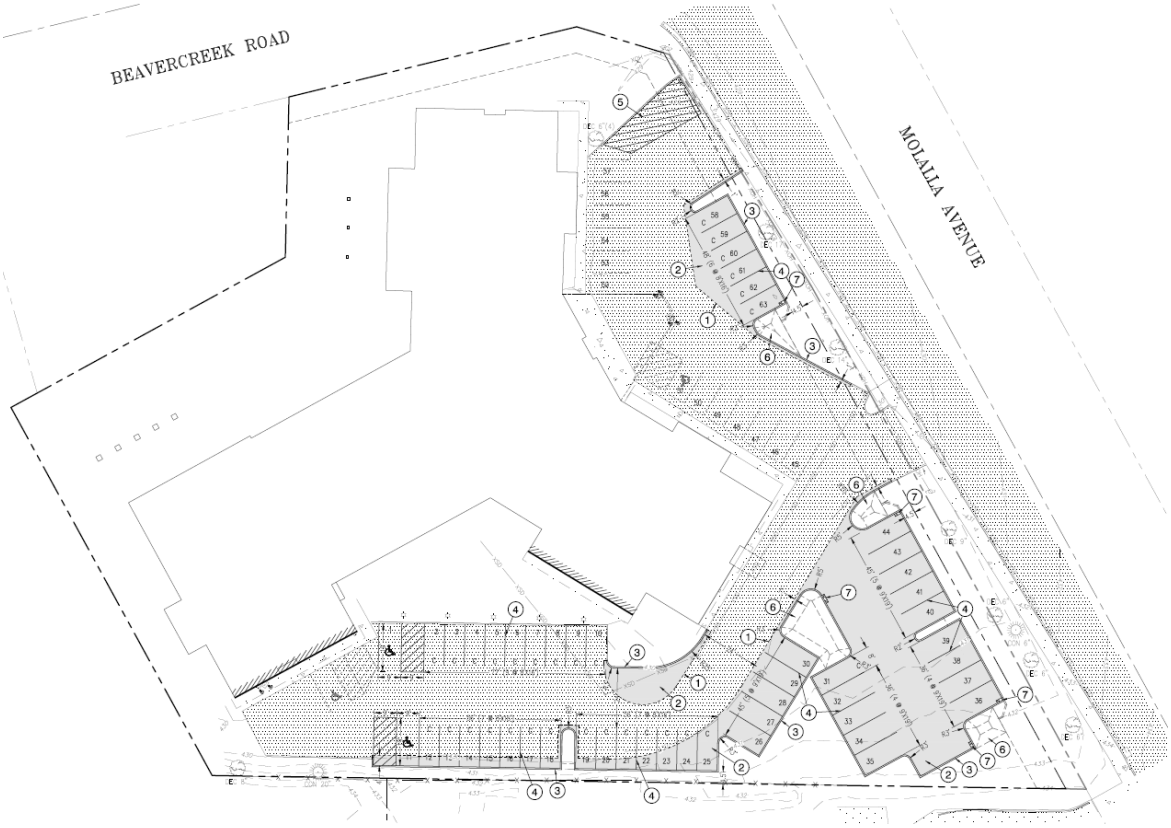

Figure 3: Proposed Site Plan

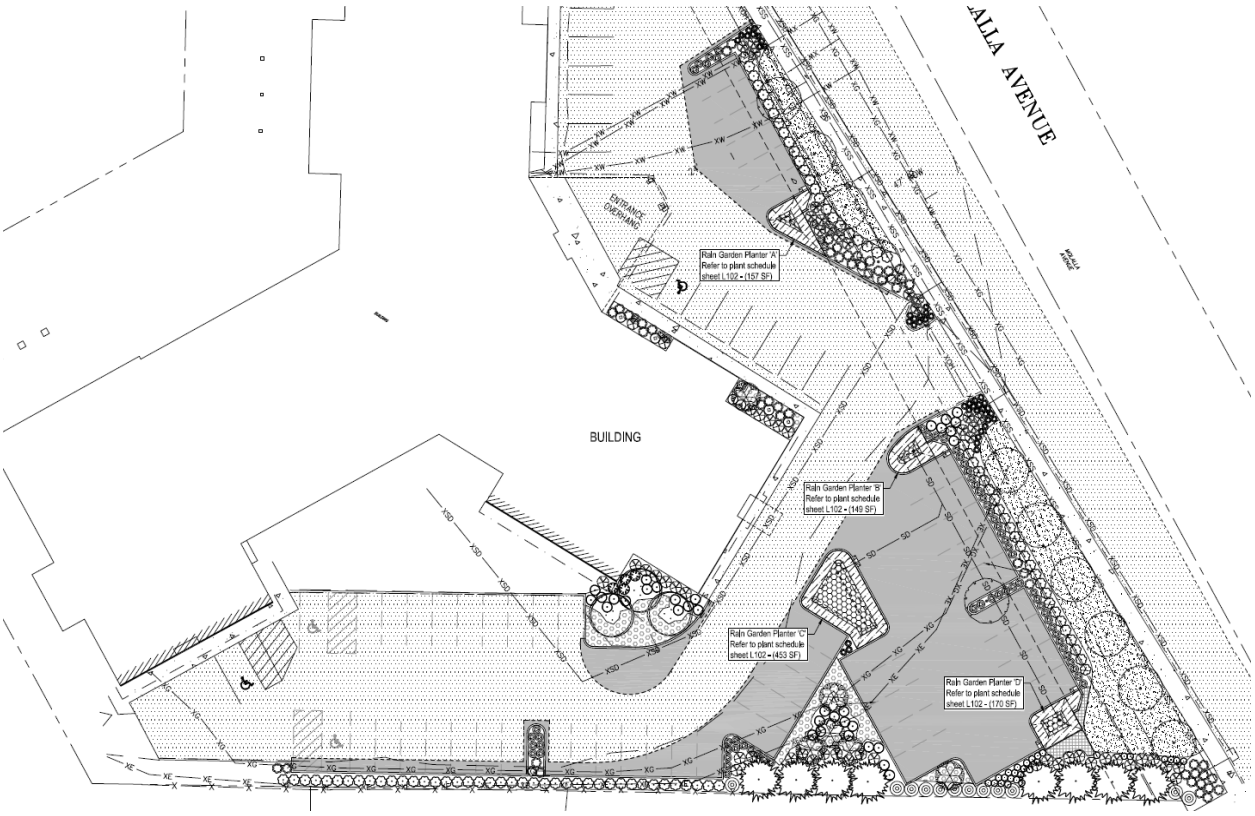

Figure 4. Proposed Landscaping Plan

3. **Municipal Code Standards and Requirements:** The following sections of the Oregon City Municipal Code are applicable to this land use approval:

   12.04 - Streets, Sidewalks, and Public Places
   12.08 - Public and Street Trees
   13.12 - Stormwater Management
   15.48 - Grading, Filling and Excavating
   17.29 – Mixed Use Corridor
   17.41 – Tree Protection
   17.47 - Erosion and Sediment Control
   17.50 - Administration and Procedures
   17.52 – Off-street Parking and Loading
   17.62 – Site Plan and Design Review
   17.54.100 – Fences

   The City Code Book is available on-line at www.orcity.org.

4. **Permits and Approvals:** The applicant is responsible for obtaining approval and permits from each applicable governmental agency and department at Oregon City including but not limited to the Engineering and Building Divisions.

5. **Notice and Public Comment**

Notice of the proposal was sent to various City departments, affected agencies, property owners within 300 feet, and the Neighborhood Association. Additionally, the subject property was posted with signs identifying that a land use action was occurring on the property. Public comments submitted include (Exhibit 3):

One comment was received from a former volunteer at the center stating that the proposal is a good idea due to lack of parking.

Comments of the Public Works Department and Development Services Division are incorporated into this report and Conditions of Approval.

None of the comments provided indicate that an approval criterion has not been met or cannot be met through the Conditions of Approval attached to this Staff Report.

II. ANALYSIS AND FINDINGS:

CHAPTER 17.32 "C" GENERAL COMMERCIAL DISTRICT

17.32.020 - Permitted uses.
A. Any use permitted in the MUC - Mixed Use Corridor zone with no maximum footprint size, unless otherwise restricted in Sections 17.24.020, 17.24.030 or17.24.040;
B. Hotels and motels;
C. Drive-in or drove through facilities;
D. Passenger terminals (water, auto, bus, train);
E. Gas stations;
F. Outdoor markets that do not meet Section 17.29.020.H;
G. Motor vehicle and recreational vehicle sales and/or incidental service;
H. Motor vehicle and recreational vehicle repair and/or service;
I. Custom or specialized vehicle alterations or repair wholly within a building.
Finding: Complies as proposed. The use is a memory care facility, which is a permitted use; the use is not proposed to change.

17.32.030 - Conditional uses.
The following conditional uses are permitted when authorized and in accordance with the standards contained in Chapter 17.56:
A. Religious institutions;
B. Hospitals;
C. Self service storage facilities;
D. Public utilities, including sub-stations (such as buildings, plants and other structures);
E. Public and/or private educational or training facilities;
F. Parking structures and lots not in conjunction with a primary use;
G. Emergency service facilities (police and fire), excluding correctional facilities.
Finding: Complies as proposed. The use is a permitted use.

17.32.040 - Prohibited uses in the General Commercial District.
The following uses are prohibited in the General Commercial District:
A. Distribution, wholesaling and warehousing.
B. Outdoor sales or storage (Except secured areas for overnight parking or temporary parking of vehicles used in the business. Sales of products not located under a roof may be allowed if they are located in an area that is architecturally connected to the primary structure, is an ancillary use and is approved through the Site Plan and Design Review process. This area may not exceed fifteen percent of the building footprint of the primary building).

C. General manufacturing or fabrication.
D Heavy equipment service, repair, sales, storage or rental (including but not limited to construction equipment and machinery and farming equipment).
Finding: Complies as proposed. The applicant has not proposed any prohibited uses.

17.32.050 - Dimensional standards.
A. Minimum lot area: None.
Finding: Complies as proposed. The lot size will not change as a result of this proposal.

B. Maximum building height: Sixty feet.
Finding: Complies as proposed. The building height is below 60 feet and will not change as a result of this proposal.

C. Minimum required setbacks if not abutting a residential zone: None.
Finding: Complies as proposed. The site does not abut a residential zone; setbacks will not change as a result of this proposal.

D. Minimum required interior and rear yard setbacks if abutting a residential zone: twenty feet, plus one foot additional yard setback for every two feet of building height over thirty-five feet.
Finding: Not applicable. The site does not abut a residential zone.

E. Maximum Allowed Setbacks.
1. Front yard setback: Five feet (may be expanded with Site Plan and Design Review Section 17.62.055).
Finding: Complies as proposed. The existing building setback is legally nonconforming at greater than five feet. The required right of way dedication will reduce the setback and bring the property closer to conformity with this standard.

2. Interior side yard setback: None.
Finding: Complies as proposed. The interior side yard setback will not change as a result of this proposal.

3. Corner side yard setback abutting street: None
Finding: Complies as proposed. The corner side yard setback will not change as a result of this proposal.

4. Rear yard setback: None.
Finding: Complies as proposed. The rear yard setback will not change as a result of this proposal.

F. Maximum site coverage of building and parking lot: Eighty-five percent
Finding: Complies as proposed. The proposal adds 8,400 square feet of new parking lot area. The applicant did not provide a percentage for the proposed site coverage, but an analysis of the proposed site plan shows that 64% of the site would be covered by the building plus parking lot.

G. Minimum landscaping requirement (including parking lot): Fifteen percent.
Finding: Complies as proposed. The landscaping exceeds 15%; approximately 36% of the site is proposed to remain landscaped.

CHAPTER 17.62 SITE PLAN AND DESIGN REVIEW

***17.62.015** Modifications that will better meet design review requirements.*
The review body may consider modification of site-related development standards. These modifications are done as part of design review and are not required to go through the Variance process pursuant to section 17.60.020. Adjustments to use-related development standards (such as floor area ratios, intensity of use, size of the use,

number of units, or concentration of uses) are required to go through the Variance process pursuant to section 17.60.020. Modifications that are denied through design review may be requested as Variance through the Variance process pursuant to section 17.60.020. The review body may approve requested modifications if it finds that the applicant has shown that the following approval criteria are met:
17.62.015.A. *The modification will result in a development that better meets design guidelines; and*
17.62.015.B. *The modification meets the intent of the standard. On balance, the proposal will be consistent with the purpose of the standard for which a modification is requested.*
Finding: Not applicable. The applicant has not requested a modification; the proposed parking lot changes require a variance and a parking adjustment.

17.62.020 - Preapplication conference.
Prior to filing for site plan and design review approval, the applicant shall confer with the community development director pursuant to Section 17.50.030. The community development director shall identify and explain the relevant review procedures and standards.
Finding: Please refer to the findings in Section 17.50.050 of this report.

17.62.030 - When required.
Site plan and design review shall be required for all development of real property in all zones except the R-10, R-8, R-6, R-5 and R-3.5 zoning districts, unless otherwise provided for by this title or as a condition of approval of a permit. Site plan and design review shall also apply to all conditional uses, cottage housing development, multi-family and non-residential uses in all zones. No building permit or other permit authorization for development shall be issued prior to site plan and design review approval. Parking lots and parking areas accessory to uses regulated by this chapter also shall require site plan and design review approval. Site plan and design review shall not alter the type and category of uses permitted in zoning districts.
Finding: Applicable. The applicant has proposed development in the "C" General Commercial District, therefore, Chapter 17.62 is applicable.

17.62.035 - Minor site plan and design review.
Finding: Complies as Proposed. The proposed development does not qualify for a Minor Site and Design Review application.

17.62.040 - Plans required.
Finding: Complies as Proposed. The applicant has submitted all requested application items.

17.62.050 - Standards.
A. All development shall comply with the following standards:
1. Landscaping, A minimum of fifteen percent of the lot shall be landscaped. Existing native vegetation shall be retained to the maximum extent practicable. All plants listed on the Oregon City Nuisance Plant List shall be removed from the site prior to issuance of a final occupancy permit for the building.
Finding: Complies as Proposed. The applicant's narrative did not address this standard. The proposed plans demonstrate that the 15% landscaping requirement will be met.

a. Except as allowed elsewhere in the zoning and land division chapters of this Code, all areas to be credited towards landscaping must be installed with growing plant materials. A reduction of up to twenty-five percent of the overall required landscaping may be approved by the community development director if the same or greater amount of pervious material is incorporated in the non-parking lot portion of the site plan (pervious material within parking lots are regulated in OCMC 17.52.070).
Finding: Complies as Proposed. All areas credited towards the 15% site landscaping are proposed to be installed with growing plant material. No reduction is requested.

b. Pursuant to Chapter 17.49, landscaping requirements within the Natural Resource Overlay District, other than landscaping required for parking lots, may be met by preserving, restoring and permanently protecting native vegetation and habitat on development sites.
Finding: Not Applicable. The subject site is not located within the Natural Resource Overlay District.

c. The landscaping plan shall be prepared by a registered landscape architect and include a mix of vertical (trees and shrubs) and horizontal elements (grass, groundcover, etc.) that within three years will cover one hundred percent of the Landscape area. No mulch, bark chips, or similar materials shall be allowed at the time of landscape installation except under the canopy of shrubs and within two feet of the base of trees. The community development department shall maintain a list of trees, shrubs and vegetation acceptable for landscaping.
Finding: Complies with Condition. The landscape plan was prepared by Troy Mears, Registered Landscape Architect. The plan includes a mix of vertical and horizontal elements but it does not identify that the proposed plantings will cover 100% of the landscape area within 3 years nor that no mulch, bark chips, or similar materials will be allowed at the time of landscape installation except under the canopy of shrubs and within two feet of the base of trees. Prior to issuance of permits, the applicant shall revise the landscaping plan meet this standard. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

d. For properties within the Downtown Design District, or for major remodeling in all zones subject to this chapter, landscaping shall be required to the extent practicable up to the ten percent requirement.
Finding: Not Applicable. The subject site is not located within the Downtown Design District.

e. Landscaping shall be visible from public thoroughfares to the extent practicable.
Finding: Complies as Proposed. The applicant has proposed landscaping that is visible from public thoroughfares to the extent practicable.

f. Interior parking lot landscaping shall not be counted toward the fifteen percent minimum, unless otherwise permitted by the dimensional standards of the underlying zone district.
Finding: Complies as Proposed. Per the C base zone dimensional standards, the minimum required landscaping for a site includes landscaping material with a parking lot. The landscaping plan submitted with this application demonstrates compliance with this standard, showing a landscaping calculation equivalent to 36 percent of the parcel area.

2. Vehicular Access and Connectivity.
a. Parking areas shall be located behind buildings, below buildings, or on one or both sides of buildings.
Finding: See findings in 17.60. A variance to this standard is proposed; the applicant has proposed new parking spaces in front the existing building.

b. Ingress and egress locations on thoroughfares shall be located in the interest of public safety. Access for emergency services (fire and police) shall be provided.
Finding: Complies with Condition. No change is proposed for the ingress or egress of development along the Molalla Avenue street frontage. The applicant submitted a Traffic Analysis Letter (TAL), which indicated that ingress and egress would not change. The TAL was reviewed by the City's traffic consultant John Replinger, who found no safety impacts, but did recommend changes to driveway access to improve safety. The northernmost driveway is less than 175 feet from Beavercreek Road, which does not meet Table 12.04.025.B (Minimum Driveway Spacing Standards) of the Oregon City Municipal Code. However, this existing driveway allows for easier ingress and egress for emergency vehicles entering the site. The applicant shall redesign the northernmost driveway to reduce its width and provide only right-in right-out access. The final width shall be determined by the city engineering staff in consultation with emergency service providers. The applicant shall install signing in conformance with the Manual on Uniform Traffic Control Devices. The southernmost driveway shall be reconstructed

to limit ingress and egress to only right turn maneuvers to and from Molalla Avenue; the driveway shall be signed in conformance with the Manual on Uniform Traffic Control Devices (Exhibit 4). **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

c. Alleys or vehicular access easements shall be provided in the following Districts: R-2, MUC-1, MUC-2, MUD and NC zones unless other permanent provisions for access to off-street parking and loading facilities are approved by the decision-maker. The corners of alley intersections shall have a radius of not less than ten feet.
Finding: Not applicable. The subject site is not within any of these zones.

d. Sites abutting an alley shall be required to gain vehicular access from the alley unless deemed impracticable by the community development director.
Finding: Not applicable. The development property is not adjacent to an existing alley.

e. Where no alley access is available, the development shall be configured to allow only one driveway per frontage. On corner lots, the driveway(s) shall be located off of the side street (unless the side street is an arterial) and away from the street intersection. Shared driveways shall be required as needed to accomplish the requirements of this section. The location and design of pedestrian access from the sidewalk shall be emphasized so as to be clearly visible and distinguishable from the vehicular access to the site. Special landscaping, paving, lighting, and architectural treatments may be required to accomplish this requirement.
Finding: Complies with condition. There are two existing driveways on Molalla Avenue. The applicant has not proposed separate pedestrian access to the site. Nonconforming upgrades are triggered for this application; see findings in Chapter 17.58. The applicant shall, as part of nonconforming upgrades to pedestrian circulation, revise the plans to provide pedestrian access from the right of way that is clearly visible and distinguishable from vehicular access. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

f. Driveways that are at least twenty-four feet wide shall align with existing or planned streets on adjacent sites.
Finding: Complies with conditions. The existing driveways exceed 24 feet in width and they are not aligned with existing or planned streets. The applicant shall redesign the northernmost driveway to reduce its width and provide only right-in right-out access . The final width shall be determined by the city engineering staff in consultation with emergency service providers. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

g. Development shall be required to provide existing or future connections to adjacent sites through the use of vehicular and pedestrian access easements where applicable. Such easements shall be required in addition to applicable street dedications as required in Chapter 12.04.
Finding: Complies with condition. The site is bordered by other commercial uses but these sites are not currently physically connected. The public sidewalk provides pedestrian connection between the site and adjacent properties. To the west, the Red Soils Business Park is at a higher grade and no connection is practical. To the south, Taxlot 404 contains a driveway that could be connected in the future. The applicant shall identify a location for a future connection and provide an easement for future vehicular access with Taxlot 404. The easement shall be recorded prior to final inspections for the project. The physical connection itself will not be required as part of this development. It may be triggered by future development on site.

h. Vehicle and pedestrian access easements may serve in lieu of streets when approved by the decision maker only where dedication of a street is deemed impracticable by the city.
Finding: Not Applicable. No streets or easements to replace streets are required.

i. Vehicular and pedestrian easements shall allow for public access and shall comply with all applicable pedestrian access requirements.
Finding: Complies with Condition. See findings in 17.62.050.A.2.g. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

j. In the case of dead-end stub streets that will connect to streets on adjacent sites in the future, notification that the street is planned for future extension shall be posted on the stub street until the street is extended and shall inform the public that the dead-end street may be extended in the future.
Finding: Not Applicable. Dead-end stub streets that will connect to streets on adjacent sites are not proposed or required for this development.

k. Parcels larger than three acres shall provide streets as required in Chapter 12.04. The streets shall connect with existing or planned streets adjacent to the site.
Finding: Not Applicable. The subject site is not larger than three acres.

l. Parking garage entries shall not dominate the streetscape. They shall be designed and situated to be ancillary to the use and architecture of the ground floor. This standard applies to both public garages and any individual private garages, whether they front on a street or private interior access road.
Finding: Not Applicable. A parking garage has not been proposed as part of this development.

m. Buildings containing above-grade structured parking shall screen such parking areas with landscaping or landscaped berms, or incorporate contextual architectural elements that complement adjacent buildings or buildings in the area. Upper level parking garages shall use articulation or fenestration treatments that break up the massing of the garage and/or add visual interest.
Finding: Not Applicable. A parking garage has not been proposed as part of this development.

3. Building structures shall be complimentary to the surrounding area. All exterior surfaces shall present a finished appearance. All sides of the building shall include materials and design characteristics consistent with those on the front. Use of inferior or lesser quality materials for side or rear facades or decking shall be prohibited.

a. Alterations, additions and new construction located within the McLoughlin Conservation District, Canemah National Register District, and the Downtown Design District and when abutting a designated Historic Landmark shall utilize materials and a design that incorporates the architecture of the subject building as well as the surrounding district or abutting Historic Landmark. Historic materials such as doors, windows and siding shall be retained or replaced with in kind materials unless the community development director determines that the materials cannot be retained and the new design and materials are compatible with the subject building, and District or Landmark. The community development director may utilize the Historic Review Board's Guidelines for New Constriction (2006) to develop findings to show compliance with this section.
b. In historic areas and where development could have a significant visual impact, the review authority may request the advisory opinions of appropriate experts designated by the community development director from the design fields of architecture, landscaping and urban planning. The applicant shall pay the costs associated with obtaining such independent professional advice; provided, however, that the review authority shall seek to minimize those costs to the extent practicable.
Finding: Not Applicable. No buildings are proposed.

4. Grading shall be in accordance with the requirements of Chapter 15.48 and the public works stormwater and grading design standards.
Finding: Please refer to the findings in Chapter 15.48 of this report.

5. Development subject to the requirements of the Geologic Hazard overlay district shall comply with the requirements of that district.
Finding: Not applicable. No portion of the subject property is within the Geologic Hazard overlay district.

6.Drainage shall be provided in accordance with city's drainage master plan, Chapter 13.12, and the public works stormwater and grading design standards.
Finding: Please refer to the findings in Chapter 13.12 of this report.

7. Parking, including carpool, vanpool and bicycle parking, shall comply with city off-street parking standards, Chapter 17.52.
Finding: Please refer to the findings in Chapter 17.52 of this report.

8. Sidewalks and curbs shall be provided in accordance with the city's transportation master plan and street design standards. Upon application, the community development director may waive this requirement in whole or in part in those locations where there is no probable need, or comparable alternative location provisions for pedestrians are made.
Finding: Please refer to the findings in Chapter 12.04 of this report.

9. A well-marked, continuous and protected on-site pedestrian circulation system meeting the following standards shall be provided:
a. Pathways between all building entrances and the street are required. Pathways between the street and buildings fronting on the street shall be direct. Exceptions may be allowed by the director where steep slopes or protected natural resources prevent a direct connection or where an indirect route would enhance the design and/or use of a common open space.
Finding: Not Applicable. No buildings are proposed.

b. The pedestrian circulation system shall connect all main entrances on the site. For buildings fronting on the street, the sidewalk may be used to meet this standard. Pedestrian connections to other areas of the site, such as parking areas, recreational areas, common outdoor areas, and any pedestrian amenities shall be required.
Finding: Complies with condition. A pedestrian connection from the public sidewalk to the entrance has not been provided; nor has a pedestrian connection to the new parking area on the southeast corner of the property been proposed. Pedestrian upgrades are required as part of nonconforming upgrades. The applicant shall provide pedestrian connections from the sidewalk to the front entrance and from the existing walkway in front of the building to the new parking area proposed in the southeast portion of the site. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

c. Elevated external stairways or walkways, that provide pedestrian access to multiple dwelling units located above the ground floor of any building are prohibited. The community development director may allow exceptions for external stairways or walkways located in, or facing interior courtyard areas provided they do not compromise visual access from dwelling units into the courtyard.
Finding: Not Applicable. No buildings are proposed.

d. The pedestrian circulation system shall connect the main entrances of adjacent buildings on the same site.
Finding: Not Applicable. No buildings are proposed.

e. The pedestrian circulation system shall connect the principal building entrance to those of buildings on adjacent commercial and residential sites where practicable. Walkway linkages to adjacent developments shall not be required within industrial developments or to industrial developments or to vacant industrially-zoned land.

Finding: Not Applicable. No buildings are proposed.

f. On-site pedestrian walkways shall be hard surfaced, well drained and at least five feet wide. Surface material shall contrast visually to adjoining surfaces. When bordering parking spaces other than spaces for parallel parking, pedestrian walkways shall be a minimum of seven feet in width unless curb stops are provided. When the pedestrian circulation system is parallel and adjacent to an auto travel lane, the walkway shall be raised or separated from the auto travel lane by a raised curb, bollards, landscaping or other physical barrier. If a raised walkway is used, the ends of the raised portions shall be equipped with curb ramps for each direction of travel. Pedestrian walkways that cross drive isles or other vehicular circulation areas shall utilize a change in textual material or height to alert the driver of the pedestrian crossing area.

Finding: Complies with Condition. The applicant has not proposed some of the required pedestrian connections. The applicant shall ensure that the required connections meet all of the requirements in 17.62.050.A.9.f. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

10. There shall be provided adequate means to ensure continued maintenance and necessary normal replacement of private common facilities and areas, drainage ditches, streets and other ways, structures, recreational facilities, landscaping, fill and excavation areas, screening and fencing, groundcover, garbage storage areas and other facilities not subject to periodic maintenance by the city or other public agency.

Finding: Complies as Proposed. The applicant's narrative identified that the building owner will provide maintenance and necessary normal repair and replacement.

11. Site planning shall conform to the requirements of OCMC Chapter 17.41 Tree Protection.

Finding: Please refer to the findings in Chapter 17.41 of this report.

12. Development shall be planned, designed, constructed and maintained to protect water resources and habitat conservation areas in accordance with the requirements of the city's Natural Resources Overlay District, Chapter 17.49, as applicable.

Finding: Not Applicable. The subject site is not located within the Natural Resource Overlay District, therefore, OCMC Chapter 17.49 is not applicable.

13. All development shall maintain continuous compliance with applicable federal, state, and city standards pertaining to air and water quality, odor, heat, glare, noise and vibrations, outdoor storage, radioactive materials, toxic or noxious matter, and electromagnetic interference. Prior to issuance of a building permit, the community development director or building official may require submission of evidence demonstrating compliance with such standards and receipt of necessary permits. The review authority may regulate the hours of construction or operation to minimize adverse impacts on adjoining residences, businesses or neighborhoods. The emission of odorous gases or other matter in such quantity as to be readily detectable at any point beyond the property line of the use creating the odors or matter is prohibited.

Finding: Complies as Proposed. The applicant's narrative identified that the development proposal will comply with all applicable federal, state and city standards.

14. Adequate public water and sanitary sewer facilities sufficient to serve the proposed or permitted level of development shall be provided. The applicant shall demonstrate that adequate facilities and services are presently available or can be made available concurrent with development. Service providers shall be presumed correct in the evidence, which they submit. All facilities shall be designated to city standards as set out in the city's facility master plans and public works design standards. A development may be required to modify or replace existing offsite systems if necessary to provide adequate public facilities. The city may require over sizing of facilities where necessary to meet standards in the city's facility master plan or to allow for the orderly and efficient provision of public facilities and services. Where over sizing is required, the developer may request reimbursement from the city for over sizing based on the city's reimbursement policy and fund availability, or provide for recovery of costs from intervening properties as they develop.

Finding: Not applicable. There is existing public water and sanitary sewer facilities sufficient to serve the proposed or permitted level of development.

15. Adequate right-of-way and improvements to streets, pedestrian ways, bike routes and bikeways, and transit facilities shall be provided and be consistent with the city's transportation master plan and design standards and this title. Consideration shall be given to the need for street widening and other improvements in the area of the proposed development impacted by traffic generated by the proposed development. This shall include, but not be limited to, improvements to the right-of-way, such as installation of lighting, signalization, turn lanes, median and parking strips, traffic islands, paving, curbs and gutters, sidewalks, bikeways, street drainage facilities and other facilities needed because of anticipated vehicular and pedestrian traffic generation. Compliance with [Chapter] 12.04, Streets, Sidewalks and Public Places shall be sufficient to achieve right-of-way and improvement adequacy.

Finding: Complies as conditioned. The frontage of Molalla Avenue currently does not meet street lighting standards identified in the City adopted Molalla Ave Streetscape Standards. Therefore, the development shall provide street lighting to meet those standards. Since there is a City Infrastructure project titled Molalla Avenue Phase 3 (CI 18-004) which will install 4 streetlights along the frontage of this property, the development shall pay a fee-in-lieu for the installation of streetlights along the frontage of Molalla Avenue. City cost estimates indicate that each streetlight and pole will be approximately $4,000 ($3,275 for pole and base; $725 for luminaire). The applicant shall pay a fee-in-lieu of $16,000 for four decorative streetlights to be installed along the frontage of Molalla Avenue. This improvement is needed to protect users of the public way which will be accessed by this development. Molalla Avenue serves the users of this development.

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

16. If a transit agency, upon review of an application for an industrial, institutional, retail or office development, recommends that a bus stop, bus turnout lane, bus shelter, accessible bus landing pad, lighting, or transit stop connection be constructed, or that an easement or dedication be provided for one of these uses, consistent with an agency adopted or approved plan at the time of development, the review authority shall require such improvement, using designs supportive of transit use. Improvements at a major transit stop may include intersection or mid-block traffic management improvements to allow for crossings at major transit stops, as identified in the transportation system plan.

Finding: Complies as Proposed. The subject site is located on a transit route. The development application was transmitted to Tri-Met and no comments were received in response to the applicant's proposal.

17. All utility lines shall be placed underground.

Finding: Complies as proposed. The applicant has not proposed additional overhead utilities.

18. Access and facilities for physically handicapped people shall be incorporated into the site and building design consistent with applicable federal and state requirements, with particular attention to providing continuous, uninterrupted access routes.

Finding: Complies as Proposed. The applicant indicated that the proposal is compliant with applicable ADA requirements. Compliance with ADA and accessibility standards will be reviewed upon submittal of a building permit application.

19. For a residential development, site layout shall achieve at least eighty percent of the maximum density of the base zone for the net developable area. Net developable area excludes all areas for required right-of-way dedication, land protected from development through Natural Resource or Geologic Hazards protection, and required open space or park dedication.

Finding: Not Applicable. No residential uses are proposed.

20. Screening of Mechanical Equipment:
a. Rooftop mechanical equipment, including HVAC equipment and utility equipment that serves the structure, shall be screened. Screening shall be accomplished through the use of parapet walls or a sight-obscuring enclosure around the equipment constructed of one of the primary materials used on the primary facades of the structure, and that is an integral part of the building's architectural design. The parapet or screen shall completely surround the rooftop mechanical equipment to an elevation equal to or greater than the highest portion of the rooftop mechanical equipment being screened. In the event such parapet wall does not fully screen all rooftop equipment, then the rooftop equipment shall be enclosed by a screen constructed of one of the primary materials used on the primary facade of the building so as to achieve complete screening.
b. Wall-mounted mechanical equipment shall not be placed on the front facade of a building or on a facade that faces a right-of-way. Wall-mounted mechanical equipment, including air conditioning or HVAC equipment and groups of multiple utility meters, that extends six inches or more from the outer building wall shall be screened from view from streets; from residential, public, and institutional properties; and from public areas of the site or adjacent sites through the use of (a) sight-obscuring enclosures constructed of one of the primary materials used on the primary facade of the structure, (b) sight-obscuring fences, or (c) trees or shrubs that block at least eighty percent of the equipment from view or (d) painting the units to match the building. Wall-mounted mechanical equipment that extends six inches or less from the outer building wall shall be designed to blend in with the color and architectural design of the subject building.
c. Ground-mounted above-grade mechanical equipment shall be screened by ornamental fences, screening enclosures, trees, or shrubs that block at least eighty percent of the view. Placement and type of screening shall be determined by the community development director.
d. All mechanical equipment shall comply with the standards in this section. If mechanical equipment is installed outside of the site plan and design review process, planning staff shall review the plans to determine if additional screening is required. If the proposed screening meets this section, no additional planning review is required.
e. This section shall not apply to the installation of solar energy panels, photovoltaic equipment or wind power generating equipment.
Finding: Not Applicable. No outdoor mechanical equipment is proposed as part of this development.

21. Building Materials.
a. Preferred building materials. Building exteriors shall be constructed from high quality, durable materials. Preferred exterior building materials that reflect the city's desired traditional character are as follows:
i. Brick.
Ii. Basalt stone or basalt veneer.
iii. Narrow horizontal wood or composite siding (generally five inches wide or less); wider siding will be considered where there is a historic precedent.
iv. Board and baton siding.
v. Other materials subject to approval by the community development director.
vi. Plywood with battens or fiber/composite panels with concealed fasteners and contagious aluminum sections at each joint that are either horizontally or vertically aligned.
vii. Stucco shall be trimmed in wood, masonry, or other approved materials and shall be sheltered from extreme weather by roof overhangs or other methods.
Finding: Not Applicable. No buildings are proposed.

b. Prohibited materials. The following materials shall be prohibited in visible locations unless an exception is granted by the community development director based on the integration of the material into the overall design of the structure.
i. Vinyl or plywood siding (including T-111 or similar plywood).
Ii. Glass block or highly tinted, reflected, translucent or mirrored glass (except stained glass) as more than ten percent of the building facade.
iii. Corrugated fiberglass.
iv. Chain link fencing (except for temporary purposes such as a construction site or as a gate for a refuse enclosure).
[v.] Crushed colored rock/crushed tumbled glass.

[vi.] Non-corrugated and highly reflective sheet metal.
Finding: Complies as Proposed. No prohibited materials have been identified within the applicant's submittal.

c. Special material standards: The following materials are allowed if they comply with the requirements found below:
1. Concrete block. When used for the front facade of any building, concrete blocks shall be split, rock- or ground-faced and shall not be the prominent material of the elevation. Plain concrete block or plain concrete may be used as foundation material if the foundation material is not revealed more than three feet above the finished grade level adjacent to the foundation wall.
2. Metal siding. Metal siding shall have visible corner moldings and trim and incorporate masonry or other similar durable/permanent material near the ground level (first two feet above ground level).
3. Exterior Insulation and Finish System (EIFS) and similar toweled finishes shall be trimmed in wood, masonry, or other approved materials and shall be sheltered from extreme weather by roof overhangs or other methods.
4. Building surfaces shall be maintained in a clean condition and painted surfaces shall be maintained to prevent or repair peeling, blistered or cracking paint.
Finding: Not Applicable. No special materials have been identified within the applicant's submittal.

22. Conditions of Approval. The review authority may impose such conditions as it deems necessary to ensure compliance with these standards and other applicable review criteria, including standards set out in city overlay districts, the city's master plans, and city public works design standards. Such conditions shall apply as described in Sections 17.50.310, 17.50.320 and 17.50.330. The review authority may require a property owner to sign a waiver of remonstrance against the formation of and participation in a local improvement district where it deems such a waiver necessary to provide needed improvements reasonably related to the impacts created by the proposed development. To ensure compliance with this chapter, the review authority may require an applicant to sign or accept a legal and enforceable covenant, contract, dedication, easement, performance guarantee, or other document, which shall be approved in form by the city attorney.
Finding: Complies with Condition. The property does not have a Non-Remonstrance agreement with the city. The review authority has determined a Non-Remonstrance agreement will be required per section 17.62.050.A.22 of the Oregon City Municipal Code. The property also, does not have a Public Utility Easement (PUE), required for compliance with city public works design standards.

The property owner shall sign a Restrictive Covenant Non-Remonstrance Agreement for the purpose of making storm sewer, sanitary sewer, water or street improvements in the future that benefit the property. The applicant shall pay all fees associated with processing and recording the Non-Remonstrance Agreement. The applicant shall provide a 10-foot-wide public utility easement (PUE) along all property lines fronting existing or proposed right-of-way unless a reduced PUE width is approved by the City Engineer.

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

17.62.065 - Outdoor lighting.
B. Applicability.
1. General.
a. All exterior lighting for any type of commercial, mixed-use, industrial or multi-family development shall comply with the standards of this section, unless excepted in subsection B.3.
b. The city engineer/public works director shall have the authority to enforce these regulations on private property if any outdoor illumination is determined to present an immediate threat to the public health, safety and welfare.
Finding: Not applicable. The applicant has proposed a parking lot expansion. A lighting plan is not provided with this application because the property owner is not proposing new lighting for the parking

lot. The applicant has not proposed any changes to pedestrian walkways in the parking lot and thus no new lighting is required.

17.62.080 - Special development standards along transit streets.
B. Applicability. Except as otherwise provide in this section, the requirements of this section shall apply to the construction of new retail, office and institutional buildings which front on a transit street.
Finding: Not Applicable. No buildings are proposed.

17.62.085 - Refuse and recycling standards for commercial, industrial, and multi-family developments.
The purpose and intent of these provisions is to provide an efficient, safe and convenient refuse and recycling enclosure for the public as well as the local collection firm. All new development, change in property use, expansions or exterior alterations to uses other than single-family or duplex residences shall include a refuse and recycling enclosure. The area(s) shall be:
A. Sized appropriately to meet the needs of current and expected tenants, including an expansion area if necessary;
B. Designed with sturdy materials, which are compatible to the primary structure(s);
C. Fully enclosed and visually screened;
D. Located in a manner easily and safely accessible by collection vehicles;
E. Located in a manner so as not to hinder travel lanes, walkways, streets or adjacent properties;
F. On a level, hard surface designed to discharge surface water runoff and avoid ponding;
G. Maintained by the property owner;
H. Used only for purposes of storing solid waste and recyclable materials;
I. Designed in accordance with applicable sections of the Oregon City Municipal Code (including Chapter 8.20—Solid Waste Collection and Disposal) and city adopted policies.
Finding: Not Applicable. No new refuse areas are proposed.

CHAPTER 17.52 OFF-STREET PARKING AND LOADING

17.52.015 - Planning commission adjustment of parking standards.
A. Purpose: The purpose of permitting a planning commission adjustment to parking standards is to provide for flexibility in modifying parking standards in all zoning districts, without permitting an adjustment that would adversely impact the surrounding or planned neighborhood. The purpose of an adjustment is to provide flexibility to those uses which may be extraordinary, unique or to provide greater flexibility for areas that can accommodate a denser development pattern based on existing infrastructure and ability to access the site by means of walking, biking or transit. An adjustment to a minimum or maximum parking standard may be approved based on a determination by the planning commission that the adjustment is consistent with the purpose of this Code, and the approval criteria can be met.
B. Procedure: A request for a planning commission parking adjustment shall be initiated by a property owner or authorized agent by filing a land use application. The application shall be accompanied by a site plan, drawn to scale, showing the dimensions and arrangement of the proposed development and parking plan, the extent of the adjustment requested along with findings for each applicable approval criteria. A request for a parking adjustment shall be processed as a Type III application as set forth in Chapter 17.50.

Finding: Complies as Proposed. This land use application includes an application for a Type III Parking Adjustment, which requests approval to exceed the maximum parking allowance onsite. The maximum allowed by code is based on the number of beds in the facility. The current allowance for this building is 14 spaces based on the existing 69 beds and maximum allowance of 1 per 5 beds. The existing parking lot contains 42 spaces. The applicant has proposed 21 additional spaces for a total of 63 spaces on site.

The purpose of the maximum parking allowance is to avoid the overabundance of parking, which encourages single occupancy auto use, and creates vast areas of pavement which create greater stormwater impacts, urban heat island impacts, and contribute to suburban sprawl. The maximum

parking code also exists to avoid the creation of parking lots that are sized to handle parking needs that only occur one or a few times a year, such retail parking lots sized for holiday shopping seasons, which are less than half full most days of the year. The Planning Commission may approve an adjustment if it finds that the request is consistent with the purpose of this code and the approval criteria are met.

The purpose of the parking adjustment provisions is to provide flexibility to those uses which may be extraordinary or unique. The applicant has provided a detailed description of the uses within the facility and the staffing levels required. They have also submitted a parking analysis of the existing parking lot and on-street parking in the vicinity. An analysis of the request can be found below.

C. Approval criteria for the adjustment are as follows:
1. Documentation: The applicant shall document that the individual project will require an amount of parking that is different from that required after all applicable reductions have been taken.
Finding: Complies as Proposed. The reductions alluded to in this section are not relevant to this discussion, as the applicant has proposed to exceed the maximum parking, not to reduce the minimum. Therefore, this standard should be read to require that the applicant demonstrate that the parking needs for the project are greater than that allowed by code.

The applicant provided ample information regarding the number of employees currently working in the building, and the number of visitors. Although the number of employees is not a criteria for determining parking requirements, the parking ratios in the code for assisted living facilities are partially based on staffing levels. The parking ratio assumes that residents do not require parking spaces, but that employees do; and the code accounts for typical staffing levels at assisted living facilities.

The current site contains 42 spaces; 7 of the spaces are visitor spaces. The average number of residents in the building is 58. Staffing ranges between 7 employees during nighttime hours to up to 44 employees on weekdays between 6AM and 2PM. The applicant conducted parking utilization counts during daytime hours and found the parking lot ranges between 38% and 100% occupancy, with occupancy exceeding 83% between 9AM and 2:30PM. The applicant also stated that 39% of total 95 employees take an alternative mode to work such as transit, carpooling, or walking. The proportion of the total employees that drive alone therefore is 58.

There is no on-street parking within 500 feet of the subject site, which is also unusual in Oregon City.

The applicant submitted the following narrative regarding staffing and parking needs:

> *"We currently have 95 employees on our payroll. Of those 95 employees 37 of them utilize public transportation, carpool with coworkers/family, or walk to work.*
>
> *I visited all of the surrounding businesses and asked if we could use their parking lot for our employee's. None of the businesses were open to allowing employee use their parking lot and stated to me that "They would be towed." If they parked there. I asked them if they could give me some sort of letter stating that to which only one business said they would. The business complex directly across the street is owned by management company that I haven't heard back from but the parking lot it owns is very well signed to say that the parking is reserved for patrons of those businesses. If you feel it would be helpful I would be open to going back around to see if there is anything that they can give me showing that they have refused to let us use parking spots.*

Though Parking for our employee's is important the parking lot expansion would be more to serve the patients families that come to visit. We average 60 plus residents which at any one time could have a visitor. This applies especially to our skilled wing of the facility that runs about 18 patients on average. The skilled patients have visitors more frequently and in greater numbers. Also, many of our visitors are elderly themselves and having to park a good distance away then to walk across a busy street creates a safety issue.

Another thought I had was that our state staffing ratio requirements have changed in over the years which require us to have more staff. We have a lot more staff than when this facility and parking lot were initially built. At the time that the building was built I am sure the parking lot was more than enough."

The applicant has demonstrated that the use is unique compared to other assisted living or memory care uses in Oregon City.
The Adjustment requests approval of up to 63 parking spaces for the development. Staff finds that due to the average residents census of 58 and the number of total employees that drive alone to work, 58 total spaces is justified. The applicant is limited to 58 total onsite spaces. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

2. Parking analysis for surrounding uses and on-street parking availability: The applicant must show that there is a continued fifteen percent parking vacancy in the area adjacent to the use during peak parking periods and that the applicant has permission to occupy this area to serve the use pursuant to the procedures set forth by the community development director.

a. For the purposes of demonstrating the availability of on street parking as defined in [Section] 17.52.020.B.3., the applicant shall undertake a parking study during time periods specified by the community development director. The time periods shall include those during which the highest parking demand is anticipated by the proposed use. Multiple observations during multiple days shall be required. Distances are to be calculated as traversed by a pedestrian that utilizes sidewalks and legal crosswalks or an alternative manner as accepted by the community development director.
b. The onsite parking requirements may be reduced based on the parking vacancy identified in the parking study. The amount of the reduction in onsite parking shall be calculated as follows:
i. Vacant on-street parking spaces within three hundred feet of the site will reduce onsite parking requirements by 0.5 parking spaces; and
ii. Vacant on-street parking spaces between three hundred and six hundred feet of the [site] will reduce onsite parking requirements by 0.2 parking spaces.
Finding: Complies as Proposed. This criteria language assumes the Parking Adjustment requests providing off-street parking at levels below the minimum code requirement. In this instance, the project is requesting approval to exceed the off-street maximum parking, rather than reduce below the minimum requirement. For this reason, most of the items discussed in Item 2 are not applicable.

The applicant conducted a parking occupancy study of the existing parking lots to meet this criterion. Detailed information is provided in the Parking Study (Exhibit 2).

The study was conducted on four separate weekdays during May and at several times. The study found that the 42 spaces in the existing lot were observed to have an occupancy of 38% to 100%. Between noon and 2PM, the occupancy was over 95% on average, and the engineer observed some people parking on lawn areas due to lack of available spaces. The results of the parking study support the reports of the applicant that parking is at capacity onsite during midday, although at other times of day

the utilization was between 40 and 80%. The engineer also observed that loading and unloading of service trucks interfered with traffic flow and parking.

Occupancy rates over 85% typically indicate that parking is insufficient or needs to be managed differently.

On-street parking conditions were evaluated within a 500-foot radius from site. No on-street parking exists within this radius.

3. Function and Use of Site: The applicant shall demonstrate that modifying the amount of required parking spaces will not significantly impact the use or function of the site and/or adjacent sites.
The applicant states that:
"The requested increase will actually increase the function and use of the site because the staff and visitors will have safe parking on site. Currently, parking sometimes occurs within the parking lots of adjacent businesses, which causes a domino effect on the efficiency of parking in the area."

Approval of the adjustment to increase the off-street parking will result in the following:

- Removal of vegetated areas, including nine trees on the applicant's site
- Potential for increased traffic to the site
- Fewer instances of use of neighboring parking lots
- Increase in impervious surface which contributes to the urban heat island effect and stormwater runoff.

The analysis by John Replinger, the City's traffic engineer, found that:

> *"It is also reasonable to conclude that a few added trips that could potentially result from the increase in parking lot capacity would not alter the conclusions in the TAL. The removal of the five existing, angled parking spaces in the lot near the north access is a desirable change because it lessens the potential for traffic conflicts within the parking lot that could spill back onto Molalla Avenue. This change is highly desirable and more than makes up for any increase in traffic that could potentially result from the increased capacity of the parking lot."*

The negative impacts are mitigated by the proposed stormwater management, tree mitigation, and changes to circulation. Staff finds that adjacent sites will not be negatively impacted by the proposal.

4. Compatibility: The proposal is compatible with the character, scale and existing or planned uses of the surrounding neighborhood.
Surface parking lots surround the other commercial businesses in the area. The expansion of the parking lot is compatible with the existing commercial area.

The new parking lot could also present shared parking opportunities with future development that requires parking in the evening or at night, when the parking lot is not needed for the commercial building. The zoning of the area allows mixed use, restaurant, and residential uses that may be interested in shared parking opportunities.

6. *Safety: The proposal does not significantly impact the safety of adjacent properties and rights-of-way.*
The parking lot is designed in conformance with City standards, ensuring that turning, maneuvering and egress routes are adequately laid out for safe use.

The Traffic Analysis Letter was reviewed by the City's traffic consultant John Replinger, who found no safety impacts (Exhibit 4). In fact, the improvements to safety resulting from the removal of five parking spaces near the north entrance will increase safety.

6. Services: The proposal will not create a significant impact to public services, including fire and emergency services.

Finding: Complies as Proposed. The additional onsite parking proposed is not anticipated to utilize public service connections. A demand for new utility services is not required for the parking lot improvements (e.g. water or electricity). The need for fire or emergency services should be minimal, given no structures are proposed. No comments were received from Clackamas County Fire District.

17.52.020 - Number of automobile spaces required.

A. The number of parking spaces shall comply with the minimum and maximum standards listed in Table 17.52.020. The parking requirements are based on spaces per one thousand square feet net leasable area unless otherwise stated.

Table 17.52.020		
LAND USE	PARKING REQUIREMENTS	
	MINIMUM	MAXIMUM
Senior housing, including congregate care, residential care and assisted living facilities; nursing homes and other types of group homes	1 per 7 beds	1 per 5 beds

1. Multiple Uses. In the event several uses occupy a single structure or parcel of land, the total requirements for off-street parking shall be the sum of the requirements of the several uses computed separately.

Finding: Complies with Condition. The use is a memory care facility with rehabilitation care, which is considered assisted living use. The parking ratio is based on the number of beds. The facility contains 69 beds, which would allow for 14 parking spaces.

The parking currently provided includes 42 spaces on site. No on-street parking is located on Beavercreek or Molalla Avenue.

The applicant has requested a parking adjustment to increase the maximum parking spaces allowed to 63. If the adjustment is approved, the number of parking spaces will comply. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

2. Requirements for types of buildings and uses not specifically listed herein shall be determined by the community development director, based upon the requirements of comparable uses listed.

Finding: Not Applicable. The applicant has not proposed a use not specifically listed.

3. Where calculation in accordance with the above list results in a fractional space, any fraction less than one-half shall be disregarded and any fraction of one-half or more shall require one space.

Finding: Complies as Proposed. Fractions were rounded in accordance with this chapter.

4. The minimum required parking spaces shall be available for the parking of operable passenger automobiles of residents, customers, patrons and employees only, and shall not be used for storage of vehicles or materials or for the parking of vehicles used in conducting the business or use.

Finding: Complies as Proposed. The applicant's narrative states that parking spaces provided in the surface parking lots are used only for operable vehicles associated with visitor, employee, and business parking needs. The long-term storage of vehicles is not allowed.

5. A change in use within an existing habitable building located in the MUD Design District or the Willamette Falls Downtown District is exempt from additional parking requirements. Additions to an existing building and new construction are required to meet the minimum parking requirements for the areas as specified in Table 17.52.020 for the increased square footage.

Finding: Not Applicable. The applicant has not proposed to change the use of an existing building.

B. Parking requirements can be met either onsite, or offsite by meeting the following conditions:
1. Mixed Uses. If more than one type of land use occupies a single structure or parcel of land, the total requirements for off-street automobile parking shall be the sum of the requirements for all uses, unless it can be shown that the peak parking demands are actually less (e.g. the uses operate on different days or at different times of the day). In that case, the total requirements shall be reduced accordingly, up to a maximum reduction of fifty percent, as determined by the community development director.
2. Shared Parking. Required parking facilities for two or more uses, structures, or parcels of land may be satisfied by the same parking facilities used jointly, to the extent that the owners or operators show that the need for parking facilities does not materially overlay (e.g., uses primarily of a daytime versus nighttime nature), that the shared parking facility is within one thousand feet of the potential uses, and provided that the right of joint use is evidenced by a recorded deed, lease, contract, or similar written instrument authorizing the joint use.
3. On-Street Parking. On-street parking may be counted toward the minimum standards when it is on the street face abutting the subject land use. An on-street parking space must not obstruct a required clear vision area and it shall not violate any law or street standard. On-street parking for commercial uses shall conform to the following standards:
a. Dimensions. The following constitutes one on-street parking space:
1. Parallel parking, each [twenty-two] feet of uninterrupted and available curb;
2. [Forty-five/sixty] degree diagonal, each with [fifteen] feet of curb;
3. Ninety degree (perpendicular) parking, each with [twelve] feet of curb.
4. Public Use Required for Credit. On-street parking spaces counted toward meeting the parking requirements of a specific use may not be used exclusively by that use, but shall be available for general public use at all times. Signs or other actions that limit general public use of on-street spaces are prohibited.

Finding: Not applicable. The applicant does not propose on-street, shared parking, or have a mix of uses.

C. Reduction of the Number of Automobile Spaces Required. The required number of parking stalls may be reduced in the Downtown Parking Overlay District: Fifty percent reduction in the minimum number of spaces required is allowed prior to seeking further reductions in [sub]sections 2. and 3. below:
1. Transit Oriented Development. For projects not located within the Downtown Parking Overlay District, the community development director may reduce the required number of parking stalls up to twenty-five percent when it is determined that a project in a commercial center (sixty thousand square feet or greater of retail or office use measured cumulatively within a five hundred-foot radius) or multi-family development with over eighty units, is adjacent to or within one thousand three hundred twenty feet of an existing or planned public transit street and is within one thousand three hundred twenty feet of the opposite use (commercial center or multi-family development with over eighty units).

Finding: Not Applicable. The applicant has not requested to utilize the transit oriented development parking reduction.

2. Reduction in Parking for Tree Preservation. The community development director may grant an adjustment to any standard of this requirement provided that the adjustment preserves a regulated tree or grove so that the reduction in the amount of required pavement can help preserve existing healthy trees in an undisturbed, natural condition. The amount of reduction must take into consideration any unique site conditions and the impact of the

reduction on parking needs for the use, and must be approved by the community development director. This reduction is discretionary.

Finding: Not Applicable. The applicant has not requested to utilize the tree preservation parking reduction.

3. Transportation Demand Management. The community development director may reduce the required number of parking stalls up to twenty-five percent when a parking-traffic study prepared by a traffic engineer demonstrates:

Finding: Not Applicable. The applicant has requested to utilize the Transportation Demand Management parking reduction.

17.52.030 - Standards for automobile parking.

A. Access. Ingress and egress locations on public thoroughfares shall be located in the interests of public traffic safety. Groups of more than four parking spaces shall be so located and served by driveways so that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley. No driveway with a slope of greater than fifteen percent shall be permitted without approval of the city engineer.

Finding: Complies as Proposed. The applicant does not propose to change the location of ingress and egress. The slope of the driveway connecting the parking spaces to the street is proposed at less than 15 percent. The parking spaces that might require backing movements in the right of way are proposed to be relocated.

B. Surfacing. Required off-street parking spaces and access aisles shall have paved surfaces adequately maintained. The use of pervious asphalt/concrete and alternative designs that reduce storm water runoff and improve water quality pursuant to the city's stormwater and low impact development design standards are encouraged.

Finding: Complies as Proposed. The applicant has proposed paved surfaces for all off-street parking spaces and access aisles.

C. Drainage. Drainage shall be designed in accordance with the requirements of Chapter 13.12 and the city public works stormwater and grading design standards.

Finding: Please refer to the findings in Chapter 13.12 of this report.

D. Dimensional Standards.

1. Requirements for parking developed at varying angles are according to the table included in this section. A parking space shall not be less than seven feet in height when within a building or structure, and shall have access by an all-weather surface to a street or alley. Parking stalls in compliance with the American with Disabilities Act may vary in size in order to comply with the building division requirements. Up to thirty-five percent of the minimum required parking may be compact, while the remaining required parking stalls are designed to standard dimensions. The community development director may approve alternative dimensions for parking stalls in excess of the minimum requirement which comply with the intent of this chapter.

2. Alternative parking/plan. Any applicant may propose an alternative parking plan. Such plans are often proposed to address physically constrained or smaller sites, however innovative designs for larger sites may also be considered. In such situations, the community development director may approve an alternative parking lot plan with variations to parking dimensions of this section. The alternative shall be consistent with the intent of this chapter and shall create a safe space for automobiles and pedestrians while providing landscaping to the quantity and quality found within parking lot landscaping requirements.

PARKING *STANDARD*

PARKING ANGLE SPACE DIMENSIONS

A Parking Angle		*B Stall Width*	*C Stall to Curb*	*D Aisle Width*	*E Curb Length*	*F Overhang*
90 degrees	*Standard Compact*	*9' 8'*	*19.0' 16.0'*	*24' 22'*	*9' 8'*	*1.5*

Finding: Complies as proposed. The applicant has proposed twenty new on-site 90-degree parking stalls. The proposed aisle widths and sizes comply with this standard.
Of the 63 spaces on site, 28, or 44%, are proposed or existing compact size. The applicant has more than the minimum required spaces; any spaces over the minimum may be compact.

E. Carpool and Vanpool Parking. New developments with seventy-five or more parking spaces, and new hospitals, government offices, group homes, nursing and retirement homes, schools and transit park-and-ride facilities with fifty or more parking spaces, shall identify the spaces available for employee, student and commuter parking and designate at least five percent, but not fewer than two, of those spaces for exclusive carpool and vanpool parking. Carpool and vanpool parking spaces shall be located closer to the main employee, student or commuter entrance than all other employee, student or commuter parking spaces with the exception of ADA accessible parking spaces. The carpool/vanpool spaces shall be clearly marked "Reserved - Carpool/Vanpool Only."
Finding: Not applicable. The site does not contain 75 or more spaces.

17.52.040 - Bicycle parking standards.
A. Purpose-Applicability. To encourage bicycle transportation to help reduce principal reliance on the automobile, and to ensure bicycle safety and security, bicycle parking shall be provided in conjunction with all uses other than single-family dwellings or duplexes.
Finding: Complies as Proposed. The proposal includes construction of a parking lot, therefore, compliance with bicycle parking standards is required.

B. Number of Bicycle Spaces Required. For any use not specifically mentioned in Table A, the bicycle parking requirements shall be the same as the use which, as determined by the community development director, is most similar to the use not specifically mentioned. Calculation of the number of bicycle parking spaces required shall be determined in the manner established in Section 17.52.020 for determining automobile parking space requirements. Modifications to bicycle parking requirements may be made through the site plan and design, conditional use, or master plan review process.

*TABLE A Required Bicycle Parking Spaces**

Where two options for a requirement are provided, the option resulting in more bicycle parking applies. Where a calculation results in a fraction, the result is rounded up to the nearest whole number.

** Covered bicycle parking is not required for developments with two or fewer stalls.*

Required Bicycle Parking Spaces*

USE	*MINIMUM BICYCLE PARKING*	*MINIMUM BICYCLE PARKING - COVERED*
Nursing home or care facility	*1 per 30 auto spaces (minimum of two)*	*30% (minimum of one)*

** Covered bicycle parking is not required for developments with two or fewer stalls.*

Finding: Complies with Condition. No bicycle parking currently exists on site. The applicant has proposed 63 auto spaces and two bicycle parking spaces, which does not quite meet the require of one for every 30 spaces. The applicant shall install bicycle parking at the ratio of one per 30 auto spaces and shall ensure that at least one spaces is covered. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

C. Security of Bicycle Parking. Bicycle parking facilities shall be secured. Acceptable secured bicycle parking area shall be in the form of a lockable enclosure onsite, secure room in a building onsite, a covered or uncovered rack onsite, bicycle parking within the adjacent right-of-way or another form of secure parking where the bicycle can be stored, as approved by the decision maker. All bicycle racks and lockers shall be securely anchored to the ground or to a structure. Bicycle racks shall be designed so that bicycles may be securely locked to them without undue inconvenience and, when in the right-of-way shall comply with clearance and ADA requirements.
Finding: Complies with condition. The applicant's narrative identified that the proposed bicycle parking would be next to the building but did not show it on the site plan. Prior to issuance of permits, the

applicant shall include bicycle parking on the site plan and show details demonstrating that the parking is securely anchored. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

D. Bicycle parking facilities shall offer security in the form of either a lockable enclosure or a stationary rack to which the bicycle can be locked. All bicycle racks and lockers shall be securely anchored to the ground or to a structure. Bicycle racks shall be designed so that bicycles may be securely locked to them without undue inconvenience.

Finding: Please refer to the analysis in 17.52.040.C.

Location of Bicycle Parking:

1. Bicycle parking shall be located on-site, in one or more convenient, secure and accessible location. The city engineer and the community development Director may permit the bicycle parking to be provided within the right-of-way provided adequate clear zone and ADA requirements are met. If sites have more than one building, bicycle parking shall be distributed as appropriate to serve all buildings. If a building has two or more main building entrances, the review authority may require bicycle parking to be distributed to serve all main building entrances, as it deems appropriate.

Finding: Complies with condition. The applicant's narrative identified that the proposed bicycle parking would be next to the building but did not show it on the site plan. Prior to issuance of permits, the applicant shall include bicycle parking on the site plan and show details demonstrating that the parking is in a convenient, secure, and accessible location. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

2. Bicycle parking areas shall be clearly marked or visible from on-site buildings or the street. If a bicycle parking area is not plainly visible from the street or main building entrance, a sign must be posted indicating the location of the bicycle parking area. Indoor bicycle parking areas shall not require stairs to access the space unless approved by the community development director.

Finding: Complies with condition. The applicant's narrative identified that the proposed bicycle parking would be next to the building but did not show it on the site plan. Prior to issuance of permits, the applicant shall include bicycle parking on the site plan and show details demonstrating that the parking is clearly marked or visible from the street. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

3. All bicycle parking areas shall be located to avoid conflicts with pedestrian and motor vehicle movement.

a. Bicycle parking areas shall be separated from motor vehicle parking and maneuvering areas and from arterial streets by a barrier or a minimum of five feet.

b. Bicycle parking areas shall not obstruct pedestrian walkways; provided, however, that the review authority may allow bicycle parking in the right-of-way where this does not conflict with pedestrian accessibility.

Finding: Complies with condition. The applicant's narrative identified that the proposed bicycle parking would be next to the building but did not show it on the site plan. Prior to issuance of permits, the applicant shall include bicycle parking on the site plan and show details demonstrating that the parking is separated from vehicle parking and maneuvering areas by 5 feet and does not obstruct pedestrian walkways. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

***17.52.040.D.4**. Accessibility.*

a. Outdoor bicycle areas shall be connected to main building entrances by pedestrian accessible walkways.

b. Outdoor bicycle parking areas shall have direct access to a right-of-way.

c. Outdoor bicycle parking should be no farther from the main building entrance than the distance to the closest vehicle space, or fifty feet, whichever is less, unless otherwise determined by the community development director, city engineer, or planning commission.

Finding: Complies with condition. The applicant's narrative identified that the proposed bicycle parking would be next to the building but did not show it on the site plan. Prior to issuance of permits, the applicant shall include bicycle parking on the site plan and show details demonstrating that the parking is connected to main building entrances, has direct access from a right of way, and is closer to the building than the nearest vehicle parking. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

17.52.060 - Parking lot landscaping.
A. Development Standards.
1. The landscaping shall be located in defined landscaped areas that are uniformly distributed throughout the parking or loading area.
Finding: Complies as Proposed. The proposed landscaping throughout the parking lot is uniformly distributed. These landscape areas are uniformly distributed around the perimeter of the parking lot.

2. All areas in a parking lot not used for parking, maneuvering, or circulation shall be landscaped.
Finding: Complies as Proposed. All areas in the parking lot not used for parking, maneuvering, or circulation are proposed to be landscaped.

3. Parking lot trees shall be a mix of deciduous shade trees and coniferous trees. The trees shall be evenly distributed throughout the parking lot as both interior and perimeter landscaping to provide shade.
Finding: Complies as proposed. The landscape plan includes Maples, Zelkova, and Cypress trees to provide a mix.

4. Required landscaping trees shall be of a minimum two-inch minimum caliper size (though it may not be standard for some tree types to be distinguished by caliper), planted according to American Nurseryman Standards, and selected from the Oregon City Street Tree List;
Finding: Complies as Proposed. The landscape plan identifies 2" caliper trees.

5. Landscaped areas shall include irrigation systems unless an alternate plan is submitted, and approved by the community development director, that can demonstrate adequate maintenance;
Finding: Complies with Condition. The landscaping plan does not indicate any irrigation and the applicant did not submit an alternative plan. Prior to issuance of permits, the applicant shall demonstrate that irrigation will be included or propose an alternative that is acceptable to the Community Development Director. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

6. All plant materials, including trees, shrubbery and ground cover should be selected for their appropriateness to the site, drought tolerance, year-round greenery and coverage and staggered flowering periods. Species found on the Oregon City Native Plant List are strongly encouraged and species found on the Oregon City Nuisance Plant List are prohibited.
Finding: Complies with Condition. The plan submitted by the applicant was prepared by a landscape architect to assure appropriate species. One of the species, a Portuguese laurel, is the same or similar to a species on the City's nuisance plant list. Prior to issuance of permits, the applicant's landscape architect shall ensure that the Portuguese laurel species is not a nuisance species. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

7. The landscaping in parking areas shall not obstruct lines of sight for safe traffic operation and shall comply with all requirements of Chapter 10.32, Traffic Sight Obstructions.
Finding: Complies as Proposed. The proposed parking lot landscaping does not obstruct lines of sight for safe traffic operation or otherwise interfere with vehicular circulation.

8. Landscaping shall incorporate design standards in accordance with Chapter 13.12, Stormwater Management.
Finding: Please refer to the analysis in Chapter 13.12 of this report.

B. Perimeter Parking Lot Landscaping and Parking Lot Entryway/Right-of-Way Screening. Parking lots shall include a five-foot wide landscaped buffer where the parking lot abuts the right-of-way and/or adjoining properties. In order to provide connectivity between non-single-family sites, the community development director may approve an interruption in the perimeter parking lot landscaping for a single driveway where the parking lot abuts property designated as multi-family, commercial or industrial. Shared driveways and parking aisles that straddle a lot line do not need to meet perimeter landscaping requirements.
Finding: Complies with condition. The landscaping plan includes a 5-foot wide landscape buffer along all new perimeter parking lot areas. There are two existing mature trees in front of the building that are in the area where perimeter parking lot landscaping is proposed. If the applicant wishes to and is able to preserve the two trees instead of removing them to provide a reconfigured parking lot and landscaping area, the perimeter parking lot landscaping may be reduced or removed in this area through an alternative landscaping plan. The preserved trees and landscape around them will provide sufficient landscaping to meet the intent of this standard. If the trees are removed, the proposed perimeter landscaping meets this standard. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

1. The perimeter parking lot are[a] shall include:
a. Trees spaced a maximum of thirty-five feet apart (minimum of one tree on either side of the entryway is required). When the parking lot is adjacent to a public right-of-way, the parking lot trees shall be offset from the street trees;
Finding: Complies as Proposed. The perimeter parking lot landscaping includes trees spaced a maximum of 35 feet apart, and includes a tree on either side of the parking lot entryway.

b. Ground cover, such as wild flowers, spaced a maximum of 16-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and
Finding: Complies as Proposed. The perimeter parking lot landscaping includes groundcover and notes that bark mulch will not be used except under canopy of shrubs and trees.

c. An evergreen hedge screen of thirty to forty-two inches high or shrubs spaced no more than four feet apart on average. The hedge/shrubs shall be parallel to and not nearer than two feet from the right-of-way line. The required screening shall be designed to allow for free access to the site and sidewalk by pedestrians. Visual breaks, no more than five feet in width, shall be provided every thirty feet within evergreen hedges abutting public right-of-ways.
Finding: Complies as Proposed. Evergreen shrubs with a mature height between 3 and 5 feet are specified in the perimeter areas on the landscape plan.

C. Parking Area/Building Buffer. Parking areas shall be separated from the exterior wall of a structure, exclusive of pedestrian entranceways or loading areas, by one of the following:
1. Minimum five-foot wide landscaped planter strip (excluding areas for pedestrian connection) abutting either side of a parking lot sidewalk with:
a. Trees spaced a maximum of thirty-five feet apart;
b. Ground cover such as wild flowers, spaced a maximum of sixteen-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and
c. An evergreen hedge of thirty to forty-two inches or shrubs placed no more than four feet apart on average; or

2. Seven-foot sidewalks with shade trees spaced a maximum of thirty-five feet apart in three-foot by five-foot tree wells.

Finding: Complies as Proposed. The site is currently nonconforming as it does not meet this standard. The applicant has not proposed to change the parking spaces that border the building. Thus, no changes are required to the building buffer landscaping unless triggered by nonconforming upgrades.

D. Interior Parking Lot Landscaping. Surface parking lots shall have a minimum ten percent of the interior of the gross area of the parking lot devoted to landscaping to improve the water quality, reduce storm water runoff, and provide pavement shade. Interior parking lot landscaping shall not be counted toward the fifteen percent minimum total site landscaping required by Section 17.62.050(1) unless otherwise permitted by the dimensional standards of the underlying zone district. Pedestrian walkways or any impervious surface in the landscaped areas are not to be counted in the percentage. Interior parking lot landscaping shall include:

a. A minimum of one tree per six parking spaces.

b. Ground cover, such as wild flowers, spaced a maximum of sixteen-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees

c. Shrubs spaced no more than four feet apart on average.

Finding: Complies as Proposed. Twenty new parking spaces are proposed, requiring a minimum of four interior parking lot trees. More than four trees are proposed on the plan. Shrubs and groundcover are provided as required. The new parking lot area proposed is approximately 9,650 square feet, and the new proposed interior landscaping is approximately 2,120 square feet, or 22% of the parking lot.

d. No more than eight contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips shall be provided between rows of parking shall be a minimum of six feet in width and a minimum of ten feet in length.

Finding: Complies with condition. The parking lot includes no more than eight spaces in a row. One of the proposed islands is only 4 feet wide. The applicant shall ensure that all interior landscaping islands are at least six feet in width**. Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

e. Pedestrian walkways shall have shade trees spaced a maximum of every thirty-five feet in a minimum three-foot by five-foot tree wells; or

Trees spaced every thirty-five feet, shrubs spaced no more than four feet apart on average, and ground cover covering one hundred percent of the exposed ground. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.

Finding: Not Applicable. The applicant has not proposed pedestrian walkways within the parking area, therefore, this standard is not applicable.

E. Installation.

1. All landscaping shall be installed according to accepted planting procedures, according to American Nurseryman Standards.

2. The site, soils and proposed irrigation systems shall be appropriate for the healthy and long-term maintenance of the proposed plant species.

3. Certificates of occupancy shall not be issued unless the landscaping requirements have been met or other arrangements have been made and approved by the city, such as the posting of a surety.

Finding: Complies as Proposed. The applicant's narrative identified that all landscaping will be installed according to American Nurseryman standards. The applicant has proposed an alternative irrigation system for all landscaped areas.

17.52.070 - Alternative landscaping plan.

Finding: Not Applicable. The applicant has not proposed an alternative parking lot landscaping plan.

17.52.080 - Maintenance.
The owner, tenant and their agent, if any, shall be jointly and severally responsible for the maintenance of the site including but not limited to the off-street parking and loading spaces, bicycle parking and all landscaping which shall be maintained in good condition so as to present a healthy, neat and orderly appearance and shall be kept free from refuse and debris.
All plant growth in interior landscaped areas shall be controlled by pruning, trimming, or otherwise so that:
a. It will not interfere with the maintenance or repair of any public utility;
b. It will not restrict pedestrian or vehicular access; and
c. It will not constitute a traffic hazard due to reduced visibility.
Finding: Complies as Proposed. The applicant's narrative identified that the landscaped areas will be maintained by the owner.

17.52.090 - Loading areas.
B. Applicability.
1. Section 17.52.090 applies to uses that are expected to have service or delivery truck visits with a forty-foot or longer wheelbase, at a frequency of one or more vehicles per week. The city engineer and decision maker shall determine through site plan and design review the number, size, and location of required loading areas, if any.
Finding: Complies with condition. The applicant did not respond to this section. A loading zone on the north edge of the northern existing driveway is proposed, although this loading area would not proposed ample space for a truck with a forty-foot wheelbase. Prior to issuance of permits, the applicant shall provide information on the loading needs of the site and revise the loading plans as needed. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

CHAPTER 17.60 VARIANCES

***17.60.020** - Variances—Procedures.*
***17.60.020.A.** A request for a variance shall be initiated by a property owner or authorized agent by filing an application with the city recorder. The application shall be accompanied by a site plan, drawn to scale, showing the dimensions and arrangement of the proposed development. When relevant to the request, building plans may also be required. The application shall note the zoning requirement and the extent of the variance requested. Procedures shall thereafter be held under Chapter 17.50. In addition, the procedures set forth in subsection D. of this section shall apply when applicable.*
Finding: Complies as Proposed. The applicant submitted this Variance request.

***17.60.020.B**. A nonrefundable filing fee, as listed in Section 17.50.[0]80, shall accompany the application for a variance to defray the costs.*
Finding: Complies as Proposed. The applicant submitted a filing fee and the application was deemed complete .

***17.60.020.C**. Before the planning commission may act on a variance, it shall hold a public hearing thereon following procedures as established in Chapter 17.50. A Variance shall address the criteria identified in Section 17.60.030, Variances — Grounds.*
Finding: Complies as Proposed. The proposed Variance is a Type III application.

***17.60.020.D**. Minor variances, as defined in subsection E. of this section, shall be processed as a Type II decision, shall be reviewed pursuant to the requirements in Section 17.50.030B., and shall address the criteria identified in Section 17.60.030, Variance — Grounds.*
***17.60.020.E**. For the purposes of this section, minor variances shall be defined as follows:*
1. Variances to setback and yard requirements to allow additions to existing buildings so that the additions follow existing building lines;

2. Variances to width, depth and frontage requirements of up to twenty percent;
3. Variances to residential yard/setback requirements of up to twenty-five percent;
4. Variances to nonresidential yard/setback requirements of up to ten percent;
5. Variances to lot area requirements of up to five;
6. Variance to lot coverage requirements of up to twenty-five percent;
7. Variances to the minimum required parking stalls of up to five percent; and
8. Variances to the floor area requirements and minimum required building height in the mixed-use districts.
Finding: Not applicable. The request is not a minor variance.

***17.60.030** - Variance—Grounds.*
A variance may be granted only in the event that all of the following conditions exist:
***17.60.030.A**. That the variance from the requirements is not likely to cause substantial damage to adjacent properties by reducing light, air, safe access or other desirable or necessary qualities otherwise protected by this title;*
Finding: Complies as Proposed. The submitted the following response:

> *"The proposed variance to allow parking in front of the building will not have any effect on the adjacent properties because the building at its location are already existing and have been placed on the property in such a way for some time. No expansion to the building is proposed, so there will be no impact to available light or air to adjacent properties. The variance will provide improved safety to the existing access for the site by re-configuring the parking in the area of the entry."*

Staff concurs with the applicant that the proposal is not likely to cause substantial damage to adjacent properties.

***17.60.030.B**. That the request is the minimum variance that would alleviate the hardship;*
Finding: Complies as Proposed. The applicant has proposed to remove eight parking spaces in front of the building and to add 15 parking spaces in front of the building in a reconfiguration and expansion of the parking lot. The applicant proposed that 13 spaces in front of the building remain. The proposal would result in a total of 28 parking spaces in front of the existing building.

The applicant has proposed as many spaces as possible on the side of the building, while the remaining spaces that are desired are placed within available space in front of the building. The north and west sides of the site also have open space, but there is not ample space around the perimeter of the building to construct a driveway to these areas of the site; and furthermore, some of these open areas are utilized as open space for residents. The applicant has also attempted to find shared parking opportunities in the area, but has not been successful. Staff finds that there is no other place on the site to add additional parking; thus the request is the minimum variance.

***17.60.030.C**. Granting the variance will equal or exceed the purpose of the regulation to be modified.*
Finding: Complies with Condition. The purpose of requiring parking areas to be next to or behind a building rather than in front of it is to provide a pedestrian oriented streetscape with entrances on the street, to encourage walking and transit use and to support a vibrant and active public realm.

The building was constructed before this standard was in place, and parking spaces are currently placed in front of the building. The applicant has proposed to remove eight parking spaces in front of the building and to add 15 parking spaces in front of the building in a reconfiguration and expansion of the parking lot. The applicant proposed that 13 spaces in front of the building remain. The

proposal would result in a total of 28 parking spaces in front of the existing building, and additional street frontage that is bordered by parking spaces rather than a building.

By increasing the amount of parking in front and extending the parking area along the property frontage, the proposal does not equal or exceed the purpose of the standard. Staff recommends mitigation in 17.60.030.D that will create a more pedestrian oriented streetscape and equal the purpose of the standard. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

17.60.030.D*. Any impacts resulting from the adjustment are mitigated;*
Finding: Complies with condition. The purpose of requiring parking areas to be next to or behind a building rather than in front of it is to provide a pedestrian oriented streetscape with entrances on the street, to encourage walking and transit use and to support a vibrant and active public realm. The proposal would result in a total of 28 parking spaces in front of the existing building, and additional street frontage that is bordered by parking spaces rather than a building. By increasing the amount of parking in front and extending the parking area along the property frontage, this proposal impacts the quality of the pedestrian environment and detracts from a vibrant and active public realm. In order to mitigate this impact, staff recommends that the applicant provide pedestrian amenities in the space between the new parking spaces and the sidewalk, with one element required for each individual parking space in front of the building. The pedestrian amenities should include at least two different items from the list below:

- Bench, seat wall, or other outdoor seating
- Public art, interpretive panel, or sculpture
- Enhanced landscaping of 40 square feet
- Upsizing of proposed perimeter parking lot tree of one inch caliper
- Preservation of an existing tree within 20 feet of the right of way
- Bicycle rack installed on a concrete pad connected to the sidewalk (worth one element for every bike parking space provided; one staple rack would provide two spaces)

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

17.60.030.E*. No practical alternatives have been identified which would accomplish the same purpose and not require a variance; and*
Finding: Complies as Proposed. The applicant has proposed as many spaces as possible on the side of the building, while the remaining spaces that are desired are placed within available space in front of the building. The north and west sides of the site also have open space, but there is not ample space around the perimeter of the building to construct a driveway to these areas of the site; and furthermore, some of these open areas are utilized as open space for residents. Staff finds that there is no other place on the site to add additional parking. The applicant also points out that it is not practical to move the building. The applicant has also attempted to find shared parking opportunities in the area, but has not been successful.

17.60.030.F*. The variance conforms to the comprehensive plan and the intent of the ordinance being varied.*
Finding: Complies with Condition.

> ***Goal 1.1 Citizen Involvement Program*** *Implement a Citizen Involvement Program that will provide an active and systematic process for citizen participation in all phases of the land-use decision making process to enable citizens to consider and act upon a broad range of issues*

affecting the livability, community sustainability, and quality of neighborhoods and the community as a whole.
Policy 1.1.1 - *Utilize neighborhood associations as the vehicle for neighborhood-based input to meet the requirements of the Land Conservation and Development Commission (LCDC) Statewide Planning Goal 1, Citizen Involvement. The Citizen Involvement Committee (CIC) shall serve as the officially recognized citizen committee needed to meet LCDC Statewide Planning Goal 1.*
Policy 1.2.1 - Encourage citizens to participate in appropriate government functions and land-use planning.
Policy 1.4.1 - *Notify citizens about community involvement opportunities when they occur.*
Finding: Complies as proposed. The applicant held a neighborhood meeting prior to submittal of a complete application. Furthermore, the application was posted on the City's website, posted in a local newspaper and signs were posted on the subject site informing the public. In addition, notice of the proposal was mailed to all property owners within 300 feet of the site and emailed to a variety of agencies, as well as each Citizen Involvement Committee member and each neighborhood association chair. Each of the notifications informed the public of the proposal and invited applicants to comment on the proposal. Lastly, the agenda for each Planning Commission hearing is posted at a variety of City facilities and emailed to the public.

Goal 2.1 Efficient Use of Land
Ensure that property planned for residential, commercial, office, and industrial uses is used efficiently and that land is developed following principles of sustainable development.
Finding: Complies as proposed. The available site area is being maximized in its use.

Goal 2.4 *Neighborhood Livability - Provide a sense of place and identity for residents and visitors by protecting and maintaining neighborhoods as the basic unit of community life in Oregon City while implementing the goals and policies of the other sections of the Comprehensive Plan.*
Policy 2.4.2 *Strive to establish facilities and land uses in every neighborhood that help give vibrancy, a sense of place, and a feeling of uniqueness; such as activity centers and points of interest.*
Finding: Complies with condition. By increasing the amount of parking in front and extending the parking area along the property frontage, this proposal impacts the quality of the pedestrian environment and detracts from a vibrant and active public realm. In order to mitigate this impact, staff recommends that the applicant provide pedestrian amenities in the space between the new parking spaces and the sidewalk, with one element required for each individual parking space in front of the building. The pedestrian amenities should include at least two different items from the list below:

- Bench, seat wall, or other outdoor seating
- Public art, interpretive panel, or sculpture
- Enhanced landscaping of 40 square feet
- Upsizing of proposed perimeter parking lot tree of one inch caliper
- Preservation of an existing tree within 20 feet of the right of way
- Bicycle rack installed on a concrete pad connected to the sidewalk (worth one element for every bike parking space provided; one staple rack would provide two spaces)

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

Goal 6.1: Air Quality

Promote the conservation, protection and improvement of the quality of the air in Oregon City.
Policy 6.1.1 Promote land use patterns that reduce the need for distance travel by single-occupant vehicles and increases the opportunities for walking, biking and/or transit to destinations such as places of employment, shopping and education.
Policy 6.1.2 Ensure that development practices comply with or exceed regional, state, and federal standards for air quality.
Policy 6.1.4 Encourage the planting and maintenance of the city's tree canopy to allow natural systems to improve air quality.
Finding: Complies with Condition. The site aligns with the surrounding neighborhood and is easily accessible via walking, bicycling, and transit. The proposal to increase parking spaces on the site may lead to increased driving, which is bad for air quality. The applicant has not justified the full request of 63 spaces, which is 39 spaces above the permitted maximum (see findings in 17.52.015). The applicant proposes tree removal onsite to provide room for the increase in parking spaces. The applicant shall reduce the total parking to 58 spaces, and preserve existing trees to the maximum extent practicable and shall meet the full tree mitigation requirements in Chapter 17.41. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

CHAPTER 12.04 - STREETS SIDEWALKS AND PUBLIC PLACES

12.04.003 Applicability
A. Compliance with this chapter is required for all Land Divisions, Site Plan and Design Review, Master Plan, Detailed Development Plan and Conditional Use applications and all public improvements.
B. Compliance with this chapter is also required for new construction or additions which exceed fifty percent of the existing square footage, of all single and two-family dwellings. All applicable single and two-family dwellings shall provide any necessary dedications, easements or agreements as identified in the transportation system plan and this chapter. In addition, the frontage of the site shall comply with the following prioritized standards identified in this chapter:

1. *Improve street pavement, construct curbs, gutters, sidewalks and planter strips; and*
2. *Plant street trees.*

The cost of compliance with the standards identified in 12.04.003.B.1 and 12.04.003.B.2 is limited to ten percent of the total construction costs. The value of the alterations and improvements as determined by the community development director is based on the entire project and not individual building permits. It is the responsibility of the applicant to submit to the community development director the value of the required improvements. Additional costs may be required to comply with other applicable requirements associated with the proposal such as access or landscaping requirements.
Finding: Applicable. The applicant applied for a Site Plan and Design Review, therefore this chapter is applicable.

12.04.005 Jurisdiction and management of the public rights-of-way
A. The city has jurisdiction and exercises regulatory management over all public rights-of-way within the city under authority of the City Charter and state law by issuing separate public works right-of-way permits or permits as part of issued public infrastructure construction plans. No work in the public right-of-way shall be done without the proper permit. Some public rights-of-way within the city are regulated by the State of Oregon Department of Transportation (ODOT) or Clackamas County and as such, any work in these streets shall conform to their respective permitting requirements.
B. Public rights-of-way include, but are not limited to, streets, roads, highways, bridges, alleys, sidewalks, trails, paths, public easements and all other public ways or areas, including the subsurface under and air space over these areas.

C. The city has jurisdiction and exercises regulatory management over each public right-of-way whether the city has a fee, easement, or other legal interest in the right-of-way. The city has jurisdiction and regulatory management of each right-of-way whether the legal interest in the right-of-way was obtained by grant, dedication, prescription, reservation, condemnation, annexation, foreclosure or other means.
D. No person may occupy or encroach on a public right-of-way without the permission of the city. The city grants permission to use rights-of-way by franchises and permits.
E. The exercise of jurisdiction and regulatory management of a public right-of-way by the city is not official acceptance of the right-of-way, and does not obligate the city to maintain or repair any part of the right-of-way.
Finding: Complies as proposed. By submission of the application, the applicant has acknowledged the City's jurisdiction and management of the public right-of-way.

12.04.007 Modifications.
The review body may consider modification of this standard resulting from constitutional limitations restricting the City's ability to require the dedication of property or for any other reason, based upon the criteria listed below and other criteria identified in the standard to be modified. All modifications shall be processed through a Type II Land Use application and may require additional evidence from a transportation engineer or others to verify compliance. Compliance with the following criteria is required:

- *A. The modification meets the intent of the standard;*
- *B. The modification provides safe and efficient movement of pedestrians, motor vehicles, bicyclists and freight;*
- *C. The modification is consistent with an adopted plan; and*
- *D. The modification is complementary with a surrounding street design; or, in the alternative,*
- *E. If a modification is requested for constitutional reasons, the applicant shall demonstrate the constitutional provision or provisions to be avoided by the modification and propose a modification that complies with the state or federal constitution. The City shall be under no obligation to grant a modification in excess of that which is necessary to meet its constitutional obligations.*

Finding: Not applicable. The applicant has not requested any modifications.

12.04.010 Construction specifications—Improved streets.
All sidewalks hereafter constructed in the city on improved streets shall be constructed to city standards and widths required in the Oregon City Transportation System Plan. The curb shall be constructed at the same time as the construction of the sidewalk and shall be located as provided in the ordinance authorizing the improvement of said street next proceeding unless otherwise ordered by the city commission. Both sidewalks and curbs are to be constructed according to plans and specifications provided by the city engineer.
Finding: Complies with Condition. See section 12.040.180 B for findings.

12.04.020 Construction specifications—Unimproved streets.
Sidewalks constructed on unimproved streets shall be constructed of concrete according to lines and grades established by the city engineer and approved by the city commission. On unimproved streets curbs do not have to be constructed at the same time as the sidewalk.
Finding: Not Applicable. The applicant has not proposed to construct any infrastructure within an unimproved street.

12.04.025 - Street design—Driveway Curb Cuts.
12.04.025.A. One driveway shall be allowed per frontage. In no case shall more than two driveways be allowed on any single or two-family residential property with multiple frontages.
12.04.025.B. With the exception of the limitations identified in 12.04.025.C, all driveway curb cuts shall be limited to the following dimensions.

Property Use	*Minimum Driveway Width at sidewalk or property line*	*Maximum Driveway Width at sidewalk or property line*
Single or Two-Family Dwelling with one Car Garage/Parking Space	*10 feet*	*12 feet*

Single or Two-Family Dwelling with two Car Garage/Parking Space	*12 feet*	*24 feet*
Single or Two-Family Dwelling with three or more Car Garages/Parking Space	*18 feet*	*30 feet*
Non Residential or Multi-Family Residential Driveway Access	*15 feet*	*40 feet*

The driveway width abutting the street pavement may be extended 3 feet on either side of the driveway to accommodate turn movements. Driveways may be widened onsite in locations other than where the driveway meets sidewalk or property line (for example between the property line and the entrance to a garage).
12.04.025.C. The decision maker shall be authorized through a Type II process, unless another procedure applicable to the proposal applies, to minimize the number and size of curb cuts (including driveways) as far as practicable for any of the following purposes:

1. *To provide adequate space for on-street parking;*
2. *To facilitate street tree planting requirements;*
3. *To assure pedestrian and vehicular safety by limiting vehicular access points; and*
4. *To assure that adequate sight distance requirements are met.*
    a. *Where the decision maker determines any of these situations exist or may occur due to the approval of a proposed development for non-residential uses or attached or multi-family housing, a shared driveway shall be required and limited to twenty-four feet in width adjacent to the sidewalk or property line and may extend to a maximum of thirty feet abutting the street pavement to facilitate turning movements.*
    b. *Where the decision maker determines any of these situations exist or may occur due to approval of a proposed development for detached housing within the "R-5" Single –Family Dwelling District or "R-3.5" Dwelling District, driveway curb cuts shall be limited to twelve feet in width adjacent to the sidewalk or property line and may extend to a maximum of eighteen feet abutting the street pavement to facilitate turning movements.*

12.04.025.D. For all driveways, the following standards apply.
1. Each new or redeveloped curb cut shall have an approved concrete approach or asphalted street connection where there is no concrete curb and a minimum hard surface for at least ten feet and preferably twenty feet back into the lot as measured from the current edge of street pavement to provide for controlling gravel tracking onto the public street. The hard surface may be concrete, asphalt, or other surface approved by the city engineer.
2. Driving vehicles, trailers, boats, or other wheeled objects across a sidewalk or roadside planter strip at a location other than an approved permanent or city-approved temporary driveway approach is prohibited. Damages caused by such action shall be corrected by the adjoining property owner.
3. Placing soil, gravel, wood, or other material in the gutter or space next to the curb of a public street with the intention of using it as a permanent or temporary driveway is prohibited. Damages caused by such action shall be corrected by the adjoining property owner.
4. Any driveway built within public street or alley right-of-way shall be built and permitted per city requirements as approved by the city engineer.
12.04.025.E. Exceptions. The public works director reserves the right to waive this standard, if it is determined through a Type II decision including written findings, that it is in the best interest of the public to do so.
Finding: Complies as conditioned. Two driveways on Molalla Avenue are existing; no changes are proposed. A separate condition of approval requires modification to the existing driveways to improve safety on Molalla Avenue. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

12.04.030 Maintenance and repair.
The owner of land abutting the street where a sidewalk has been constructed shall be responsible for maintaining said sidewalk and abutting curb, if any, in good repair.
Finding: Complies as Proposed. The applicant is responsible for maintaining said sidewalk and abutting curb.

12.04.031 Liability for sidewalk injuries.
A. The owner or occupant of real property responsible for maintaining the adjacent sidewalk shall be liable to any person injured because of negligence of such owner or occupant in failing to maintain the sidewalk in good condition.

B. If the city is required to pay damages for an injury to persons or property caused by the failure of a person to perform the duty that this ordinance imposes, the person shall compensate the city for the amount of the damages paid. The city may maintain an action in a court of competent jurisdiction to enforce this section.
Finding: Not Applicable. This is not a criterion for this development.

12.04.032 Required sidewalk repair.
A. When the public works director determines that repair of a sidewalk is necessary he or she shall issue a notice to the owner of property adjacent to the sidewalk.
B. The notice shall require the owner of the property adjacent to the defective sidewalk to complete the repair of the sidewalk within ninety days after the service of notice. The notice shall also state that if the repair is not made by the owner, the city may do the work and the cost of the work shall be assessed against the property adjacent to the sidewalk.
C. The public works director shall cause a copy of the notice to be served personally upon the owner of the property adjacent to the defective sidewalk, or the notice may be served by registered or certified mail, return receipt requested. If after diligent search the owner is not discovered, the public works director shall cause a copy of the notice to be posted in a conspicuous place on the property, and such posting shall have the same effect as service of notice by mail or by personal service upon the owner of the property.
D. The person serving the notice shall file with the city recorder a statement stating the time, place and manner of service or notice.
Finding: Not Applicable. The applicant has not proposed and is not required to repair a sidewalk.

12.04.033 City may do work.
If repair of the sidewalk is not completed within ninety days after the service of notice, the public works director shall carry out the needed work on the sidewalk. Upon completion of the work, the public works director shall submit an itemized statement of the cost of the work to the finance director. The city may, at its discretion, construct, repair or maintain sidewalks deemed to be in disrepair by the public works director for the health, safety and general welfare of the residents of the city.
Finding: Not Applicable. This is not a criterion for this development because no sidewalk repair is required.

12.04.034 Assessment of costs.
Upon receipt of the report, the finance director shall assess the cost of the sidewalk work against the property adjacent to the sidewalk. The assessment shall be a lien against the property and may be collected in the same manner as is provided for in the collection of street improvement assessment.
Finding: Not Applicable. This is not a criterion for this development because no sidewalk repair is required.

12.04.040 Streets--Enforcement.
Any person whose duty it is to maintain and repair any sidewalk, as provided by this chapter, and who fails to do so shall be subject to the enforcement procedures of Chapters 1.16, 1.20 and 1.24. Failure to comply with the provisions of this chapter shall be deemed a nuisance. Violation of any provision of this chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.
Finding: Not Applicable. This is not a criterion for this development.

***12.04.045** Street design – Constrained local streets and/or rights-of-way*
Any accessway with a pavement width of less than thirty-two feet shall require the approval of the city engineer, community development director and fire chief and shall meet minimum life safety requirements, which may include fire suppression devices as determined by the fire marshal to assure an adequate level of fire and life safety. The standard width for constrained streets is twenty feet of paving with no on-street parking and twenty-eight feet with on-street parking on one side only. Constrained local streets shall maintain a twenty-foot wide unobstructed accessway. Constrained local streets and/or right-of-way shall comply with necessary slope easements, sidewalk easements and altered curve radius, as approved by the city engineer and community development director.

Table 12.04.045		
STREET DESIGN STANDARDS FOR LOCAL CONSTRAINED STREETS		
	Minimum	*Required*

Type of Street	*Right-of-way*	*Pavement Width*
Constrained local street	*20 to 40*	*20 to less than 32 feet*

Finding: Not Applicable. The applicant has not proposed a constrained street.

12.04.050 Retaining walls--Required.
Every owner of a lot within the city, abutting upon an improved street, where the surface of the lot or tract of land is above the surface of the improved street and where the soil or earth from the lot, or tract of land is liable to, or does slide or fall into the street or upon the sidewalk, or both, shall build a retaining wall, the outer side of which shall be on the line separating the lot, or tract of land from the improved street, and the wall shall be so constructed as to prevent the soil or earth from the lot or tract of land from falling or sliding into the street or upon the sidewalk, or both, and the owner of any such property shall keep the wall in good repair.
Finding: Not Applicable. Applicant is not proposing construction of a retaining wall.

12.04.060 Retaining walls--Maintenance.
When a retaining wall is necessary to keep the earth from falling or sliding onto the sidewalk or into a public street and the property owner or person in charge of that property fails or refuses to build such a wall, such shall be deemed a nuisance. The violation of any provision of this chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.
Finding: Not Applicable. Applicant is not proposing construction of a retaining wall.

12.04.070 Removal of sliding dirt.
It shall be the duty of the owner of any property as mentioned in Section 12.04.050, and in case the owner is a nonresident, then the agent or other person in charge of the same, to remove from the street or sidewalk or both as the case may be, any and all earth or dirt falling on or sliding into or upon the same from the property, and to build and maintain in order at all times, the retaining wall as herein required; and upon the failure, neglect or refusal of the land owner, the agent or person in charge of the same to clean away such earth or dirt, falling or sliding from the property into the street or upon the sidewalk, or both, or to build the retaining wall, shall be deemed guilty of a misdemeanor.
Finding: Not Applicable. The applicant has not proposed and is not required to remove sliding dirt with this application.

12.04.080 Excavations--Permit required.
It shall be unlawful for any person to dig up, break, excavate, disturb, dig under or undermine any public street or alley, or any part thereof or any macadam, gravel, or other street pavement or improvement without first applying for and obtaining from the engineer a written permit so to do.
Finding: Not applicable. Applicant will be permitted for excavations through Public Works construction plan review.

12.04.090 Excavations--Permit restrictions.
The permit shall designate the portion of the street to be so taken up or disturbed, together with the purpose for making the excavation, the number of days in which the work shall be done, and the trench or excavation to be refilled and such other restrictions as may be deemed of public necessity or benefit.
Finding: Not applicable. Applicant will be permitted for excavations through Public Works construction plan review.

12.04.095 - *Street Design—Curb Cuts.*
To assure public safety, reduce traffic hazards and promote the welfare of pedestrians, bicyclists and residents of the subject area, such as a cul-de-sac or dead-end street, the decision maker shall be authorized to minimize the number and size of curb cuts (including driveways) as far as practicable where any of the following conditions are necessary:
A. To provide adequate space for on-street parking;
B. To facilitate street tree planting requirements;
C. To assure pedestrian and vehicular safety by limiting vehicular access points; and

D. To assure that adequate sight distance requirements are met.
Where the decision maker determines any of these situations exist or may occur due to approval of a proposed development, single residential driveway curb cuts shall be limited to twelve feet in width adjacent to the sidewalk and property line and may extend to a maximum of eighteen feet abutting the street pavement to facilitate turning movements. Shared residential driveways shall be limited to twenty-four feet in width adjacent to the sidewalk and property line and may extend to a maximum of thirty feet abutting the street pavement to facilitate turning movements. Non-residential development driveway curb cuts in these situations shall be limited to the minimum required widths based on vehicle turning radii based on a professional engineer's design submittal and as approved by the decision maker.
Finding: Not applicable. The decision maker has not exercised the authority to minimize the number and size of curb cuts beyond what has been proposed by the applicant.

12.04.100 Excavations – Restoration of Pavement
Whenever any excavation shall have been made in any pavement or other street improvement on any street or alley in the city for any purpose whatsoever under the permit granted by the engineer, it shall be the duty of the person making the excavation to put the street or alley in as good condition as it was before it was so broken, dug up or disturbed, and shall remove all surplus dirt, rubbish, or other material from the street or alley.
Finding: Complies as conditioned. The applicant has not proposed work in the public right-of-way that will require pavement restoration.

12.04.110 Excavations--Nuisance--Penalty.
Any excavation in violation of this chapter shall be deemed a nuisance. Violation of any provision of this chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.
Finding: Not applicable. This is not a criterion for this development.

12.04.120 Obstructions – Permit Required
Finding: Not applicable. This is not a criterion for this development.

12.04.130 Obstructions--Sidewalk sales.
A. It is unlawful for any person to use the public sidewalks of the city for the purpose of packing, unpacking or storage of goods or merchandise or for the display of goods or merchandise for sale. It is permissible to use the public sidewalks for the process of expeditiously loading and unloading goods and merchandise.
B. The city commission may, in its discretion, designate certain areas of the city to permit the display and sale of goods or merchandise on the public sidewalks under such conditions as may be provided.
Finding: Not applicable. This is not a criterion for this development.

12.04.140 Obstructions--Nuisance--Penalty.
Any act or omission in violation of this chapter shall be deemed a nuisance. Violation of any provision of this chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.
Finding: Not applicable. This is not a criterion for this development.

12.04.150 - Street and alley vacations—Cost.
At the time of filing a petition for vacation of a street, alley or any part thereof, a fee as established by city commission resolution shall be paid to the city.
Finding: Not Applicable. The applicant has not proposed a street or alley vacation with this application.

12.04.160 Street vacations--Restrictions.
The commission, upon hearing such petition, may grant the same in whole or in part, or may deny the same in whole or in part, or may grant the same with such reservations as would appear to be for the public interest, including reservations pertaining to the maintenance and use of underground public utilities in the portion vacated.
Finding: Not Applicable. The applicant has not proposed a street or alley vacation with this application.

12.04.170 - Street design—Purpose and general provisions.

All development shall be in conformance with the policies and design standards established by this Chapter and with applicable standards in the city's public facility master plan and city design standards and specifications. In reviewing applications for development, the city engineer shall take into consideration any approved development and the remaining development potential of adjacent properties. All street, water, sanitary sewer, storm drainage and utility plans associated with any development must be reviewed and approved by the city engineer prior to construction. All streets, driveways or storm drainage connections to another jurisdiction's facility or right-of-way must be reviewed by the appropriate jurisdiction as a condition of the preliminary plat and when required by law or intergovernmental agreement shall be approved by the appropriate jurisdiction.

Finding: Complies as Conditioned. The development shall comply with all current Oregon City Public Works design standards, specifications, codes, and policies.

The development's engineer(s) shall schedule a pre-design meeting with Oregon City staff prior to official review of the development construction plans.

The applicant shall provide construction plans, stamped and signed by a professional engineer licensed in the State of Oregon, containing street, grading, stormwater, sanitary sewer and water infrastructure improvements that conforms to all current Oregon City Public Works standards, specifications, codes, and policies for review and approval by the City.

The engineering plans shall provide a local benchmark onsite using the NAVD88 datum.

The workmanship and materials for any work performed under permits issued by Oregon City Public Works shall be in accordance with the edition of the "Oregon Standard Specifications for Construction" as prepared by the Oregon Department of Transportation (ODOT) and the Oregon Chapter of American Public Works Association (APWA) and as modified and adopted by the city.

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

12.04.175 Street Design--Generally.

The location, width and grade of street shall be considered in relation to: existing and planned streets, topographical conditions, public convenience and safety for all modes of travel, existing and identified future transit routes and pedestrian/bicycle accessways, and the proposed use of land to be served by the streets. The street system shall assure an adequate traffic circulation system with intersection angles, grades, tangents and curves appropriate for the traffic to be carried considering the terrain. To the extent possible, proposed streets shall connect to all existing or approved stub streets that abut the development site. The arrangement of streets shall either:

A. Provide for the continuation or appropriate projection of existing principal streets in the surrounding area and on adjacent parcels or conform to a plan for the area approved or adopted by the city to meet a particular situation where topographical or other conditions make continuance or conformance to existing streets impractical;

B. Where necessary to give access to or permit a satisfactory future development of adjoining land, streets shall be extended to the boundary of the development and the resulting dead-end street (stub) may be approved with a temporary turnaround as approved by the city engineer. Notification that the street is planned for future extension shall be posted on the stub street until the street is extended and shall inform the public that the dead-end street may be extended in the future. Access control in accordance with section 12.04 shall be required to preserve the objectives of street extensions.

Finding: See findings from section 12.04.180 of this document.

12.04.180 Street Design.

All development regulated by this Chapter shall provide street improvements in compliance with the standards in Figure 12.04.180 depending on the street classification set forth in the Transportation System Plan and the Comprehensive Plan designation of the adjacent property, unless an alternative plan has been adopted. The standards provided below are maximum design standards and may be reduced with an alternative street design which may be approved based on the modification criteria in 12.04.007. The steps for reducing the maximum design below are found in the Transportation System Plan.

Table 12.04.180 Street Design

To read the table below, select the road classification as identified in the Transportation System Plan and the Comprehensive Plan designation of the adjacent properties to find the maximum design standards for the road

cross section. If the Comprehensive Plan designation on either side of the street differs, the wider right-of-way standard shall apply.

Road Classification	Comprehensive Plan Designation	Right-of-Way Width	Pavement Width	Public Access	Sidewalk	Landscape Strip	Bike Lane	Street Parking	Travel Lanes	Median
Major Arterial	Mixed Use, Commercial or Public/Quasi Public	116 ft.	94 ft.	0.5 ft.	10.5 ft. sidewalk including 5 ft.x5 ft. tree wells		6 ft.	8 ft.	(5) 12 ft. Lanes	6 ft.
	Industrial	120 ft.	88 ft.	0.5 ft.	5 ft.	10.5 ft.	6 ft.	N/A	(5) 14 ft. Lanes	6 ft.
	Residential	126 ft.	94 ft.	0.5 ft.	5 ft.	10.5 ft.	6 ft.	8 ft.	(5) 12 ft. Lanes	6 ft.

Road Classification	Comprehensive Plan Designation	Right-of-Way Width	Pavement Width	Public Access	Sidewalk	Landscape Strip	Bike Lane	Street Parking	Travel Lanes	Median
Minor Arterial	Mixed Use, Commercial or Public/Quasi Public	116 ft.	94 ft.	0.5 ft.	10.5 ft. sidewalk including 5 ft.x5 ft. tree wells		6 ft.	8 ft.	(5) 12 ft. Lanes	6 ft.
	Industrial	118 ft.	86 ft.	0.5 ft.	5 ft.	10.5 ft.	6 ft.	7 ft.	(5) 12 ft. Lanes	N/A
	Residential	100 ft.	68 ft.	0.5 ft.	5 ft.	10.5 ft.	6 ft.	7 ft.	(3) 12 ft. Lanes	6 ft.

Road Classification	Comprehensive Plan Designation	Right-of-Way Width	Pavement Width	Public Access	Sidewalk	Landscape Strip	Bike Lane	Street Parking	Travel Lanes	Median
Collector	Mixed Use, Commercial or Public/Quasi Public	86 ft.	64 ft.	0.5 ft.	10.5 ft. sidewalk including 5 ft.x5 ft. tree wells		6 ft.	8 ft.	(3) 12 ft. Lanes	N/A
	Industrial	88 ft.	62 ft.	0.5 ft.	5 ft.	7.5 ft.	6 ft.	7 ft.	(3) 12 ft. Lanes	N/A
	Residential	85 ft.	59 ft.	0.5 ft.	5 ft.	7.5 ft.	6 ft.	7 ft.	(3) 11 ft. Lanes	N/A

Road Classification	Comprehensive Plan Designation	Right-of-Way Width	Pavement Width	Public Access	Sidewalk	Landscape Strip	Bike Lane	Street Parking	Travel Lanes	Median
Local	Mixed Use, Commercial or Public/Quasi Public	62 ft.	40 ft.	0.5 ft.	10.5 ft. sidewalk including 5 ft.x5 ft. tree wells		N/A	8 ft.	(2) 12 ft. Lanes	N/A
	Industrial	60 ft.	38 ft.	0.5 ft.	5 ft.	5.5 ft.	(2) 19 ft. Shared Space			N/A
	Residential	54 ft.	32 ft.	0.5 ft.	5 ft.	5.5 ft.	(2) 16 ft. Shared Space			N/A

1. Pavement width includes, bike lane, street parking, travel lanes and median.

2. Public access, sidewalks, landscape strips, bike lanes and on-street parking are required on both sides of the street in all designations. The right-of-way width and pavement widths identified above include the total street section.

3. A 0.5' foot curb is included in landscape strip or sidewalk width.
4. Travel lanes may be through lanes or turn lanes.
5. The 0.5' foot public access provides access to adjacent public improvements.
6. Alleys shall have a minimum right-of-way width of 20 feet and a minimum pavement width of 16 feet. If alleys are provided, garage access shall be provided from the alley.

Finding: Complies with Condition. Beavercreek Road is a Minor Arterial and the development property is zoned as "Commercial". Therefore, Beavercreek Road may be required to have 36 feet of pavement on the development side of the centerline to accommodate the following: 6-foot-wide bike lane, (2) 12-foot-wide lanes, 6-foot-wide half lane and 6-foot-wide median. The frontage of Beavercreek Road has an existing road width of approximately 36 feet on the development side which meets city code requirements. The existing frontage of Beavercreek Road has a 5.5-foot-wide curb tight sidewalk which does not meet city code requirement of a 10-foot-wide sidewalk which has 5-foot by 5-foot tree wells and a 0.5-foot public access. However, the sidewalk improvements and street parking would not be practical because there are existing city utilities behind the sidewalk which would conflict with a widened sidewalk or the addition of street parking. Therefore, no frontage improvements are required along the frontage of Beavercreek Road.

Molalla Avenue is classified as a Major Arterial by the Oregon City Transportation System Plan (TSP) and the development property is zoned "Commercial". Based on city code Table 12.04.180, the maximum street improvements required for Molalla Avenue, on the development side of the centerline, is 58 feet of ROW consisting of 47 feet of pavement and 10.5 feet of sidewalk (including 0.5 ft of curb and 5ft x 5ft tree wells). The frontage of Molalla Avenue has an existing road width of approximately 40 to 20 feet on the development side which does not meet city code requirements and the development has not proposed to improve the frontage of Molalla Avenue to meet those requirements. As a development regulated by this Chapter, the development is required to provide street improvements in compliance with the standards in Figure 12.04.180. However, the city has a capital improvement (project CI 18-004, Molalla Avenue Phase 3) planned for Molalla Avenue which will widen the road and provide frontage improvements. Standards identified in Table 12.04.180 would be required, due to the addition of parking spaces and the intensification of the site, if the city had no capital improvements planned. Therefore, the applicant will be required to meet to the code requirements to the maximum extent practicable. To do this, the applicant shall dedicate ROW along the frontage of Molalla Avenue to accommodate city capital improvement project CI 18-004 (Molalla Avenue Phase 3) and pay fee-in-lieu of constructing sidewalk and installation of decorative street lighting along the frontage of the property. Right-of-way dedication shall be in-lieu of pavement widening.
Along the frontage of Molalla Avenue, the development shall dedicate ROW beginning at a 3' offset (parallel to the existing ROW line) from the northern most property corner and ending a 9' offset (parallel to the existing ROW line) from existing eastern most property corner. The new ROW line shall intersect the two aforementioned points. The applicant shall relocate or remove all private structures, signs or utilities located within the ROW dedication. The cost estimate for project CI 18-004 (Molalla Avenue Phase 3) estimates the cost to construct sidewalk to be $10.00 per square foot; the frontage of the development property is approximately 330 feet long and the sidewalk across the frontage is to be 10 feet in width; therefore, the cost to construct sidewalk along the development property frontage is estimated to be $33,000 ($10x10ftx333=$33,000).
The applicant shall provide a fee-in-lieu of $33,000 for the constructing a 10-foot-wide sidewalk along the property frontage of Molalla Avenue.

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

12.04.185 Street Design--Access Control.

A. A street which is dedicated to end at the boundary of the development or in the case of half-streets dedicated along a boundary shall have an access control granted to the City as a City controlled plat restriction for the purposes of controlling ingress and egress to the property adjacent to the end of the dedicated street. The access control restriction shall exist until such time as a public street is created, by dedication and accepted, extending the street to the adjacent property.
B. The City may grant a permit for the adjoining owner to access through the access control.
C. The plat shall contain the following access control language or similar on the face of the map at the end of each street for which access control is required: "Access Control (See plat restrictions)."
D. Said plats shall also contain the following plat restriction note(s): "Access to (name of street or tract) from adjoining tracts (name of deed document number[s]) shall be controlled by the City of Oregon City by the recording of this plat, as shown. These access controls shall be automatically terminated upon the acceptance of a public road dedication or the recording of a plat extending the street to adjacent property that would access through those Access Controls."
Finding: Not applicable. No dead-end streets or streets that end at the boundary of the development are proposed or required for this development.

12.04.190 Street Design--Alignment.
The centerline of streets shall be:
A. Aligned with existing streets by continuation of the centerlines; or
B. Offset from the centerline by no more than five (5) feet, provided appropriate mitigation, in the judgment of the City Engineer, is provided to ensure that the offset intersection will not pose a safety hazard.
Finding: Not applicable. The existing street alignments meet the City requirements. This standard is met.

12.04.194 Traffic Sight Obstructions
All new streets shall comply with the Traffic Sight Obstructions in Chapter 10.32.
Finding: Not applicable. The existing street alignments meet the City requirements.

12.04.195 Spacing Standards.
12.04.195.A. All new streets shall be designed as local streets unless otherwise designated as arterials and collectors in Figure 8 in the Transportation System Plan. The maximum block spacing between streets is 530 feet and the minimum block spacing between streets is 150 feet as measured between the right-of-way centerlines. If the maximum block size is exceeded, pedestrian accessways must be provided every 330 feet. The spacing standards within this section do not apply to alleys.
Finding: Not applicable. The applicant has not proposed and is not required to provide new streets.

12.04.195.B. All new development and redevelopment shall meet the minimum driveway spacing standards identified in Table 12.04.195.B.
Table 12.04.195.B Minimum Driveway Spacing Standards

Table 12.04.195.B Minimum Driveway Spacing Standards		
Street Functional Classification	***Minimum Driveway Spacing Standards***	***Distance***
Major Arterial Streets	*Minimum distance from a street corner to a driveway for all uses and* *Minimum distance between driveways for uses other than single and two-family dwellings*	*175 ft.*
Minor Arterial Streets	*Minimum distance from a street corner to a driveway for all uses and* *Minimum distance between driveways for uses other than single and two-family dwellings*	*175 ft.*
Collector Streets	*Minimum distance from a street corner to a driveway for all uses and* *Minimum distance between driveways for uses other than single and two-family dwellings*	*100 ft.*

Table 12.04.195.B Minimum Driveway Spacing Standards		
Street Functional Classification	***Minimum Driveway Spacing Standards***	***Distance***
Local Streets	*Minimum distance from a street corner to a driveway for all uses and* *Minimum distance between driveways for uses other than single and two-family dwellings*	*25 ft.*
The distance from a street corner to a driveway is measured along the right-of-way from the edge of the intersection right-of-way to the nearest portion of the driveway and the distance between driveways is measured at the nearest portions of the driveway at the right-of-way.		

Finding: Complies as conditioned. . The applicant submitted a Traffic Analysis Letter (TAL), which indicated that ingress and egress would not change. The TAL was reviewed by the City's traffic consultant John Replinger, who found no safety impacts, but did recommend changes to driveway access to improve safety. The northernmost driveway is less than 175 feet from Beavercreek Road, which does not meet Table 12.04.025.B (Minimum Driveway Spacing Standards) of the Oregon City Municipal Code. However, this existing driveway allows for easier ingress and egress for emergency vehicles entering the site. The applicant shall redesign the northernmost driveway to reduce its width and provide only right-in right-out access. The final width shall be determined by the city engineering staff in consultation with emergency service providers. The applicant shall install signing in conformance with the Manual on Uniform Traffic Control Devices. The southernmost driveway shall be reconstructed to limit ingress and egress to only right turn maneuvers to and from Molalla Avenue; the driveway shall be signed in conformance with the Manual on Uniform Traffic Control Devices (Exhibit 4). **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

12.04.199 Pedestrian and Bicycle Accessways
Pedestrian/bicycle accessways are intended to provide direct, safe and convenient connections between residential areas, retail and office areas, institutional facilities, industrial parks, transit streets, neighborhood activity centers, rights-of-way, and pedestrian/bicycle accessways which minimize out-of-direction travel, and transit-orientated developments where public street connections for automobiles, bicycles and pedestrians are unavailable. Pedestrian/bicycle accessways are appropriate in areas where public street options are unavailable, impractical or inappropriate. Pedestrian and bicycle accessways are required through private property or as right-of-way connecting development to the right-of-way at intervals not exceeding three-hundred-and-thirty feet of frontage; or where the lack of street continuity creates inconvenient or out of direction travel patterns for local pedestrian or bicycle trips.
12.04.199.A. Entry points shall align with pedestrian crossing points along adjacent streets and with adjacent street intersections.
12.04.199.B. Accessways shall be free of horizontal obstructions and have a nine-foot, six-inch high vertical clearance to accommodate bicyclists. To safely accommodate both pedestrians and bicycles, accessway right-of-way widths shall be as follows:

1. *Accessways shall have a fifteen-foot-wide right-of-way with a seven-foot wide paved surface between a five foot planter strip and a three foot planter strip.*
2. *If an accessway also provides secondary fire access, the right-of-way width shall be at least twenty-three feet wide with a fifteen-foot paved surface a five foot planter strip and a three foot planter strip.*

12.04.199.C. Accessways shall be direct with at least one end point of the accessway always visible from any point along the accessway. On-street parking shall be prohibited within fifteen feet of the intersection of the accessway with public streets to preserve safe sight distance and promote safety.
2.04.199.D. To enhance pedestrian and bicycle safety, accessways shall be lighted with pedestrian-scale lighting. Accessway lighting shall be to a minimum level of one-half foot-candles, a one and one-half foot-candle average, and a maximum to minimum ratio of seven-to-one and shall be oriented not to shine upon adjacent properties. Street lighting shall be provided at both entrances.
12.04.199.E. Accessways shall comply with Americans with Disabilities Act (ADA).

12.04.199.F. The planter strips on either side of the accessway shall be landscaped along adjacent property by installation of the following:

1. *Within the three foot planter strip, an evergreen hedge screen of thirty to forty-two inches high or shrubs spaced no more than four feet apart on average;*
2. *Ground cover covering one hundred percent of the exposed ground. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees;*
3. *Within the five foot planter strip, two-inch minimum caliper trees with a maximum of thirty-five feet of separation between the trees to increase the tree canopy over the accessway;*
4. *In satisfying the requirements of this section, evergreen plant materials that grow over forty-two inches in height shall be avoided. All plant materials shall be selected from the Oregon City Native Plant List.*

12.04.199.G. Accessways shall be designed to prohibit unauthorized motorized traffic. Curbs and removable, lockable bollards are suggested mechanisms to achieve this.

12.04.199.H. Accessway surfaces shall be paved with all-weather materials as approved by the city. Pervious materials are encouraged. Accessway surfaces shall be designed to drain stormwater runoff to the side or sides of the accessway. Minimum cross slope shall be two percent.

12.04.199.I. In parks, greenways or other natural resource areas, accessways may be approved with a five-foot wide gravel path with wooden, brick or concrete edgings .

12.04.199.J. The Community Development Director may approve an alternative accessway design due to existing site constraints through the modification process set forth in Section 12.04.007.

12.04.199.K. Ownership, liability and maintenance of accessways.

To ensure that all pedestrian/bicycle accessways will be adequately maintained over time, the hearings body shall require one of the following:

1. *Dedicate the accessways to the public as public right-of-way prior to the final approval of the development; or*
2. *The developer incorporates the accessway into a recorded easement or tract that specifically requires the property owner and future property owners to provide for the ownership, liability and maintenance of the accessway.*

Finding: Not Applicable. The property is less than three acres and does not trigger the requirement to provide new streets or accessways. The frontage length is approximately 330 feet. Staff has determined that direct, safe and convenient connections between residential areas, retail and office areas, institutional facilities, industrial parks, transit streets, neighborhood activity centers, rights-of-way, and pedestrian/bicycle accessways which minimize out-of-direction travel, and transit-orientated developments where public street connections for automobiles, bicycles and pedestrians are available. Staff has determined that there is no lack of street continuity which creates inconvenient or out of direction travel patterns for local pedestrian or bicycle trips. The city TSP does not indicate a requirement for any accessways in the area.

12.04.205 Mobility Standards.

Development shall demonstrate compliance with intersection mobility standards. When evaluating the performance of the transportation system, the City of Oregon City requires all intersections, except for the facilities identified in subsection D below, to be maintained at or below the following mobility standards during the two-hour peak operating conditions. The first hour has the highest weekday traffic volumes and the second hour is the next highest hour before or after the first hour. Except as provided otherwise below, this may require the installation of mobility improvements as set forth in the Transportation System Plan or as otherwise identified by the City Transportation Engineer.

A. For intersections within the Regional Center, the following mobility standards apply:

1. *During the first hour, a maximum v/c ratio of 1.10 shall be maintained. For signalized intersections, this standard applies to the intersection as a whole. For unsignalized intersections, this standard applies to movements on the major street. There is no performance standard for the minor street approaches.*
2. *During the second hour, a maximum v/c ratio of 0.99 shall be maintained at signalized intersections. For signalized intersections, this standard applies to the intersection as a whole. For unsignalized intersections, this standard applies to movements on the major street. There is no performance standard for the minor street approaches.*

3. Intersections located on the Regional Center boundary shall be considered within the Regional Center.

B. For intersections outside of the Regional Center but designated on the Arterial and Throughway Network, as defined in the Regional Transportation Plan, the following mobility standards apply:

1. During the first hour, a maximum v/c ratio of 0.99 shall be maintained. For signalized intersections, this standard applies to the intersection as a whole. For unsignalized intersections, this standard applies to movements on the major street. There is no performance standard for the minor street approaches.

2. During the second hour, a maximum v/c ratio of 0.99 shall be maintained at signalized intersections. For signalized intersections, this standard applies to the intersection as a whole. For unsignalized intersections, this standard applies to movements on the major street. There is no performance standard for the minor street approaches.

C. For intersections outside the boundaries of the Regional Center and not designated on the Arterial and Throughway Network, as defined in the Regional Transportation Plan, the following mobility standards apply:

1. For signalized intersections:

a. During the first hour, LOS "D" or better will be required for the intersection as a whole and no approach operating at worse than LOS "E" and a v/c ratio not higher than 1.0 for the sum of the critical movements.

b. During the second hour, LOS "D" or better will be required for the intersection as a whole and no approach operating at worse than LOS "E" and a v/c ratio not higher than 1.0 for the sum of the critical movements.

2. For unsignalized intersections outside of the boundaries of the Regional Center:

a. For unsignalized intersections, during the peak hour, all movements serving more than 20 vehicles shall be maintained at LOS "E" or better. LOS "F" will be tolerated at movements serving no more than 20 vehicles during the peak hour.

D. Until the City adopts new performance measures that identify alternative mobility targets, the City shall exempt proposed development that is permitted, either conditionally, outright, or through detailed development master plan approval, from compliance with the above-referenced mobility standards for the following state-owned facilities:

I-205 / OR 99E Interchange
I-205 / OR 213 Interchange
OR 213 / Beavercreek Road
State intersections located within or on the Regional Center Boundaries

1. In the case of conceptual development approval for a master plan that impacts the above references intersections:

a. The form of mitigation will be determined at the time of the detailed development plan review for subsequent phases utilizing the Code in place at the time the detailed development plan is submitted; and

b. Only those trips approved by a detailed development plan review are vested.

2. Development which does not comply with the mobility standards for the intersections identified in 12.04.205.D shall provide for the improvements identified in the Transportation System Plan (TSP) in an effort to improve intersection mobility as necessary to offset the impact caused by development. Where required by other provisions of the Code, the applicant shall provide a traffic impact study that includes an assessment of the development's impact on the intersections identified in this exemption and shall construct the intersection improvements listed in the TSP or required by the Code.

Finding: Complies as proposed. The applicant submitted a Traffic Analysis Letter (TAL), which indicated that no additional trips would result from this proposal. The TAL was reviewed by the City's traffic consultant John Replinger, who reached the same conclusion.

12.04.210 Street design--Intersection Angles.

Except where topography requires a lesser angle, streets shall be laid out to intersect at angles as near as possible to right angles. In no case shall the acute angles be less than eighty degrees unless there is a special intersection design. An arterial or collector street intersecting with another street shall have at least one hundred feet of tangent adjacent to the intersection unless topography requires a lesser distance. Other streets, except alleys, shall have at least fifty feet of tangent adjacent to the intersection unless topography requires a lesser distance. All

street intersections shall be provided with a minimum curb return radius of twenty-five feet for local streets. Larger radii shall be required for higher street classifications as determined by the city engineer. Additional right-of-way shall be required to accommodate curb returns and sidewalks at intersections. Ordinarily, intersections should not have more than two streets at any one point.

Finding: Not applicable. No new streets are proposed.

12.04.215 Street design--Off-Site Street Improvements.

During consideration of the preliminary plan for a development, the decision maker shall determine whether existing streets impacted by, adjacent to, or abutting the development meet the city's applicable planned minimum design or dimensional requirements. Where such streets fail to meet these requirements, the decision-maker shall require the applicant to make proportional improvements sufficient to achieve conformance with minimum applicable design standards required to serve the proposed development.

Finding: Not Applicable. No off-site street improvements are required.

12.04.220 Street Design--Half Street.

Half streets, while generally not acceptable, may be approved where essential to the development, when in conformance with all other applicable requirements, and where it will not create a safety hazard. When approving half streets, the decision maker must first determine that it will be practical to require the dedication of the other half of the street when the adjoining property is divided or developed. Where the decision maker approves a half street, the applicant must construct an additional ten feet of pavement width so as to make the half street safe and usable until such time as the other half is constructed. Whenever a half street is adjacent to property capable of being divided or developed, the other half of the street shall be provided and improved when that adjacent property divides or develops. Access Control may be required to preserve the objectives of half streets.

When the remainder of an existing half-street improvement is made it shall include the following items: dedication of required right-of-way, construction of the remaining portion of the street including pavement, curb and gutter, landscape strip, sidewalk, street trees, lighting and other improvements as required for that particular street. It shall also include at a minimum the pavement replacement to the centerline of the street. Any damage to the existing street shall be repaired in accordance with the City's "Moratorium Pavement Cut Standard" or as approved by the City Engineer.

Finding: Complies as conditioned. See findings from section 12.04.180 of this report.

12.04.225 Street Design--Cul-de-sacs and Dead-End Streets.

The city discourages the use of cul-de-sacs and permanent dead-end streets except where construction of a through street is found by the decision maker to be impracticable due to topography or some significant physical constraint such as geologic hazards, wetland, natural or historic resource areas, dedicated open space, existing development patterns, arterial access restrictions or similar situation as determined by the Community Development Director. When permitted, access from new cul-de-sacs and permanent dead-end streets shall be limited to a maximum of 25 dwelling units and a maximum street length of two hundred feet, as measured from the right-of-way line of the nearest intersecting street to the back of the cul-de-sac curb face. In addition, cul-de-sacs and dead end roads shall include pedestrian/bicycle accessways as required in this Chapter. This section is not intended to preclude the use of curvilinear eyebrow widening of a street where needed.

Where approved, cul-de-sacs shall have sufficient radius to provide adequate turn-around for emergency vehicles in accordance with Fire District and City adopted street standards. Permanent dead-end streets other than cul-de-sacs shall provide public street right-of-way / easements sufficient to provide turn-around space with appropriate no-parking signs or markings for waste disposal, sweepers, and other long vehicles in the form of a hammerhead or other design to be approved by the decision maker. Driveways shall be encouraged off the turnaround to provide for additional on-street parking space.

Finding: Not applicable. No Cul-de-sacs or Dead-End Streets are proposed or required.

12.04.230 Street Design--Street Names.

Except for extensions of existing streets, no street name shall be used which will duplicate or be confused with the name of an existing street. Street names shall conform to the established standards in the City and shall be subject to the approval of the City.

Finding: Not applicable. No new street are proposed or required for this development.

12.04.235 Street Design--Grades and Curves.
Grades and center line radii shall conform to the standards in the City's street design standards and specifications.
Finding: Not applicable. No new streets are proposed or required for this development.

12.04.240 Street Design--Development Abutting Arterial or Collector Street.
Where development abuts or contains an existing or proposed arterial or collector street, the decision maker may require: access control; screen planting or wall contained in an easement or otherwise protected by a restrictive covenant in a form acceptable to the decision maker along the rear or side property line; or such other treatment it deems necessary to adequately protect residential properties or afford separation of through and local traffic. Reverse frontage lots with suitable depth may also be considered an option for residential property that has arterial frontage. Where access for development abuts and connects for vehicular access to another jurisdiction's facility then authorization by that jurisdiction may be required.
Finding: Complies as proposed. The development is adjacent to arterial streets and proposes to utilize existing driveways. The decision maker has not required: access control; screen planting or wall contained in an easement or otherwise protected by a restrictive covenant in a form acceptable to the decision maker along the rear or side property line; or such other treatment it deems necessary to adequately protect residential properties or afford separation of through and local traffic.

12.04.245 Street Design--Pedestrian and Bicycle Safety.
Where deemed necessary to ensure public safety, reduce traffic hazards and promote the welfare of pedestrians, bicyclists and residents of the subject area, the decision maker may require that local streets be so designed as to discourage their use by nonlocal automobile traffic.
All crosswalks shall include a large vegetative or sidewalk area which extends into the street pavement as far as practicable to provide safer pedestrian crossing opportunities. These curb extensions can increase the visibility of pedestrians and provide a shorter crosswalk distance as well as encourage motorists to drive slower. The decision maker may approve an alternative design that achieves the same standard for constrained sites or where deemed unnecessary by the City Engineer.
Finding: Not applicable. Curb extensions have not been deemed necessary for this development by the decision maker.

12.04.255 Street design--Alleys.
Public alleys shall be provided in the following districts R-5, R-3.5, R-2, MUC-1, MUC-2 and NC zones unless other permanent provisions for private access to off-street parking and loading facilities are approved by the decision maker. The corners of alley intersections shall have a radius of not less than ten feet.
Finding: Not Applicable. No alleys are proposed.

12.04.260 Street Design--Transit.
Streets shall be designed and laid out in a manner that promotes pedestrian and bicycle circulation. The applicant shall coordinate with transit agencies where the application impacts transit streets as identified in 17.04.1310. Pedestrian/bicycle access ways shall be provided as necessary in Chapter 12.04 to minimize the travel distance to transit streets and stops and neighborhood activity centers. The decision maker may require provisions, including easements, for transit facilities along transit streets where a need for bus stops, bus pullouts or other transit facilities within or adjacent to the development has been identified.
Finding: Not Applicable. There are no nearby transit facilities.

12.04.265 Street design--Planter Strips.
All development shall include vegetative planter strips that are five feet in width or larger and located adjacent to the curb. This requirement may be waived or modified if the decision maker finds it is not practicable. The decision maker may permit constrained sites to place street trees on the abutting private property within 10 feet of the public right-of-way if a covenant is recorded on the title of the property identifying the tree as a city street tree which is maintained by the property owner. Development proposed along a collector, minor arterial, or major

arterial street may use tree wells with root barriers located near the curb within a wider sidewalk in lieu of a planter strip, in which case each tree shall have a protected area to ensure proper root growth and reduce potential damage to sidewalks, curbs and gutters.
To promote and maintain the community tree canopy adjacent to public streets, trees shall be selected and planted in planter strips in accordance with Chapter 12.08, Street Trees. Individual abutting lot owners shall be legally responsible for maintaining healthy and attractive trees and vegetation in the planter strip. If a homeowners' association is created as part of the development, the association may assume the maintenance obligation through a legally binding mechanism, e.g., deed restrictions, maintenance agreement, etc., which shall be reviewed and approved by the city attorney. Failure to properly maintain trees and vegetation in a planter strip shall be a violation of this code and enforceable as a civil infraction.
Finding: See findings from section 12.04.180 of this document.

12.04.270 Standard Construction Specifications.
The workmanship and materials for any work performed under permits issued per this chapter shall be in accordance with the edition of the "Standard Specifications for Public Works Construction," as prepared by the Oregon Chapter of American Public Works Association (APWA) and as modified and adopted by the city, in effect at the time of application. The exception to this requirement is where this chapter and the Public Works Street Design Drawings provide other design details, in which case the requirements of this chapter and the Public Works Street Design Drawings shall be complied with. In the case of work within ODOT or Clackamas County rights-of-way, work shall be in conformance with their respective construction standards.
Finding: Complies with Condition. The applicant is responsible for the project's compliance with the edition of the "Standard Specifications for Public Works Construction," as prepared by the Oregon Chapter of American Public Works Association (APWA) and as modified and adopted by the city, in effect at the time of application. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

12.04.280 Violation--Penalty.
Any act or omission in violation of this chapter shall be deemed a nuisance. Violation of any provision of this chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.
Finding: Not Applicable. No violations have been identified.

CHAPTER 12.08 - PUBLIC AND STREET TREES[2]

12.08.015 - Street tree planting and maintenance requirements.
All new construction or major redevelopment shall provide street trees adjacent to all street frontages. Species of trees shall be selected based upon vision clearance requirements, but shall in all cases be selected from the Oregon City Street Tree List or be approved by a certified arborist. If a setback sidewalk has already been constructed or the Development Services determines that the forthcoming street design shall include a setback sidewalk, then all street trees shall be installed with a planting strip. If existing street design includes a curb-tight sidewalk, then all street trees shall be placed within the front yard setback, exclusive of any utility easement.
A. One street tree shall be planted for every thirty-five feet of property frontage. The tree spacing shall be evenly distributed throughout the total development frontage. The community development director may approve an alternative street tree plan if site or other constraints prevent meeting the placement of one street tree per thirty-five feet of property frontage.
B. The following clearance distances shall be maintained when planting trees:
1. Fifteen feet from streetlights;
2. Five feet from fire hydrants;
3. Twenty feet from intersections;
4. A minimum of five feet (at mature height) below power lines.
C. All trees shall be a minimum of two inches in caliper at six inches above the root crown and installed to city specifications.
12.08.020 - Street tree species selection.

The community development director may specify the species of street trees required to be planted if there is an established planting scheme adjacent to a lot frontage, if there are obstructions in the planting strip, or if overhead power lines are present.

Finding: Complies as proposed. The frontage along Beavercreek Road has been reconstructed by the city without street trees and existing conditions are not conducive for the placement of new street trees. Therefore, no street trees are required along the frontage of Beavercreek Road. The frontage along Molalla Avenue is approximately 330 feet long. Therefore, ten street trees would be required along Molalla Avenue. The conditions of approval in this staff report already require sidewalk and street lighting upgrades, as well as right of way dedication. Staff finds that requiring street trees in addition to these other public improvements would not be proportional to the impact of the development, which does not include new square footage to the site or major intensification of the use. Thus, no new street trees are required.

12.08.035 - Public tree removal.

Existing street trees shall be retained and protected during construction unless removal is specified as part of a land use approval or in conjunction with a public facilities construction project, as approved by the community development director. A diseased or hazardous street tree, as determined by a registered arborist and verified by the City, may be removed if replaced. A non-diseased, non-hazardous street tree that is removed shall be replaced in accordance with the Table 12.08.035.

All new street trees will have a minimum two-inch caliper trunk measured six inches above the root crown. The community development director may approve off-site installation of replacement trees where necessary due to planting constraints. The community development director may additionally allow a fee in-lieu of planting the tree(s) to be placed into a city fund dedicated to planting trees in Oregon City in accordance with Oregon City Municipal Code 12.08.

Table 12.08.035

Replacement Schedule for Trees Determined to be Dead, Diseased or Hazardous by a Certified Arborist		*Replacement Schedule for Trees Not Determined to be Dead, Diseased or Hazardous by a Certified Arborist*	
Diameter of tree to be Removed (Inches of diameter at 4-ft height)	*Number of Replacement Trees to be Planted*	*Diameter of tree to be Removed (Inches of diameter at 4-ft height)*	*Number of Replacement Trees to be Planted*
Any Diameter	*1 Tree*	*Less than 6"*	*1 Tree*
		6" to 12"	*2 Trees*
		13" to 18"	*3 Trees*
		19" to 24"	*4 Trees*
		25" to 30"	*5 Trees*
		31" and over	*8 Trees*

Finding: Complies with Condition. There are several existing 6” to 9” trees shown on the plans in the Molalla Avenue right of way. It appears that these trees will be removed. If any trees in the Molalla Avenue right of way are removed, the applicant shall replace the tree or pay fee-in-lieu in accordance with Chapter 12.08.035. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

CHAPTER 13.12 - STORMWATER MANAGEMENT

13.12.050 - Applicability and exemptions.

This chapter establishes performance standards for stormwater conveyance, quantity and quality. Additional performance standards for erosion prevention and sediment control are established in OCMC 17.47.

A. Stormwater Conveyance. The stormwater conveyance requirements of this chapter shall apply to all stormwater systems constructed with any development activity, except as follows:

1. The conveyance facilities are located entirely on one privately owned parcel;

2. The conveyance facilities are privately maintained; and

3. The conveyance facilities receive no stormwater runoff from outside the parcel's property limits.

Those facilities exempted from the stormwater conveyance requirements by the above subsection will remain subject to the requirements of the Oregon Uniform Plumbing Co

de. Those exempted facilities shall be reviewed by the building official.

Finding: Applicable. The stormwater from the site will leave private property and will discharge into the ROW.

B. Water Quality and Flow Control. The water quality and flow control requirements of this chapter shall apply to the following proposed uses or developments, unless exempted under subsection C:

1. Activities located wholly or partially within water quality resource areas pursuant to Chapter 17.49 that will result in the creation of more than five hundred square feet of impervious surface within the WQRA or will disturb more than one thousand square feet of existing impervious surface within the WQRA as part of a commercial or industrial redevelopment project. These square footage measurements will be considered cumulative for any given five-year period; or

2. Activities that create or replace more than five thousand square feet of impervious surface per parcel or lot, cumulated over any given five-year period.

Finding: Applicable. The applicant has provided a site plan which shows that the development proposes to create or replace more than 5000 square feet of impervious area.

C. Exemptions. The following exemptions to subsection B of this section apply:

1. An exemption to the flow control requirements of this chapter will be granted when the development site discharges to the Willamette River, Clackamas River or Abernethy Creek; and either lies within the one hundred-year floodplain or is up to ten feet above the design flood elevation as defined in Chapter 17.42, provided that the following conditions are met:

a. The project site is drained by a conveyance system that is comprised entirely of manmade elements (e.g. pipes, ditches, culverts outfalls, outfall protection, etc.) and extends to the ordinary high water line of the exempt receiving water; and

b. The conveyance system between the project site and the exempt receiving water has sufficient hydraulic capacity and erosion stabilization measures to convey discharges from the proposed conditions of the project site and the existing conditions from non-project areas from which runoff is collected.

2. Projects in the following categories are generally exempt from the water quality and flow control requirements:

a. Stream enhancement or restoration projects approved by the city.

b. Farming practices as defined by ORS 30.960 and farm use as defined in ORS 214.000; except that buildings associated with farm practices and farm use are subject to the requirements of this chapter.

c. Actions by a public utility or any other governmental agency to remove or alleviate an emergency condition.

d. Road and parking area preservation/maintenance projects such as pothole and square cut patching, surface sealing, replacing or overlaying of existing asphalt or concrete pavement, provided the preservation/maintenance activity does not expand the existing area of impervious coverage above the thresholds in subsection B of this section.

e. Pedestrian and bicycle improvements (sidewalks, trails, pathways, and bicycle paths/lands) where no other impervious surfaces are created or replaced, built to direct stormwater runoff to adjacent vegetated areas.

f. Underground utility projects that replace the ground surface with in-kind material or materials with similar runoff characteristics.

g. Maintenance or repair of existing utilities.

Finding: Not Applicable. The applicant has not met exemption requirements set forth in section 13.12.050.C of the Oregon City Municipal Code.

D. Uses Requiring Additional Management Practices. In addition to any other applicable requirements of this chapter, the following uses are subject to additional management practices, as defined in the Public Works Stormwater and Grading Design Standards:

1. Bulk petroleum storage facilities;

2. Above ground storage of liquid materials;

3. Solid waste storage areas, containers, and trash compactors for commercial, industrial, or multi-family uses;

4. Exterior storage of bulk construction materials;

5. Material transfer areas and loading docks;

6. Equipment and/or vehicle washing facilities;

7. Development on land with suspected or known contamination;

8. Covered vehicle parking for commercial or industrial uses;

9. Industrial or commercial uses locating in high traffic areas, defined as average daily count trip of two thousand five hundred or more trips per day; and

10. Land uses subject to DEQ 1200-Z Industrial Stormwater Permit Requirements.

Finding: Not Applicable. The proposal does not contain elements requiring additional stormwater management practices.

13.12.080 - Submittal requirements.

A. Applications subject to stormwater conveyance, water quality, and/or flow control requirements of this chapter shall prepare engineered drainage plans, drainage reports, and design flow calculation reports in compliance with the submittal requirements of the Public Works Stormwater and Grading Design Standards.

B. Each project site, which may be composed of one or more contiguous parcels of land, shall have a separate valid city approved plan and report before proceeding with construction.

Finding: Complies as Conditioned. Section 9.4 of the Public Works Stormwater and Grading Design Standards identifies contents required within a drainage report. The drainage report submitted by the applicant did not contained all items identified in Section 9.4 of the Public Works Stormwater and Grading Design Standards. The applicant shall provide an updated drainage report signed by a licensed engineer which addresses all items from the Section 9.4 of the Public Works Stormwater and Grading Design Standards. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

13.12.090 - Approval criteria for engineered drainage plans and drainage report.

An engineered drainage plan and/or drainage report shall be approved only upon making the following findings:

A. The plan and report demonstrate how the proposed development and stormwater facilities will accomplish the purpose statements of this chapter.

B. The plan and report meet the requirements of the Public Works Stormwater and Grading Design Standards adopted by resolution under Section 13.12.020.

C. The storm drainage design within the proposed development includes provisions to adequately control runoff from all public and private streets and roof, footing, and area drains and ensures future extension of the current drainage system.

D. Streambank erosion protection is provided where stormwater, directly or indirectly, discharges to open channels or streams.

E. Specific operation and maintenance measures are proposed that ensure that the proposed stormwater quantity control facilities will be properly operated and maintained.

Finding: Complies as Conditioned. The provided report appears to meet stormwater treatment and detention requirements of the Public Works Stormwater and Grading Design Standards. The drainage plan may change depending on the design requirements set forth by the conditions of approval contained in this staff report. A revised drainage plan will not increase the overall impervious area of the development and will meet requirements of the Public Works Stormwater and Grading Design Standards. The applicant shall execute a "Maintenance Covenant And Access Easement For Privately Owned Stormwater Management Facilities" and pay associated recording fees. The covenant shall include a site plan identifying all privately-owned stormwater management facilities and an operation and maintenance plan for each type of stormwater facility in accordance with the Public Works Stormwater and Grading Design Standards. The Maintenance Covenant and Access Easement shall be reviewed and accepted by the City prior to recording.

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

13.12.100 - Alternative materials, alternative design and methods of construction.

The provisions of this chapter are not intended to prevent the use of any material, alternate design or method of construction not specifically prescribed by this chapter or the Public Works Stormwater and Grading Design Standards, provided any alternate has been approved and its use authorized by the city engineer. The city engineer may approve any such alternate, provided that the city engineer finds that the proposed design is satisfactory and complies with the intent of this chapter and that the material, method, or work offered is, for the purpose intended, at least the equivalent of that prescribed by this chapter in effectiveness, suitability, strength, durability and safety. The city engineer shall require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding its use. The details of any action granting approval of an alternate shall be recorded and entered in the city files.

Finding: Not Applicable. The applicant has not proposed alternative design methods requiring special approval by the City Engineer. However, should the applicant propose such methods with the public facilities construction plan submittal, the proposal will be reviewed and approved by the City Engineer as required.

13.12.120 - Standard construction specifications.

The workmanship and materials shall be in accordance with the edition of the "Standard Specifications for Public Works Construction," as prepared by the Oregon Chapter of American Public Works Association (APWA) and as modified and adopted by the city, in effect at the time of application. The exception to this requirement is where this chapter and the Public Works Stormwater and Grading Design Standards provide other design details, in which case the requirements of this chapter and the Public Works Stormwater and Grading Design Standards shall be complied with.

Finding: Complies as proposed. The applicant has noted the requirement to follow city standards which are developed in compliance with the Oregon Chapter of American Public Works Association (APWA) and as modified and adopted by the city, in effect at the time of application.

13.12.130 - Administrative provisions.

An applicant shall submit the following additional items to the city and complete the following tasks prior to proceeding with construction of proposed development plans. These items include the following:

A. Engineer's cost estimate (also may be known as engineer's opinion of probable construction cost).
B. Plan check and inspection fees (as set by city resolution).
C. Certificate of liability insurance for city funded public projects contracted by the city (not less than one million dollars single incident and two million dollars aggregate).
D. Preconstruction meeting (if required by some other provision of this code).
E. Performance Assurance(s). Applicant must submit a letter of commitment, cash deposit or other form of assurance in form and substance satisfactory to the city engineer and city attorney, to cover the engineer's cost

estimate for the construction of the stormwater facility. This is required to assure that the following are accomplished to the satisfaction of the city engineer:
1. Work shown on the development plans is accomplished;
2. Appropriate as-built/record drawings and electronic files are delivered to the city. (As-built drawings, or record drawings, will be on four-mil Mylar.) Electronic files shall be submitted per city engineer format requirements;
3. Compliance with the criteria in this chapter and the Public Works Stormwater and Grading Design Standards, as well as with other city standards, ordinances, resolutions or rules;
4. Permanent stabilization and/or restoration of the impact from the development;
5. Fulfillment of all conditions of approval;
6. Payment of all outstanding fees;
7. Submittal of any required maintenance guarantee(s).
F. Developer/engineer agreement for public works improvements.
G. Land division compliance agreement (if applicable).
H. Project engineer's certificate of completion.
I. Operation and maintenance easement (if applicable).
J. Details on individual items required by this subsection can be obtained by contacting the city's engineering division. Many items, such as the engineer's cost estimate and plan check and inspection fee, maybe be submitted in conjunction with documentation for other infrastructure improvements that are done with the development (such as street, sanitary sewer, and water).

Finding: Complies as conditioned. The applicant shall provide performance assurance per section 17.50.140 – "Performance guarantees" of the Oregon City Municipal Code. The applicant may fulfill all other requirements of this section by complying with all current Oregon City Public Works design standards, specifications, codes, and policies.

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

CHAPTER 15.48 - GRADING, FILLING AND EXCAVATING

15.48.030 Applicability—Grading permit required.
A. A city-issued grading permit shall be required before the commencement of any of the following filling or grading activities:
1. Grading activities in excess of ten cubic yards of earth;
2. Grading activities which may result in the diversion of existing drainage courses, both natural and man-made, from their natural point of entry or exit from the grading site;
3. Grading and paving activities resulting in the creation of impervious surfaces greater than two thousand square feet or more in area;
4. Any excavation beyond the limits of a basement or footing excavation, having an unsupported soil height greater than five feet after the completion of such a structure; or
5. Grading activities involving the clearing or disturbance of one-half acres (twenty-one thousand seven hundred eighty square feet) or more of land.

Finding: Applicable. The development proposes grading and paving activities resulting in the creation of impervious surfaces greater than two thousand square feet.

15.48.090 Submittal requirements.
An engineered grading plan or an abbreviated grading plan shall be prepared in compliance with the submittal requirements of the Public Works Stormwater and Grading Design Standards whenever a city approved grading permit is required. In addition, a geotechnical engineering report and/or residential lot grading plan may be required pursuant to the criteria listed below.
A. Abbreviated Grading Plan. The city shall allow the applicant to submit an abbreviated grading plan in compliance with the submittal requirements of the Public Works Stormwater and Grading Design Standards if the following criteria are met:

1. No portion of the proposed site is within the flood management area overlay district pursuant to Chapter 17.42, the unstable soils and hillside constraints overlay district pursuant to Chapter 17.44, or a water quality resource area pursuant to Chapter 17.49; and
2. The proposed filling or grading activity does not involve more than fifty cubic yards of earth.
B. Engineered Grading Plan. The city shall require an engineered grading plan in compliance with the submittal requirements of the Public Works Stormwater and Grading Design Standards to be prepared by a professional engineer if the proposed activities do not qualify for abbreviated grading plan.
C. Geotechnical Engineering Report. The city shall require a geotechnical engineering report in compliance with the minimum report requirements of the Public Works Stormwater and Grading Design Standards to be prepared by a professional engineer who specializes in geotechnical work when any of the following site conditions may exist in the development area:
1. When any publicly maintained facility (structure, street, pond, utility, park, etc.) will be supported by any engineered fill;
2. When an embankment for a stormwater pond is created by the placement of fill;
3. When, by excavation, the soils remaining in place are greater than three feet high and less than twenty feet wide.
D .Residential Lot Grading Plan. The city shall require a residential lot grading plan in compliance with the minimum report requirements of the Public Works Stormwater and Grading Design Standards to be prepared by a professional engineer for all land divisions creating new residential building lots or where a public improvement project is required to provide access to an existing residential lot.
Finding: Complies as proposed. The applicant provided a preliminary engineered grading plan demonstrating general compliance with the City's Public Works requirements for grading standards.

CHAPTER 17.47 - EROSION AND SEDIMENT CONTROL

17.47.030 - *Applicability.*
A. This chapter, which may also be referred to as "erosion control" in this Code, applies to development that may cause visible or measurable erosion on any property within the city limits of Oregon City.
B. This chapter does not apply to work necessary to protect, repair, maintain or replace existing structures, utility facilities, roadways, driveways, accessory uses and exterior improvements in response to emergencies, provided that after the emergency has passed, adverse impacts are mitigated in accordance with applicable standards.
Finding: Applicable. The applicant has proposed to construction activities which will disturb 1,000 square feet or more of the land.

17.47.060 - *Permit required.*
The applicant must obtain an erosion and sediment control permit prior to, or contemporaneous with, the approval of an application for any building, land use or other city-issued permit that may cause visible or measurable erosion.
Finding: Complies with Condition. The development proposes disturbance which is less than one acre in size. The applicant seeks approval of an application for land use which requires construction that may cause visible or measurable erosion. The applicant shall obtain an Erosion control permit prior to commencement of any earth disturbing activities. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

17.47.070 - *Erosion and sediment control plans.*
A. An application for an erosion and sediment control permit shall include an erosion and sediment control plan, which contains methods and interim measures to be used during and following construction to prevent or control erosion prepared in compliance with City of Oregon City public works standards for erosion and sediment control. These standards are incorporated herein and made a part of this title and are on file in the office of the city recorder.
B. Approval Standards. An erosion and sediment control plan shall be approved only upon making the following findings:

1.The erosion and sediment control plan meets the requirements of the City of Oregon City public works standards for erosion and sediment control incorporated by reference as part of this chapter;
2.The erosion and sediment control plan indicates that erosion and sediment control measures will be managed and maintained during and following development. The erosion and sediment control plan indicates that erosion and sediment control measures will remain in place until disturbed soil areas are permanently stabilized by landscaping, grass, approved mulch or other permanent soil stabilizing measures.

C. The erosion and sediment control plan shall be reviewed in conjunction with the requested development approval. If the development does not require additional review, the manager may approve or deny the permit with notice of the decision to the applicant.
D. The city may inspect the development site to determine compliance with the erosion and sediment control plan and permit.
E. Erosion that occurs on a development site that does not have an erosion and sediment control permit, or that results from a failure to comply with the terms of such a permit, constitutes a violation of this chapter.
F. If the manager finds that the facilities and techniques approved in an erosion and sediment control plan and permit are not sufficient to prevent erosion, the manager shall notify the owner or his/her designated representative. Upon receiving notice, the owner or his/her designated representative shall immediately install interim erosion and sediment control measures as specified in the City of Oregon City public works standards for erosion and sediment control. Within three days from the date of notice, the owner or his/her designated representative shall submit a revised erosion and sediment control plan to the city. Upon approval of the revised plan and issuance of an amended permit, the owner or his/her designated representative shall immediately implement the revised plan.
G. Approval of an erosion and sediment control plan does not constitute an approval of permanent road or drainage design (e.g., size and location of roads, pipes, restrictors, channels, retention facilities, utilities, etc.).
Finding: Complies with Condition. The applicant shall provide an Erosion Prevention and Sedimentation Control Plan prior to issuance of an erosion control permit. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

CHAPTER 17.41 - TREE PROTECTION STANDARDS

17.41.020 - Tree protection—Applicability.
1. Applications for development subject to Chapters 16.08 or 16.12 (Subdivision or Minor Partition) or Chapter 17.62 (Site Plan and Design Review) shall demonstrate compliance with these standards as part of the review proceedings for those developments.
2. For public capital improvement projects, the city engineer shall demonstrate compliance with these standards pursuant to a Type II process.
3. Tree canopy removal greater than twenty-five percent on sites greater than twenty-five percent slope, unless exempted under Section 17.41.040, shall be subject to these standards.
4. A heritage tree or grove which has been designated pursuant to the procedures ofChapter 12.08.050 shall be subject to the standards of this section.
Finding: Applicable. The proposed development includes a site plan and design review application, therefore this section applies. The applicant's plans show 9 trees on private property proposed to be removed.

17.410 - Same—Compliance options. Applicants for review shall comply with these requirements through one or a combination of the following procedures: A. Option 1—Mitigation. Retention and removal of trees, with subsequent mitigation by replanting pursuant to Sections 17.41.060 or 17.41.070. All replanted and saved trees shall be protected by a permanent restrictive covenant or easement approved in form by the city. B. Option 2—Dedicated Tract. Protection of trees or groves by placement in a tract within a new subdivision or partition plat pursuant to Sections 17.41.080—17.41.100; or C. Option 3—Restrictive Covenant. Protection of trees or groves by recordation of a permanent restrictive covenant pursuant to Sections 17.41.110—17.41.120; or D. Option 4—Cash-in-lieu of planting pursuant to Section 17.41.130. A regulated tree that has been designated for protection pursuant to this section must be retained or permanently protected unless it has been determined by a certified arborist to be diseased or hazardous, pursuant to the following applicable provisions. The community development director,

pursuant to a Type II procedure, may allow a property owner to cut a specific number of trees within a regulated grove if preserving those trees would: 1. Preclude achieving eighty percent of minimum density with reduction of lot size; or 2. Preclude meeting minimum connectivity requirements for subdivisions.

Finding: Complies with condition. The applicant has proposed to remove 9 trees onsite. It is possible that other trees onsite will be removed as well. The applicant has proposed to utilize Option 1, mitigation, however, the required number of mitigation trees is not sufficient on the proposed plans. Prior to issuance of permits, the applicant shall identify all trees that will be removed and provide a mitigation plan that meets the requirements of Chapter 17.41.

17.41.060 - Tree removal and replanting—Mitigation (Option 1). A. Applicants for development who select this option shall ensure that all healthy trees shall be preserved outside the construction area as defined in Chapter 17.04to the extent practicable. Compliance with these standards shall be demonstrated in a tree mitigation plan report prepared by a certified arborist, horticulturalist or forester or other environmental professional with experience and academic credentials in forestry or arborculture. At the applicant's expense, the city may require the report to be reviewed by a consulting arborist. The number of replacement trees required on a development site shall be calculated separately from, and in addition to, any public or street trees in the public right-of-way required under section 12.08—Community Forest and Street Trees. B. The applicant shall determine the number of trees to be mitigated on the site by counting all of the trees six inch DBH (minimum four and one-half feet from the ground) or larger on the entire site and either: 1. Trees that are removed outside of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2; or 2. Diseased or hazardous trees, when the condition is verified by a certified arborist to be consistent with the definition in Section 17.04.1360, may be removed from the tree replacement calculation. Regulated healthy trees that are removed outside of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Regulated healthy trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2.

Steps for calculating the number of replacement trees: 1. Count all trees measuring six inches DBH (minimum four and one-half feet from the ground) or larger on the entire development site. 2. Designate (in certified arborists report) the condition and size (DBH) of all trees pursuant to accepted industry standards. 3. Document any trees that are currently diseased or hazardous. 4. Subtract the number of diseased or hazardous trees in step 3. from the total number of trees on the development site in step 1. The remaining number is the number of healthy trees on the site. Use this number to determine the number of replacement trees in steps 5. through 8. 5. Define the construction area (as defined in Chapter 17.04). 6. Determine the number and diameter of trees to be removed within the construction area. Based on the size of each tree, use Column 2 to determine the number of replacement trees required. 7. Determine the number and diameter of trees to be removed outside of the construction area. Based on the size of each tree, use Column 1 to determine the number of replacement trees required. 8. Determine the total number of replacement trees from steps 6. and 7.

Finding: Complies with Condition. The applicant's plans did not consider that some of the trees proposed to be removed are outside of the construction area. Staff has made a determination, based on the definition of construction area in 17.04.230, of which trees are within the construction area, and which trees are outside of the construction area. Tree removal is proposed according to the following table:

Tree to be removed	Size (inches DBH)	Mitigation trees required
1	22	9
2	16	6
3	20	9
4	14	6
5	16	6
6	6	3
7	14	6

	8	18	6
	9	14	6
TOTAL			**57**

The proposed mitigation does not provide the required mitigation based on the proposed tree removal; 57 trees are required if the proposed removal plan remains. The applicant shall provide a revised tree removal and mitigation plan that meets this standard. The applicant may utilize fee in lieu of planting if desired. This standard requires the tree mitigation plan report be prepared by a certified arborist, horticulturalist, forester or other environmental professionals with experience and academic credentials in forestry or arboriculture. Prior to issuance of a permit associated with the proposed development, the applicant shall submit a revised tree mitigation plan prepared by a certified arborist, horticulturalist, forester or other environmental professional. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

17.41.130 - Regulated tree protection procedures during construction.
A. No permit for any grading or construction of public or private improvements may be released prior to verification by the community development director that regulated trees designated for protection or conservation have been protected according to the following standards. No trees designated for removal shall be removed without prior written approval from the community development director. B. Tree protection shall be as recommended by a qualified arborist or, as a minimum, to include the following protective measures: 1. Except as otherwise determined by the community development director, all required tree protection measures set forth in this section shall be instituted prior to any development activities, including, but not limited to clearing, grading, excavation or demolition work, and such measures shall be removed only after completion of all construction activity, including necessary landscaping and irrigation installation, and any required plat, tract, conservation easement or restrictive covenant has been recorded. 2. Approved construction fencing, a minimum of four feet tall with steel posts placed no farther than ten feet apart, shall be installed at the edge of the tree protection zone or dripline, whichever is greater. An alternative may be used with the approval of the community development director. 3. Approved signs shall be attached to the fencing stating that inside the fencing is a tree protection zone, not to be disturbed unless prior approval has been obtained from the community development director. 4. No construction activity shall occur within the tree protection zone, including, but not limited to; dumping or storage of materials such as building supplies, soil, waste items; nor passage or parking of vehicles or equipment. 5. The tree protection zone shall remain free of chemically injurious materials and liquids such as paints, thinners, cleaning solutions, petroleum products, and concrete or dry wall excess, construction debris, or run-off. 6. No excavation, trenching, grading, root pruning or other activity shall occur within the tree protection zone unless directed by an arborist present on site and approved by the community development director. 7. No machinery repair or cleaning shall be performed within ten feet of the dripline of any trees identified for protection. 8. Digging a trench for placement of public or private utilities or other structure within the critical root zone of a tree to be protected is prohibited. Boring under or through the tree protection zone may be permitted if approved by the community development director and pursuant to the approved written recommendations and on-site guidance and supervision of a certified arborist. 9. The city may require that a certified arborist be present during any construction or grading activities that may affect the dripline of trees to be protected. 10. The community development director may impose conditions to avoid disturbance to tree roots from grading activities and to protect trees and other significant vegetation identified for retention from harm. Such conditions may include, if necessary, the advisory expertise of a qualified consulting arborist or horticulturist both during and after site preparation, and a special maintenance/management program to provide protection to the resource as recommended by the arborist or horticulturist. C. Changes in soil hydrology due to soil compaction and site drainage within tree protection areas shall be avoided. Drainage and grading plans shall include provision to ensure that drainage of the site does not conflict with the standards of this section. Excessive site run-off shall be directed to appropriate storm drainage facilities and away 98 from trees designated for conservation or protection.

Finding: Complies with condition. The applicant has not proposed tree protection. The applicant shall ensure that tree protection during construction meets the requirements of 17.41.130. If the applicant wishes to preserve the two maple trees along the Molalla Avenue frontage, the applicant shall provide

an arborist assessment of the impacts of construction on the trees. If an arborist finds that the trees will not survive construction impacts, the applicant shall mitigate for the trees. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

CHAPTER 17.50 - ADMINISTRATION AND PROCEDURES

17.50.030 Summary of the City's Decision-Making Processes.

Finding: Complies as Proposed. The proposed application is being reviewed pursuant to the Type III process. Notice was posted onsite, online, in a newspaper of general circulation, and mailed to property owners within 300 feet of the proposed development site.

17.50.050 Preapplication Conference

A. Preapplication Conference. Prior to submitting an application for any form of permit, the applicant shall schedule and attend a preapplication conference with City staff to discuss the proposal. To schedule a preapplication conference, the applicant shall contact the Planning Division, submit the required materials, and pay the appropriate conference fee. At a minimum, an applicant should submit a short narrative describing the proposal and a proposed site plan, drawn to a scale acceptable to the City, which identifies the proposed land uses, traffic circulation, and public rights-of-way and all other required plans. The purpose of the preapplication conference is to provide an opportunity for staff to provide the applicant with information on the likely impacts, limitations, requirements, approval standards, fees and other information that may affect the proposal. The Planning Division shall provide the applicant(s) with the identity and contact persons for all affected neighborhood associations as well as a written summary of the preapplication conference. Notwithstanding any representations by City staff at a preapplication conference, staff is not authorized to waive any requirements of this code, and any omission or failure by staff to recite to an applicant all relevant applicable land use requirements shall not constitute a waiver by the City of any standard or requirement.

B.A preapplication conference shall be valid for a period of six months from the date it is held. If no application is filed within six months of the conference or meeting, the applicant must schedule and attend another conference before the city will accept a permit application. The community development director may waive the preapplication requirement if, in the Director's opinion, the development does not warrant this step. In no case shall a preapplication conference be valid for more than one year.

Finding: Complies as Proposed. The applicant held a pre-application conference (file PA 18-16) on April 3, 2018. The land use application was submitted on October 3, 2018 within 6 months of the pre-application conference.

17.50.055 Neighborhood Association Meeting

A. Neighborhood Association Meeting. The purpose of the meeting with the recognized neighborhood association is to inform the affected neighborhood association about the proposed development and to receive the preliminary responses and suggestions from the neighborhood association and the member residents.
   1. Applicants applying for annexations, zone change, comprehensive plan amendments, conditional use, planning commission variances, subdivision, or site plan and design review (excluding minor site plan and design review), general development master plans or detailed development plans applications shall schedule and attend a meeting with the city-recognized neighborhood association in whose territory the application is proposed. Although not required for other projects than those identified above, a meeting with the neighborhood association is highly recommended.
   2. The applicant shall send, by certified mail, return receipt requested letter to the chairperson of the neighborhood association and the citizen involvement committee describing the proposed project. Other communication methods may be used if approved by the neighborhood association.
   3. A meeting shall be scheduled within thirty days of the notice. A meeting may be scheduled later than thirty days if by mutual agreement of the applicant and the neighborhood association. If the neighborhood association does not want to, or cannot meet within thirty days, the applicant shall hold

their own meeting after six p.m. or on the weekend, with notice to the neighborhood association, citizen involvement committee, and all property owners within three hundred feet. If the applicant holds their own meeting, a copy of the certified letter requesting a neighborhood association meeting shall be required for a complete application. The meeting held by the applicant shall be held within the boundaries of the neighborhood association or in a city facility.

4. If the neighborhood association is not currently recognized by the city, is inactive, or does not exist, the applicant shall request a meeting with the citizen involvement committee.
5. To show compliance with this section, the applicant shall submit a sign-in sheet of meeting attendees, a summary of issues discussed, and letter from the neighborhood association or citizen involvement committee indicating that a neighborhood meeting was held. If the applicant held a separately noticed meeting, the applicant shall submit a copy of the meeting flyer, a sign in sheet of attendees and a summary of issues discussed.

Finding: Complies as Proposed. The project is located within the Hillendale Neighborhood Association. The applicant was given incorrect information in the pre-application conference and as a result, contacted the Barclay Hills Neighborhood Association. After corresponding with the Barclay Hills NA, the applicant held their own meeting on August 28th, 2018 at 6PM at their property, and sent the required notices. The neighborhood meeting requirement is not an approval criterion, but a completeness item. The application was deemed complete on April 1, 2019.

17.50.060 Application Requirements.

Finding: Complies as Proposed. All application materials required are submitted with this narrative. The applicant has provided full-size and two reduced size sets of plans to accompany the submittal items.

17.50.070 Completeness Review and 120-day Rule.

Finding: Complies as Proposed. This land use application was submitted on October 3, 2018. The application was deemed complete on April 1, 2019. The applicant granted an extension of the 120-day deadline to November 1, 2019.

17.50.090 Public Notices.

Finding: Complies as Proposed. Staff provided public notice within 300' of the site via mail, newspaper, the site was posted with multiple Land Use Notices and posted on the Oregon City website. Staff provided email transmittal of the application and notice to affected agencies, the Natural Resource Committee and to all Neighborhood Associations requesting comment.

17.50.100 Notice Posting Requirements.

Finding: Complies as Proposed. The applicant provided a signed affidavit that the site was posted with the notice for at least the minimum requirement.

17.50.140 - Performance guarantees.

When conditions of permit approval require a permitee to construct certain improvements, the city may, in its discretion, allow the permitee to submit a performance guarantee in lieu of actual construction of the improvement. Performance guarantees shall be governed by this section.

A. Form of Guarantee. Performance guarantees shall be in a form approved by the city attorney approvable methods of performance guarantee include irrevocable standby letters of credit to the benefit of the city issued by a recognized lending institution, certified checks, dedicated bank accounts or allocations of construction loans held in reserve by the lending institution for the benefit of the city. The form of guarantee shall be specified by the city engineer and, prior to execution and acceptance by the city shall be reviewed and approved by the city attorney. The guarantee shall be filed with the city engineer.

B. Timing of Guarantee. A permittee shall be required to provide a performance guarantee as follows.

1. After Final Approved Design by The City: A permitee may request the option of submitting a performance guarantee when prepared for temporary/final occupancy. The guarantee shall be one hundred twenty percent of the estimated cost of constructing the remaining public improvements as submitted by the permittee's

engineer. The engineer's estimated costs shall be supported by a verified engineering estimate and approved by the city engineer.

2. Before Complete Design Approval And Established Engineered Cost Estimate: A permitee may request the option of submitting a performance guarantee before public improvements are designed and completed. The guarantee shall be one hundred fifty percent of the estimated cost of constructing the public improvements as submitted by the permittee's engineer and approved by the city engineer. The engineer's estimated costs shall be supported by a verified engineering estimate and approved by the city engineer. This scenario applies for a fee-in-lieu situation to ensure adequate funds for the future work involved in design, bid, contracting, and construction management and contract closeout. In this case, the fee-in-lieu must be submitted as cash, certified check, or other negotiable instrument as approved to form by the city attorney.

C. Duration of the Guarantee. The guarantee shall remain in effect until the improvement is actually constructed and accepted by the city. Once the city has inspected and accepted the improvement, the city shall release the guarantee to the permittee. If the improvement is not completed to the city's satisfaction within the time limits specified in the permit approval, the city engineer may, at their discretion, draw upon the guarantee and use the proceeds to construct or complete construction of the improvement and for any related administrative and legal costs incurred by the city in completing the construction, including any costs incurred in attempting to have the permittee complete the improvement. Once constructed and approved by the city, any remaining funds shall be refunded to the permittee. The city shall not allow a permittee to defer construction of improvements by using a performance guarantee, unless the permittee agrees to construct those improvements upon written notification by the city, or at some other mutually agreed-to time. If the permittee fails to commence construction of the required improvements within six months of being instructed to do so, the city may, without further notice, undertake the construction of the improvements and draw upon the permittee's performance guarantee to pay those costs.

Finding: Complies as conditioned. The applicant shall submit a performance guarantee which is equal to one hundred twenty percent of the estimated cost of constructing the stormwater improvements shown in a city approved construction plan provided by the applicant's engineer. The estimated costs shall be supported by a verified engineering estimate and approved by the city engineer. The guarantee shall be in a form identified in Code 17.50.140.A of the Oregon City Municipal Code. The guarantee shall remain in effect until all improvements have been constructed and are accepted by the city.

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

CHAPTER 17.54.100 – FENCES

A. Generally. Fence, hedge, or wall.

1. Fences and walls—Fences and walls over forty-two inches shall not be located in front of the front façade or within forty feet of the public right-of-way, whichever is less. All other fences (including fences along the side and rear of a property) shall not exceed six feet in total height unless as permitted [in] Section 17.54.100.B.

2. Hedges shall not be more than forty-two inches in the underlying front yard setback. Individual plants and trees taller than forty-two inches tall may be permitted provided there is at least one foot clearance between each plant.

3. Property owners shall ensure compliance with the traffic sight obstruction requirements in Chapter 10.32 of the Oregon City Municipal Code.

4. It is unlawful for any person to erect any electric fence or any fence constructed in whole or in part of barbed wire or to use barbed wire, except as erected in connection with security installations at a minimum height of six feet, providing further that prior written approval has been granted by the city manager.

B. Exception. Fence, hedge, wall, or other obstructing vegetation on retaining wall. When a fence, hedge, wall, or other obstructing vegetation is built on a retaining wall or an artificial berm that is not adjacent to or abutting a public right-of-way, the following standards shall apply:

1. When the retaining wall or artificial berm is thirty inches or less in height from the finished grade, the maximum fence or wall height on top of the retaining wall shall be six feet.

2. When the retaining wall or earth berm is greater than thirty inches in height, the combined height of the retaining wall and fence or, wall from finished grade shall not exceed eight and one-half feet.

3. *Fences, hedges or walls located on top of retaining walls or earth berms in excess of eight and one-half feet in height shall be set back a minimum of two feet from the edge of the retaining wall or earth berm below and shall not exceed a combined height of eight and one-half feet.*
4. *An alternative height or location requirement may be approved within a land use process for all non-single-family and two-family residential properties. The fence, hedge or wall shall be compatible with the adjacent neighborhood and achieve the same intent of the zoning designation and applicable site plan and design review process. In no case may the fence, hedge or wall exceed eight feet in height without approval of a variance.*

Finding: Complies as Proposed. The applicant proposes to retain existing fences. No new fences are proposed.

CHAPTER 17.58 LAWFUL NONCONFORMING USES, STRUCTURES AND LOTS

17.58.015 Applicability.
The regulations of this chapter apply only to those nonconforming situations that were lawfully established or that were approved through a land use decision. All nonconforming structures, uses or lots shall have been maintained over time. These situations have lawful nonconforming status. Nonconforming situations that were not allowed when established or have not been maintained over time have no lawful right to continue.
Finding:

A structure that was lawfully established but no longer conforms to all development standards of this land use code (such as setbacks) shall be considered a lawful nonconforming structure. Notwithstanding development standard requirements in this Code, minor repairs and routing maintenance of a lawful nonconforming structure are permitted. The continuation of a lawful nonconforming structure is subject to the following:
A. Accidental Destruction. When a nonconforming structure is damaged by fire or other causes, the structure may be rebuilt using the same structure footprint.
B. Intentional Destruction. When a nonconforming structure is removed or intentionally damaged by fire or other causes within the control of the owner, the replacement structure shall comply with the development standards of this title.
C. Expansion. An expansion of a lawful nonconforming structure may be approved, conditionally approved or denied in accordance with the standards and procedures of this section.
1. In making a determination on such applications, the decision maker shall weigh the proposal's positive and negative features and the public convenience or necessity to be served against any adverse conditions that would result from authorizing the particular development at the location proposed, and, to approve such expansion, it must be found that the criteria identified in Section 17.58.060have either been met, can be met by observance of conditions, or are not applicable.
2. An expansion of a nonconforming structure with alterations that exceed the threshold of subparagraph C.2.a. below shall comply with the development standards listed in subparagraph C.2.b. The value of the alterations and improvements is based on the entire project and not individual building permits.
a. Thresholds triggering compliance. The standards of subparagraph C.2.b. below shall be met when the value of the proposed exterior alterations or additions to the site, as determined by the community development director, is more then seventy-five thousand dollars. The following alterations and improvements shall not be included in the threshold calculation:
1. Proposed alterations to meet approved fire and life safety agreements;
2. Alterations related to the removal of existing architectural barriers, as required by the Americans with Disabilities Act, or as specified in Section 1113 of the Oregon Structural Specialty Code;
3. Alterations required to meet Seismic Design Requirements; and
4. Improvements to on-site stormwater management facilities in conformance with Oregon City Stormwater Design Standards.
b. Standards that shall be met. Developments not complying with the development standards listed below shall be brought into conformance.
1. Pedestrian circulation systems, as set out in the pedestrian standards that apply to the sites;
2. Minimum perimeter parking lot landscaping;
3. Minimum interior parking lot landscaping;

4. Minimum site landscaping requirements;
5. Bicycle parking by upgrading existing racks and providing additional spaces in order to comply with Chapter 17.52—Off-Street Parking and Loading;
6. Screening; and
7. Paving of surface parking and exterior storage and display areas.
c. Area of required improvements.
1. Generally. Except as provided in C.2.c.2. below, required improvements shall be made for the entire site.
2. Exception for sites with ground leases. Required improvements may be limited to a smaller area if there is a ground lease for the portion of the site where the alterations are proposed. If all of the following are met, the area of the ground lease will be considered as a separate site for purposes of required improvements. The applicant shall meet the following:
i. The signed ground lease — or excerpts from the lease document satisfactory to the city attorney — shall be submitted to the community development director. The portions of the lease shall include the following:
•The term of the lease. In all cases, there must be at least one year remaining on the ground lease; and
•A legal description of the boundaries of the lease.
ii. The boundaries of the ground lease shall be shown on the site plan submitted with the application. The area of the lease shall include all existing and any proposed development that is required for, or is used exclusively by, those uses within the area of the lease; and
iii. Screening shall not be required along the boundaries of ground leases that are interior to the site.
d. Timing and cost of required improvements. The applicant may choose one of the two following options for making the required improvements:
1. Option 1. Required improvements may be made as part of the alteration that triggers the required improvements. The cost of the standards that shall be met, identified in subparagraph C.2.b. above, is limited to ten percent of the value of the proposed alterations. It is the responsibility of the applicant to document to the community development director the value of the required improvements. Additional costs may be required to comply with other applicable requirements associated with the proposal. When all required improvements are not being made, the priority for the improvements shall be as listed in subparagraph C.2.b. above.
2. Option 2. Required improvements may be made over several years, based on the compliance period identified in Table 17.58—1 below. However, by the end of the compliance period, the site shall be brought fully into compliance with the standards listed in subparagraph C.2.b. Where this option is chosen, the following must be met:
i. Before a building permit is issued, the applicant shall submit the following to the community development director:
•A Nonconforming Development Assessment, which identifies in writing and on a site plan, all development that does not meet the standards listed in Subparagraph C.2.b.
•A covenant, in a form approved by the city attorney, executed by the property owner that meets the requirements of 17.50.150. The covenant shall identify development on the site that does not meet the standards listed in Subparagraph C.2.b., and require the owner to bring that development fully into compliance with this title. The covenant shall also specify the date by which the owner will be in conformance. The date must be within the compliance periods set out in Table17.58 — 1.
ii. The nonconforming development identified in the Nonconforming Development Assessment shall be brought into full compliance with the requirements of this Title within the following compliance periods. The compliance period begins when a building permit is issued for alterations to the site of more than seventy-five thousand dollars. The compliance periods are based on the size of the site (see Table 17.58—1 below).
iii. By the end of the compliance period, the applicant or owner shall request that the site by certified by the community development director as in compliance. If the request is not received within that time, or if the site is not fully in conformance, no additional building permits will be issued.
iv. If the regulations referred to by subparagraph C.2.b. are amended after the Nonconforming Development Assessment is received by the community development director, and those amendments result in development on the site that was not addressed by the Assessment becoming nonconforming, the applicant shall address the new nonconforming development using Option 1 or 2. If the applicant chooses Option 2, a separate Nonconforming Development Assessment, covenant and compliance period will be required for the new nonconforming development.
Table 17.58—1
Compliance Periods for Option 2

Square footage of site	*Compliance Period*
Less than 150,000 sq. ft.	*2 years*
150,000 sq. ft. or more, up to 300,000 sq. ft.	*3 years*
300,000 sq. ft. or more, up to 500,000 sq. ft.	*4 years*
More than 500,000 sq. ft.	*5 years*

Finding: Complies with Condition. The subject site was constructed prior to adoption of the existing standards and is nonconforming for a variety of reasons including the location of the parking lot in front of the building, as well as a parking lot in front of the building. The applicant indicated that the cost of the project will be more than $75,000. The proposal does include nonconforming upgrades which may be excluded from the construction cost such as some of the landscaping as well as the bicycle parking. The applicant shall provide the construction cost estimate and make nonconforming upgrades per OCMC 17.58 as required. Note that the upgrades are limited to 10% of the construction cost and the items in OCMC 17.58.040.c.2.b. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

CONCLUSION AND RECOMMENDATION:

Based on the analysis and findings as described above, Staff concludes that the proposed variance, parking adjustment, and parking lot located 1680 Molalla Avenue, identified as Clackamas County Map 3-2E-05C Taxlot 00301 can meet the requirements as described in the Oregon City Municipal Code by complying with the Conditions of Approval provided in this report. Staff recommends approval of file GLUA 18-00031 with conditions, based upon the findings and exhibits contained in this staff report.

EXHIBITS:

1. Vicinity Map (On File)
2. Applicant's Narrative and Plans (On File)
3. Public Comments
4. Letter from John Replinger (On File)

Oregon City GIS Map

Legend

- Street Names
- Taxlots
- Taxlots Outside UGB
- City Limits
- UGB
- Basemap

Notes

Overview Map

The City of Oregon City makes no representations, express or implied, as to the accuracy, completeness and timeliness of the information displayed. This map is not suitable for legal, engineering, surveying or navigation purposes. Notification of any errors is appreciated.

N

0 200 Feet

1: 2,400

City of Oregon City
PO Box 3040
625 Center St
Oregon City
OR 97045
(503) 657-0891
www.orcity.org

Map created 8/1/2019

EMERIO Design

Civil Engineering
Land Survey
Land Use Planning
Construction Management

STE. 100, 6445 S.W. Fallbrook Place ● Beaverton, Oregon 97008 ● 503-746-8812 | TEL ● 503-639-9592 | FAX
www.emeriodesign.com

LAND USE APPLICATION
MARQUIS PARKING LOT EXPANSION
1680 Molalla Avenue

Submitted to:
City of Oregon City

Revised June 2019

SITE ADDRESS
1680 Molalla Avenue
City of Oregon City,
Clackamas County, Oregon

LOCATION
Located on the southeast corner of the intersection of Molalla Avenue and Beavercreek Road, in the Barclay Hills Neighborhood Association

ASSESSOR'S INFO
Tax Lot 00301 of Assessor's Map 3 2E 05C
City of Oregon City, Clackamas County, Oregon

ZONING
City of Oregon City "C" Commercial

PROPERTY OWNER / APPLICANT
Marquis Companies
9560 SE International Way, #100
Portland, Oregon 97222
email: smiller@marquiscompanies.com

PLANNER / ENGINEER / SURVEYOR
EMERIO DESIGN LLC
Trisha Clark, Planner
6445 SW Fallbrook Drive, Suite 100
Beaverton, Oregon 97008
phone: 503.746.8812
trisha@emeriodesign.com

TRAFFIC ENGINEER
Charbonneau Engineering
Frank Charbonneau, PE, PTOE
97035 SW Barber Boulevard, Suite 210A
Portland, Oregon 97219
phone: 503.293.1118

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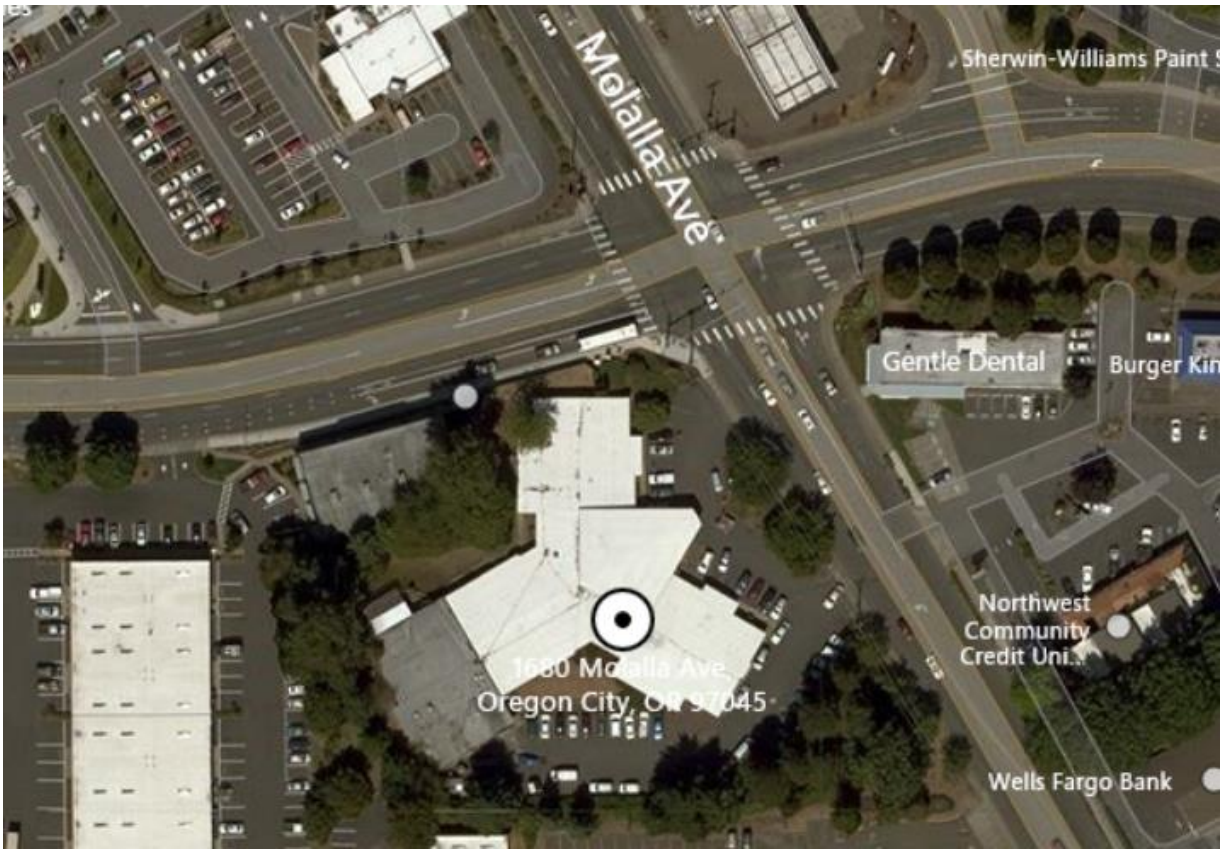
SITE DESCRIPTION& PROPOSED ACTION

The subject site is located on the west side of Molalla Avenue, at the intersection of Molalla Avenue and Beavercreek Road. The subject site contains one parcel of land, Tax Lot 003010 of Clackamas County Assessor's Map 3 2E 05C and is addressed at 1680 Molalla Avenue, within the city of Oregon City, Oregon.



This request is for a parking adjustment, a major variance and site plan design review through a Type 3 review process.

The site has access to Molalla Avenue at the north end of the site and also at the southeast corner of the site. The building is already connected to public services. No changes to the existing building has been proposed. There is existing lighting attached to the building that will be retained.

The parking lot expansion is needed because the current parking lot is continually full through out the day and visitors and workers for the facility often cannot find parking in the lot dedicated to the facility and end up parking off-site at adjacent businesses, as there are no on-street parking opportunities in the immediate area.

The operation of the facility is completely dependent on the ability of staff to get to work to care for the residents; lack of on-site parking is a big issue that comes up each day at shift change, where staff must overlap to ensure the needed level of care for residents and patents.

STAFFING: Staffing for the current facility is as follows (from the facility director):

The number of staff and management members fluctuates with our census, as we have state mandated staffing ratios but on average:

- Monday through Friday
  - 6am-2pm approximately 44 employees
  - 2pm-5pm approximately 35 employees
  - 5pm-10pm approximately 13 employees
  - 10pm-6am approximately 7 employees

  Along with visitors for an average resident census of 58
- Saturday and Sunday
  - 6am-2pm approximately 28 employees
  - 2pm-5pm approximately 19 employees
  - 5pm-10pm approximately 13 employees
  - 10pm-6am approximately 7 employees

  Along with visitors for an average resident census of 58

Staff meetings are held twice a month, where every staff member is required to attend for training required in-servicing. These occur around the 10th and 25th of every month at 2 p.m.

Included with this request is an email from Jordan Turner, the Administrator for the company, which describes in detail the daily goings on at the site. Also in that email is how Jordan inquired to neighboring business owners about shared parking and was denied, even being told that cars will be towed if parked in their lots.

REQUESTED ADJUSTMENT, VARIANCE and NON-CONFORMING

This request is for a Type III decision process involving a Parking Adjustment, Major Variance and Site Plan and Design Review.

Parking Adjustment: Because the requested number of parking stalls exceed the maximum allowed for the existing use, which is a residential care facility. Included with this request is a detailed Parking Analysis and report provided by the applicant's Traffic Engineer, Frank Charbonneau.

Major Variance: OCMC 17.62.050.2.A states that parking areas shall be located behind, below or on one or both sides of buildings. In this case, the existing parking lot is already located partially in front of the building and the revised parking area will continue to have spaces in front of the building, therefore a Variance is needed.

Non-Conforming: The site is non-conforming due to building and parking lot placement and building design. The proposed exterior improvements trigger required non-conforming upgrades, including pedestrian circulation and landscaping requirements, bike parking and screening; these enhancements have been included as a part of this approval request.

APPLICABLE CRITERIA FROM THE OREGON CITY MUNICIPAL CODE

Chapter 12.04 - STREETS, SIDEWALKS AND PUBLIC PLACES

12.04.003 - Applicability.

A. Compliance with this chapter is required for all land divisions, site plan and design review, master plan, detailed development plan and conditional use applications and all public improvements.

Response: This application is for a Site Plan Review; therefore, these standards are applicable to this request.

12.04.005 - Jurisdiction and management of the public rights-of-way.

A. The city has jurisdiction and exercises regulatory management over all public rights-of-way within the city under authority of the City Charter and state law by issuing separate public works right-of-way permits or permits as part of issued public infrastructure construction plans. No work in the public right-of-way shall be done without the proper permit. Some public rights-of-way within the city are regulated by the State of Oregon Department of Transportation (ODOT) or Clackamas County and as such, any work in these streets shall conform to their respective permitting requirements.

B. Public rights-of-way include, but are not limited to, streets, roads, highways, bridges, alleys, sidewalks, trails, paths, public easements and all other public ways or areas, including the subsurface under and air space over these areas.

C. The city has jurisdiction and exercises regulatory management over each public right-of-way whether the city has a fee, easement, or other legal interest in the right-of-way. The city has jurisdiction and regulatory management of each right-of-way whether the legal interest in the right-of-way was obtained by grant, dedication, prescription, reservation, condemnation, annexation, foreclosure or other means.

D. No person may occupy or encroach on a public right-of-way without the permission of the city. The city grants permission to use rights-of-way by franchises, licenses and permits.

E. The exercise of jurisdiction and regulatory management of a public right-of-way by the city is not official acceptance of the right-of-way, and does not obligate the city to maintain or repair any part of the right-of-way. (Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010; Ord. No. 13-1014, § 2, 11-6-2013)

Response: The applicant acknowledges that the city has jurisdiction over the public right of ways. There are no encroachments into the right of way, existing or proposed.

12.04.007 - Modifications.

The review body may consider modification of this standard resulting from constitutional limitations restricting the city's ability to require the dedication of property or for any other reason, based upon the criteria listed below and other criteria identified in the standard to be modified. All modifications shall be processed through a Type II Land Use application and may require additional evidence from a transportation engineer or others to verify compliance. Compliance with the following criteria is required:

A. The modification meets the intent of the standard;

B. The modification provides safe and efficient movement of pedestrians, motor vehicles, bicyclists and freight;

C. The modification is consistent with an adopted plan; and

D. The modification is complementary with a surrounding street design; or, in the alternative;

E. If a modification is requested for constitutional reasons, the applicant shall demonstrate the constitutional provision or provisions to be avoided by the modification and propose a modification that complies with the state or federal constitution. The city shall be under no obligation to grant a modification in excess of that which is necessary to meet its constitutional obligations. (Ord. No. 13-1003, § 1(Exh. 1), 7-17-2013)

Response: No modification to the right of way is proposed with this request.

12.04.010 - Construction specifications—Improved streets.

All sidewalks hereafter constructed in the city on improved streets shall be constructed to city standards and widths required in the Oregon City Transportation System Plan. The curb shall be constructed at the same time as the construction of the sidewalk and shall be located as provided in the ordinance authorizing the improvement of said street next proceeding unless otherwise ordered by the city commission. Both sidewalks and curbs are to be constructed according to plans and specifications provided by the city engineer. (Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

Response: Any sidewalks that need to be replaced with be improved to the city's standards. No public sidewalks are currently anticipated to need to be replaced.

12.04.025 - Street design—Driveway curb cuts.***Response: This application has included a Traffic Analysis performed by Charbonneau Engineering that addresses the streets and drive-way curb cuts.***

12.04.030 - Maintenance and repair.***Response: This application will keep the driveways maintained and repaired as necessary.***

Chapter 12.08 - PUBLIC AND STREET TREES

2.08.015 - Street tree planting and maintenance requirements.

All new construction or major redevelopment shall provide street trees adjacent to all street frontages. Species of trees shall be selected based upon vision clearance requirements, but shall in all cases be selected from the Oregon City Street Tree List or be approved by a certified arborist. If a setback sidewalk has already been constructed or the Development Services determines that the forthcoming street design shall include a setback sidewalk, then all street trees shall be installed with a planting strip. If existing street design includes a curb-tight sidewalk, then all street trees shall be placed within the front yard setback, exclusive of any utility easement.

A. One street tree shall be planted for every thirty-five feet of property frontage. The tree spacing shall be evenly distributed throughout the total development frontage. The community development director may approve an alternative street tree plan if site or other constraints prevent meeting the placement of one street tree per thirty-five feet of property frontage.

Response: Street trees will be placed along the site's frontage, as shown on the Landscaping Plans that are a part of this request.

B. The following clearance distances shall be maintained when planting trees:

1. Fifteen feet from streetlights;

2. Five feet from fire hydrants;

3. Twenty feet from intersections;

4. A minimum of five feet (at mature height) below power lines.

Response: Street trees will be placed according to the above specifications.

C. All trees shall be a minimum of two inches in caliper at six inches above the root crown and installed to city specifications.

Response: Street trees will be placed according to the above specifications.

D. All established trees shall be pruned tight to the trunk to a height that provides adequate clearance for street cleaning equipment and ensures ADA complaint clearance for pedestrians. (Ord. No. 08-1014, 7-1-2009)

Response: Any established trees will be pruned to the appropriate height.

12.08.020 - Street tree species selection.

The community development director may specify the species of street trees required to be planted if there is an established planting scheme adjacent to a lot frontage, if there are obstructions in the planting strip, or if overhead power lines are present. (Ord. No. 08-1014, 7-1-2009)

Response: Street trees are anticipated to be "Green Village Zinkova", as shown on the Landscaping Plans.

12.08.025 - General tree maintenance.

Abutting property owners shall be responsible for the maintenance of street trees and planting strips. Topping of trees is permitted only under recommendation of a certified arborist, or other qualified professional, if required by city staff. Trees shall be trimmed appropriately. Maintenance shall include trimming to remove dead branches, dangerous limbs and to maintain a minimum seven-foot clearance above all sidewalks and ten-foot clearance above the street. Planter strips shall be kept clear of weeds, obstructing vegetation and trash. (Ord. No. 08-1014, 7-1-2009)

Response: The owners of the site will maintain the street trees and other trees on the site as necessary to keep them healthy and ensure that they are kept in a safe condition.

Chapter 13.12 - STORMWATER MANAGEMENT

13.12.010 - Purpose.

The purpose of this chapter is to define policies, minimum requirements, minimum standards and design procedures and permits for the construction and maintenance of stormwater conveyance and quantity and quality control facilities in order to:

A. Minimize increased stormwater runoff rates from any development so as to minimize the impact upon any downstream natural channel that may exist between the subject area and the Willamette or Clackamas Rivers;

B. Prevent water runoff generated by development from exceeding the capacity of downstream stormwater facilities;

C. Reduce stormwater runoff rates and volumes, soil erosion and pollution, wherever possible, from developed and developing lands;

D. Prevent the uncontrolled or irresponsible discharge of stormwater from new development onto adjoining public or private property;

E. Maintain the integrity of stream channels for their biological functions, as well as for drainage and other purposes;

F. Have stormwater conveyance facilities of adequate design to manage all volumes of water generated in the contributing drainage area, for both the existing condition and the anticipated future condition;

G. Have all stormwater facilities:

1. Designed to mimic natural hydrologic conditions, to the maximum extent practicable;

2. Designed in a manner to allow economical future maintenance;

3. If city owned or maintained, designed for maintenance with city owned equipment;

4. Designed using materials that will ensure a minimum practical design life of seventy-five years; and

5. Designed to have sufficient structural strength to resist erosion and all external loads (construction, traffic, seismic) which may be imposed;

H. Establish maintenance easements with the owners of privately owned/maintained stormwater facilities to ensure an appropriate level of maintenance and to help minimize public safety hazards;

I. Have all new stormwater facilities comply with applicable National Pollutant Discharge Elimination System (NPDES) requirements;

J. Minimize the deterioration of existing watercourses, culverts, bridges, dams and other structures;

K. Minimize increases in stormwater pollution;

L. Allow for periodic inspections of both private and public stormwater quantity control and quality control facilities to verify that they are functioning in substantial conformance with the approved design intent; and

M. Allow issuance of engineering permits for stormwater work in the right-of-way or public easements either as a separate Public Works permit or as part of overall issued public infrastructure construction plans. The various fees for these permits are approved and modified from time to time by the city commission. Failure to meet the conditions of the issued permit shall constitute a violation of the Municipal Code.

Response: ***The existing parking lot was constructed before storm water treatment and management was a priority, so the existing water quality for the site is very minimal.***

Storm water management has been addressed as a part of this parking lot expansion and re-design. The improvements to the parking lot will tremendously enhance the storm water treatment from the site. Allowing the approval of the project will improve the conditions on the site in regard to this standard tremendously and bring the parking lot up to current standards.

A full Storm Drainage Report is included with this request. Easements will be provided by separate deed document for any needed easements to access and maintain the storm water facilities.

Chapter 15.48 - GRADING, FILLING AND EXCAVATING

15.48.010 - Purpose.

The purpose of this chapter is to mitigate, minimize or eliminate the adverse impacts caused by grading, fill and excavation activities on public or private property. It establishes policies, procedures and minimum requirements for grading and earthwork construction. It is intended to promote the general health, safety and welfare of the public and requires the applicant to follow sound land development practices.

15.48.030 - Applicability—Grading permit required.

A. A city-issued grading permit shall be required before the commencement of any of the following filling or grading activities:

1. Grading activities in excess of ten cubic yards of earth;

2. Grading activities which may result in the diversion of existing drainage courses, both natural and man-made, from their natural point of entry or exit from the grading site;

3. Grading and paving activities resulting in the creation of impervious surfaces greater than two thousand square feet or more in area;

4. Any excavation beyond the limits of a basement or footing excavation, having an unsupported soil height greater than five feet after the completion of such a structure; or

5. Grading activities involving the clearing or disturbance of one-half acres (twenty-one thousand seven hundred eighty square feet) or more of land.

B. Those fill and grading activities proposed to be undertaken in conjunction with a land use application, including but not limited to subdivisions, planned unit developments, partitions and site plan reviews, are subject to the standards of this chapter. However, a separate grading permit is not required. Approval of the construction plans submitted through the land use application process shall constitute the grading permit required under this chapter.

Response: ***The applicant will provide full engineering plans for the parking lot construction for the review and approval by the city before any on-site activities can occur.***

The applicant will apply for and obtain all needed permits, including a Grading Permit for the construction of the site.

Chapter 17.32 - C GENERAL COMMERCIAL DISTRICT

17.32.020 - Permitted uses.

A. Any use permitted in the MUC - Mixed Use Corridor zone with no maximum footprint size, unless otherwise restricted in Sections 17.24.020, 17.24.030 or 17.24.040;

Response: The current use of the building and site is allowed per Chapter 17.29 - "MUC": 17.29.020 - Permitted uses—MUC-1 and MUC-2. S. Assisted living facilities; nursing homes and group homes for over fifteen patients; and Z. Residential care facility

17.32.050 - Dimensional standards.

A. Minimum lot area: None.

Response: The site contains 1.94 acres.

B. Maximum building height: Sixty feet.

Response: The existing building is to remain and is not proposed for alteration and is approximately 16 feet in height.

C. Minimum required setbacks if not abutting a residential zone: None.

D. Minimum required interior and rear yard setbacks if abutting a residential zone: twenty feet, plus one foot additional yard setback for every two feet of building height over thirty-five feet.

Response: The site is not abutting a residential zone, therefore there are no minimum setback requirements and C. and D., above, do not apply to this request.

E. Maximum Allowed Setbacks.

1. Front yard setback: Five feet (may be expanded with Site Plan and Design Review Section 17.62.055).

Response: The front of the building exceeds 5 feet as shown on the Site Plan. The building is existing and was placed on the site before the current standards.

2. Interior side yard setback: None.

3. Corner side yard setback abutting street: None

4. Rear yard setback: None.

Response: The General Commercial zone does not have any required setbacks when the site does not abut a residential zone aside from the maximum front yard setback above.

F. Maximum site coverage of building and parking lot: Eighty-five percent

Response: The existing building and the parking lot after expansion will cover approximately 80% of the site.

G. Minimum landscaping requirement (including parking lot): Fifteen percent.

Response: ***The project will provide a minimum of 15% landscaping. A full Landscaping Plan is included with this request.***

Chapter 17.41 - TREE PROTECTION STANDARDS

17.41.020 - Tree protection—Applicability.

1. Applications for development subject to Chapters 16.08 or 16.12 (Subdivision or Minor Partition) or Chapter 17.62 (Site Plan and Design Review) shall demonstrate compliance with these standards as part of the review proceedings for those developments.

2. For public capital improvement projects, the city engineer shall demonstrate compliance with these standards pursuant to a Type II process.

3. Tree canopy removal greater than twenty-five percent on sites greater than twenty-five percent slope, unless exempted under Section 17.41.040, shall be subject to these standards.

4. A heritage tree or grove which has been designated pursuant to the procedures of Chapter 12.08.050 shall be subject to the standards of this section.

Response: ***The prosed development is for Design Review, therefore these standards apply. No slopes greater than 25% exist on the subject site. There are no heritage trees on the site.***

Trees will be protected as needed as a part of the construction of the expanded parking lot. Trees to be removed are shown on sheet 2 of the Preliminary Plans. Trees will be replaced, as shown on the Landscaping Plan on sheet L101.

Chapter 17.47 - EROSION AND SEDIMENT CONTROL

17.47.030 - Applicability.

A. This chapter, which may also be referred to as "erosion control" in this Code, applies to development that may cause visible or measurable erosion on any property within the city limits of Oregon City.

B. This chapter does not apply to work necessary to protect, repair, maintain or replace existing structures, utility facilities, roadways, driveways, accessory uses and exterior improvements in response to emergencies, provided that after the emergency has passed, adverse impacts are mitigated in accordance with applicable standards.

Response: ***Erosion control will be address with the final engineering plans for the parking lot construction. Erosion control will be provided for the construction of the parking lot expansion and is shown on the included Preliminary Plans.***

Chapter 17.50 - ADMINISTRATION AND PROCEDURES

17.50.010 - Purpose.

This chapter provides the procedures by which Oregon City reviews and decides upon applications for all permits relating to the use of land authorized by ORS Chapters 92, 197 and 227. These permits include all form of land divisions, land use, limited land use and expedited land division and legislative enactments and amendments to the Oregon City comprehensive plan and Titles 16 and 17 of this code. Pursuant to ORS 227.175, any applicant may elect to consolidate applications for two or more related permits needed for a single development project. Any grading activity associated with development shall be subject to preliminary review as part of the review process for the underlying development. It is the express policy of the city that development review not be segmented into discrete parts in a manner that precludes a comprehensive review of the entire development and its cumulative impacts.

Response: The applicant will provide full engineering plans and will obtain all required permits for the parking lot construction.

Chapter 17.52 - OFF-STREET PARKING AND LOADING

17.52.010 - Applicability.

The construction of a new structure or parking lot, or alterations to the size or use of an existing structure, parking lot or property use shall require site plan review approval and compliance with this chapter. This chapter does not apply to single- and two-family residential dwellings. (Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

Response: An expansion of an existing parking lot is proposed, therefore these standards apply to this request.

17.52.015 - Planning commission adjustment of parking standards.

A. Purpose: The purpose of permitting a planning commission adjustment to parking standards is to provide for flexibility in modifying parking standards in all zoning districts, without permitting an adjustment that would adversely impact the surrounding or planned neighborhood. The purpose of an adjustment is to provide flexibility to those uses which may be extraordinary, unique or to provide greater flexibility for areas that can accommodate a denser development pattern based on existing infrastructure and ability to access the site by means of walking, biking or transit. An adjustment to a minimum or maximum parking standard may be approved based on a determination by the planning commission that the adjustment is consistent with the purpose of this Code, and the approval criteria can be met.

Response: This application is requesting Planning Commission approval of an expansion of the parking lot for the existing facility. The applicant needs flexibility for the site because under the current standards for the maximum parking allowed, the site and staff are severely underserved to allow for the proper management and facilitation of the on-site activities, which is 24 hour care.

The site already meets the bulk of the development standards for the General Commercial zone for setbacks and building height.

The need is unique to the specific site, the activities of the business and the location in the city, where there are no on-street parking opportunities anywhere in the vicinity to handle the extra parking needs of the staff and visitors, particularly at shift change times for staff.

B. Procedure: A request for a planning commission parking adjustment shall be initiated by a property owner or authorized agent by filing a land use application. The application shall be accompanied by a site plan, drawn to scale, showing the dimensions and arrangement of the proposed development and parking plan, the extent of the adjustment requested along with findings for each applicable approval criteria. A request for a parking adjustment shall be processed as a Type III application as set forth in Chapter 17.50.

Response: This owner of the site, Marquis Companies, has initiated this request. Included are Site Plans and other support information.

C. Approval criteria for the adjustment are as follows:

1. Documentation: The applicant shall document that the individual project will require an amount of parking that is different from that required after all applicable reductions have been taken.

Response: The need for additional parking is documented in the project description on page 3 of this narrative, where the shifts and hours f employees for the care facility are detailed and also in the email from Jordan Turner, Administrator.

The use of the site is labor/client intensive, and the users are far varied beyond the standard "nursing home" clientele, this is largely because the facility also provides rehabilitation care, along with other services, which requires outside specialist and services. Along with additional family who visit.

2. Parking analysis for surrounding uses and on-street parking availability: The applicant must show that there is a continued fifteen percent parking vacancy in the area adjacent to the use during peak parking periods and that the applicant has permission to occupy this area to serve the use pursuant to the procedures set forth by the community development director.

a. For the purposes of demonstrating the availability of on street parking as defined in [Section] 17.52.020.B.3., the applicant shall undertake a parking study during time periods specified by the community development director. The time periods shall include those during which the highest parking demand is anticipated by the proposed use. Multiple observations during multiple days shall be required. Distances are to be calculated as traversed by a pedestrian that utilizes sidewalks and legal crosswalks or an alternative manner as accepted by the community development director.

b. The onsite parking requirements may be reduced based on the parking vacancy identified in the parking study. The amount of the reduction in onsite parking shall be calculated as follows:

i. Vacant on-street parking spaces within three hundred feet of the site will reduce onsite parking requirements by 0.5 parking spaces; and

ii. Vacant on-street parking spaces between three hundred and six hundred feet of the [site] will reduce onsite parking requirements by 0.2 parking spaces.

Response: ***The applicant has included a Traffic Analysis and Report from Frank Charbonneau, to provide the information as required by the standards above.***

There are practically no on street parking opportunity within at least mile of the site, with the entire area being primarily commercial uses. To the north is Beavercreek Road, and to the east is Molalla Avenue, both major roadways with no on-street parking.

The other surrounding properties are retail and commercial establishments, and while there is occasional parking available within those parking lots sometimes, those parking spaces are intended for those uses, not the overflow and shift changes and visitors from the subject site.

3. Function and Use of Site: The applicant shall demonstrate that modifying the amount of required parking spaces will not significantly impact the use or function of the site and/or adjacent sites.

Response: ***The requested increase will actually increase the function and use of the site because the staff, outside specialists, and visitors will have safe parking on site. Currently, parking sometimes occurs within the parking lots of adjacent businesses, which causes a domino effect on the efficiency of parking in the area. Also, adjacent business do not want workers and visitors from this facility parking in their parking lots.***

4. Compatibility: The proposal is compatible with the character, scale and existing or planned uses of the surrounding neighborhood.

Response: ***The proposed parking lot is compatible with the surrounding area because the area is all commercial uses with large parking lots. The entire area is fully developed. Additional landscaping and enhancement will be provided to the change is an improvement on the existing conditions on the site. Additional, better storm water management will be provided by default, which is more compatible to the current standards.***

5. Safety: The proposal does not significantly impact the safety of adjacent properties and rights-of-way.

Response: ***The proposed increase in parking will have no impact on the safety of adjacent properties or the right of way. As a matter of fact, the parking spaces currently located near the entryway will be moved and that will improve safety to the right of way of Molalla Avenue in that area because there will be less conflict in parking in that area. Please see the Traffic Study for additional information about safety.***

6. Services: The proposal will not create a significant impact to public services, including fire and emergency services.

Response: ***The proposal will not have any impact to public services, as the site is already has access and is connected to all needed services. No change to services is approved.***

17.52.020 - Number of automobile spaces required.

A. The number of parking spaces shall comply with the minimum and maximum standards listed in Table 17.52.020. The parking requirements are based on spaces per one thousand square feet net leasable area unless otherwise stated.

Response: ***Per Table 17.52.020, Senior housing, including congregate care, residential care and assisted living facilities; nursing homes and other types of group homes requires 1 parking space per 7 beds minimum and 1 space per 5 bed maximum.***

Currently there are 43 parking spaces, proposed are a total of 63 spaces, including 3 ADA spaces and 28 compact spaces.

The included Traffic Study goes in depth about the comparison to the allowed number od spaces versus the actual on-site uses and needs, please refer to that report for additional information.

17.52.030 - Standards for automobile parking.

A. Access. Ingress and egress locations on public thoroughfares shall be located in the interests of public traffic safety. Groups of more than four parking spaces shall be so located and served by driveways so that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley. No driveway with a slope of greater than fifteen percent shall be permitted without approval of the city engineer.

Response: The current access points will be retained. There will not be any back moments or other maneuvering within a street right of way.

The applicant has included a Traffic Analysis and Report to provide the information as required by the standards above.

B. Surfacing. Required off-street parking spaces and access aisles shall have paved surfaces adequately maintained. The use of pervious asphalt/concrete and alternative designs that reduce storm water runoff and improve water quality pursuant to the city's stormwater and low impact development design standards are encouraged.

Response: The parking lot surface will be paved with asphalt.

C. Drainage. Drainage shall be designed in accordance with the requirements of Chapter 13.12 and the city public works stormwater and grading design standards.

Response: The parking lot surface will be paved with asphalt and drainage will be addressed within the treatment areas in the parking lot islands, as shown on the Preliminary Utility Plan on sheet 5 of the Preliminary Plans.

D. Dimensional Standards.

1. Requirements for parking developed at varying angles are according to the table included in this section. A parking space shall not be less than seven feet in height when within a building or structure, and shall have access by an all-weather surface to a street or alley. Parking stalls in compliance with the American with Disabilities Act may vary in size in order to comply with the building division requirements. Up to thirty-five percent of the minimum required parking may be compact, while the remaining required parking stalls are designed to standard dimensions. The community development director may approve alternative dimensions for parking stalls in excess of the minimum requirement which comply with the intent of this chapter.

Response: The parking lot configuration is detailed within the Preliminary Plans for the site. The existing lot boundary will retain and some of the existing parking were practical has been preserved. Some of the spaces have been re-configured to allow for better safety, such as the spaces at the driveway entry at the north side of the site, where the parking was re-located, and a service vehicle area has been placed.

2. Alternative parking/plan. Any applicant may propose an alternative parking plan. Such plans are often proposed to address physically constrained or smaller sites, however innovative designs for larger sites may also be considered. In such situations, the community development director may approve an alternative parking lot plan with variations to parking dimensions of this section. The alternative shall be consistent with the intent of this chapter and shall create a safe space for automobiles and pedestrians while providing landscaping to the quantity and quality found within parking lot landscaping requirements.

Response: ***A parking plan is included with this request. The site and the existing location of the building set the shape and configuration of the proposed parking lot. Alternative Parking plans are not proposed.***

17.52.040 - Bicycle parking standards.

A. Purpose-Applicability. To encourage bicycle transportation to help reduce principal reliance on the automobile, and to ensure bicycle safety and security, bicycle parking shall be provided in conjunction with all uses other than single-family dwellings or duplexes.

B. Number of Bicycle Spaces Required. For any use not specifically mentioned in Table A, the bicycle parking requirements shall be the same as the use which, as determined by the community development director, is most similar to the use not specifically mentioned. Calculation of the number of bicycle parking spaces required shall be determined in the manner established in Section 17.52.020 for determining automobile parking space requirements. Modifications to bicycle parking requirements may be made through the site plan and design, conditional use, or master plan review process.

Response: ***Per Table A - Required Bicycle Parking Spaces*, Nursing home or care facility require 1 bike parking space per 30 auto spaces (minimum of 2). Proposed are two bike parking spaces next to the building.***

17.52.060 - Parking lot landscaping.

Purpose. The purpose of this code section includes the following:

1. To enhance and soften the appearance of parking lots;
2. To limit the visual impact of parking lots from sidewalks, streets and particularly from residential areas;
3. To shade and cool parking areas;
4. To reduce air and water pollution;
5. To reduce storm water impacts and improve water quality; and
6. To establish parking lots that are more inviting to pedestrians and bicyclists.

A. Development Standards.

1. The landscaping shall be located in defined landscaped areas that are uniformly distributed throughout the parking or loading area.

Response: The landscaping is all shown in defined landscaping areas, as shown on the Landscaping Plan included with this request.

2. All areas in a parking lot not used for parking, maneuvering, or circulation shall be landscaped.

Response: Landscaping will be placed in all areas there is not vehicle parking or maneuvering, as shown on the Landscaping Plan included with this request.

3. Parking lot trees shall be a mix of deciduous shade trees and coniferous trees. The trees shall be evenly distributed throughout the parking lot as both interior and perimeter landscaping to provide shade.

Response: The landscaping will be a mix of trees and are defined and shown on the Landscaping Plan included with this request.

4. Required landscaping trees shall be of a minimum two-inch minimum caliper size (though it may not be standard for some tree types to be distinguished by caliper), planted according to American Nurseryman Standards, and selected from the Oregon City Street Tree List;

Response: Landscape trees will a minimum of 2" caliper size and will be planted according to the ANS and selected from the Oregon City Street Tree List.

5. Landscaped areas shall include irrigation systems unless an alternate plan is submitted, and approved by the community development director, that can demonstrate adequate maintenance;

Response: Plans for irrigation are detailed within the included Landscaping Plans.

6. All plant materials, including trees, shrubbery and ground cover should be selected for their appropriateness to the site, drought tolerance, year-round greenery and coverage and staggered flowering periods. Species found on the Oregon City Native Plant List are strongly encouraged and species found on the Oregon City Nuisance Plant List are prohibited.

Response: All planting materials will be selected for their appropriateness for the site and are detailed within the included Landscaping Plans.

7. The landscaping in parking areas shall not obstruct lines of sight for safe traffic operation and shall comply with all requirements of Chapter 10.32, Traffic Sight Obstructions.

Response: All planting materials will be selected for their appropriateness for a parking lot and will not obstruct lines of sight.

8. Landscaping shall incorporate design standards in accordance with Chapter 13.12, Stormwater Management.

Response: The landscaping and storm water management have been incorporated in design to work together for ascetics and functionality.

B. Perimeter Parking Lot Landscaping and Parking Lot Entryway/Right-of-Way Screening. Parking lots shall include a five-foot wide landscaped buffer where the parking lot abuts the right-of-way and/or adjoining properties. In order to provide connectivity between non-single-family sites, the community development director may approve an interruption in the perimeter parking lot landscaping for a single driveway where the parking lot abuts property designated as multi-family, commercial or industrial. Shared driveways and parking aisles that straddle a lot line do not need to meet perimeter landscaping requirements.

1. The perimeter parking lot are[a] shall include:

   a. Trees spaced a maximum of thirty-five feet apart (minimum of one tree on either side of the entryway is required). When the parking lot is adjacent to a public right-of-way, the parking lot trees shall be offset from the street trees;

   b. Ground cover, such as wild flowers, spaced a maximum of 16-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and

   c. An evergreen hedge screen of thirty to forty-two inches high or shrubs spaced no more than four feet apart on average. The hedge/shrubs shall be parallel to and not nearer than two feet from the right-of-way line. The required screening shall be designed to allow for free access to the site and sidewalk by pedestrians. Visual breaks, no more than five feet in width, shall be provided every thirty feet within evergreen hedges abutting public right-of-ways.

Response: The landscaping is provided on the perimeter as much as possible within the existing site area, as shown on the Landscaping Plan included with this request.

C. Parking Area/Building Buffer. Parking areas shall be separated from the exterior wall of a structure, exclusive of pedestrian entranceways or loading areas, by one of the following:

1. Minimum five-foot wide landscaped planter strip (excluding areas for pedestrian connection) abutting either side of a parking lot sidewalk with:

   a. Trees spaced a maximum of thirty-five feet apart;

   b. Ground cover such as wild flowers, spaced a maximum of sixteen-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and

   c. An evergreen hedge of thirty to forty-two inches or shrubs placed no more than four feet apart on average; or

2. Seven-foot sidewalks with shade trees spaced a maximum of thirty-five feet apart in three-foot by five-foot tree wells.

Response: The parking area buffering is shown within the Landscaping Plans.

D. Interior Parking Lot Landscaping. Surface parking lots shall have a minimum ten percent of the interior of the gross area of the parking lot devoted to landscaping to improve the water quality, reduce storm water runoff, and provide pavement shade. Interior parking lot landscaping shall not be counted toward the fifteen percent minimum total site landscaping required by Section 17.62.050(1) unless otherwise permitted by the dimensional standards of the underlying zone district. Pedestrian walkways or any impervious surface in the landscaped areas are not to be counted in the percentage. Interior parking lot landscaping shall include:

a. A minimum of one tree per six parking spaces.

b. Ground cover, such as wild flowers, spaced a maximum of sixteen-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.

c. Shrubs spaced no more than four feet apart on average.

d. No more than eight contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips shall be provided between rows of parking shall be a minimum of six feet in width and a minimum of ten feet in length.

e. Pedestrian walkways shall have shade trees spaced a maximum of every thirty-five feet in a minimum three-foot by five-foot tree wells; or

Trees spaced every thirty-five feet, shrubs spaced no more than four feet apart on average, and ground cover covering one hundred percent of the exposed ground. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.

E. Installation.

1. All landscaping shall be installed according to accepted planting procedures, according to American Nurseryman Standards.

2. The site, soils and proposed irrigation systems shall be appropriate for the healthy and long-term maintenance of the proposed plant species.

3. Certificates of occupancy shall not be issued unless the landscaping requirements have been met or other arrangements have been made and approved by the city, such as the posting of a surety.

Response: ***The applicant has included Landscape Plans, shown on sheets L101 and L102 of the included Preliminary Planset. The plans include the details about tree spacing, ground covers, street trees, and installation details and instructions.***

Chapter 17.54 - SUPPLEMENTAL ZONING REGULATIONS AND EXCEPTIONS

17.54.100 - Fences.

Fence, Setback and Height Limitations.

Response: No new fences, wall or berms are proposed.

Chapter 17.60 - VARIANCES

17.60.020 - Variances—Procedures.

A. A request for a variance shall be initiated by a property owner or authorized agent by filing an application with the city recorder. The application shall be accompanied by a site plan, drawn to scale, showing the dimensions and arrangement of the proposed development. When relevant to the request, building plans may also be required. The application shall note the zoning requirement and the extent of the variance requested. Procedures shall thereafter be held under Chapter 17.50. In addition, the procedures set forth in subsection D. of this section shall apply when applicable.

B. A nonrefundable filing fee, as listed in Section 17.50.[0]80, shall accompany the application for a variance to defray the costs.

C. Before the planning commission may act on a variance, it shall hold a public hearing thereon following procedures as established in Chapter 17.50. A Variance shall address the criteria identified in Section 17.60.030, Variances — Grounds.

Response: The applicant has initiated this request, has paid the appropriate fees, and submitted all of the information required. If additional information is needed as a part of the process, the applicant's representative will provide it to city staff.

D. Minor variances, as defined in subsection E. of this section, shall be processed as a Type II decision, shall be reviewed pursuant to the requirements in Section 17.50.030B., and shall address the criteria identified in Section 17.60.030, Variance — Grounds.

E. For the purposes of this section, minor variances shall be defined as follows:

1. Variances to setback and yard requirements to allow additions to existing buildings so that the additions follow existing building lines;

2. Variances to width, depth and frontage requirements of up to twenty percent;

3. Variances to residential yard/setback requirements of up to twenty-five percent;

4. Variances to nonresidential yard/setback requirements of up to ten percent;

5. Variances to lot area requirements of up to five;

6. Variance to lot coverage requirements of up to twenty-five percent;

7. Variances to the minimum required parking stalls of up to five percent; and

8. Variances to the floor area requirements and minimum required building height in the mixed-use districts. (Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009)

Response: ***The requested variance is for more than 5% of the maximum parking requirement and will be processed as a Type III request.***

17.60.030 - Variance—Grounds.

A variance may be granted only in the event that all of the following conditions exist:

A. That the variance from the requirements is not likely to cause substantial damage to adjacent properties by reducing light, air, safe access or other desirable or necessary qualities otherwise protected by this title;

Response: ***The proposed variance to allow parking in front of the building will not have any effect on the adjacent properties because the building at its location are already existing and have been placed on the property in such a way for some time. No expansion to the building is proposed, so there will be no impact to available light or air to adjacent properties. The variance will provide improved safety to the existing access for the site by re-configuring the parking in the area of the entry.***

B. That the request is the minimum variance that would alleviate the hardship;

Response: ***The requested variance is the minimum necessary to alleviate the problem with parking. The applicant has provided design that allows for the most parking on the site, while still providing attractive landscaping and water quality for the site.***

C. Granting the variance will equal or exceed the purpose of the regulation to be modified.

Response: ***The purpose of the regulation is to provide adequate parking for a prescribed use. The evolved nature of the care facility with a variety of services offered has cause the facility to be rather labor/client intensive, creating a large parking demand. Granting the variance will equal the purpose of the regulation because right now, the available parking for the number of users of the site is not adequate. Currently, users of the site are forced to park in adjacent parking lots of other businesses, which creates a situation of less parking for those businesses and also a liability for them. If there was available street parking in the area, the problem may not be as sever as it is.***

D. Any impacts resulting from the adjustment are mitigated;

Response: ***There are not any impacts to surrounding properties that the adjustment will create, if anything, the impact will be reduced because the staff of the care facility will have safe on-site parking instead of having to find parking off site within parking lots of other businesses across Molalla Avenue or Beaver Creek Road. The adjustment is specifically for parking in front of the building, which is already in place, this proposal will re-configure those spaces.***

E. No practical alternatives have been identified which would accomplish the same purpose and not require a variance; and

Response: ***There are no practical alternatives to the request as the location of the building is determining where parking can be placed, which is alongside and if front of the building, where there is already existing parking and the driveways onto Molalla Avenue. It is not practical to re-locate the building.***

F. The variance conforms to the comprehensive plan and the intent of the ordinance being varied. (Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009)

Response: ***There is no proposed change to the current use on the site, which is in compliance with the Comprehensive Plan and the General Commercial zoning.***

Chapter 17.62 - SITE PLAN AND DESIGN REVIEW

17.62.015 - Modifications that will better meet design review requirements.

The review body may consider modification of site-related development standards. These modifications are done as part of design review and are not required to go through the Variance process pursuant to section 17.60.020. Adjustments to use-related development standards (such as floor area ratios, intensity of use, size of the use, number of units, or concentration of uses) are required to go through the Variance process pursuant to section 17.60.020. Modifications that are denied through design review may be requested as Variance through the Variance process pursuant to section 17.60.020. The review body may approve requested modifications if it finds that the applicant has shown that the following approval criteria are met:

A. The modification will result in a development that better meets design guidelines; and

Response: ***The modification will result in a development that better meets the design for the particular application because it will allow for adequate and safe parking for the assisted care facility's staff and for the visitors to the site. Currently, there is not enough parking, particularly in the times of staff changes when there is over-lap in staff to maintain continual care for their patience, which generally have a 24 hour a day continual care need.***

B. The modification meets the intent of the standard. On balance, the proposal will be consistent with the purpose of the standard for which a modification is requested. (Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

Response: The intent of the standard is to provide adequate parking for the number of patients in a care facility.

The type of care provided at this particular facility is for generally more active people who are in rehabilitation recovery and are not in permeant long term care. The clientele of the facility also receives more visitors than a standard long term care facility and therefore additional parking is needed for visitors who generally come in the evening and the weekend. There are no on-street parking spaces available within a mile of the site and therefore there are no safe parking spaces when there are times of over-flow from staff change or when there are several visitors at the same time.

17.62.020 - Preapplication conference.

Prior to filing for site plan and design review approval, the applicant shall confer with the community development director pursuant to Section 17.50.030. The community development director shall identify and explain the relevant review procedures and standards. (Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009)

Response: The applicant attended a Pre-Application conference with the city on April 3rd, 2018, notes from the conference are included within the appendices of this request.

17.62.030 - When required.

Site plan and design review shall be required for all development of real property in all zones except the R-10, R-8, R-6, R-5 and R-3.5 zoning districts, unless otherwise provided for by this title or as a condition of approval of a permit. Site plan and design review shall also apply to all conditional uses, cottage housing development, multi-family and non-residential uses in all zones. No building permit or other permit authorization for development shall be issued prior to site plan and design review approval. Parking lots and parking areas accessory to uses regulated by this chapter also shall require site plan and design review approval. Site plan and design review shall not alter the type and category of uses permitted in zoning districts.

Response: Full preliminary plans have been provided for the Site Plan review.

17.62.040 - Plans required.

A complete application for site plan and design review shall be submitted. Except as otherwise in subsection I of this section, the application shall include the following plans and information:

A. A site plan or plans, to scale, containing the following:

1. Vicinity information showing streets and access points, pedestrian and bicycle pathways, transit stops and utility locations;

2. The site size, dimensions, and zoning, including dimensions and gross area of each lot or parcel and tax lot and assessor map designations for the proposed site and immediately adjoining properties;

3. Contour lines at two-foot contour intervals for grades zero to ten percent, and five-foot intervals for grades over ten percent;

4. The location of natural hazard areas on and within one hundred feet of the boundaries of the site, including:

a. Areas indicated on floodplain maps as being within the one hundred-year floodplain,

b. Unstable slopes, as defined in Section 17.44.020,

c. Areas identified on the seismic conditions map in the comprehensive plan as subject to earthquake and seismic conditions;

Response: Complete plans showing items required by 1-4 above are included with this request.

5. The location of natural resource areas on and within one hundred feet of the boundaries of the site, including fish and wildlife habitat, existing trees (six inches or greater in caliper measured four feet above ground level), wetlands, streams, natural areas, wooded areas, areas of significant trees or vegetation, and areas designated as being within the natural resources overlay district;

Response: There are no natural resource areas on or within 100 feet of the site, the area is entirely developed with mostly retail and commercial development.

6. The location of inventoried historic or cultural resources on and within one hundred feet of the boundaries of the site;

Response: There are no historic or cultural resources on or within 100 feet of the site.

7. The location, dimensions, and setback distances of all existing permanent structures, improvements and utilities on or within twenty-five feet of the site, and the current or proposed uses of the structures;

8. The location, dimensions, square footage, building orientation and setback distances of proposed structures, improvements and utilities, and the proposed uses of the structures by square footage;

9. The location, dimension and names, as appropriate, of all existing and platted streets, other public ways, sidewalks, bike routes and bikeways, pedestrian/bicycle accessways and other pedestrian and bicycle ways, transit street and facilities, neighborhood activity centers, and easements on and within two hundred fifty feet of the boundaries of the site;

10. The location, dimension and names, as appropriate, of all proposed streets, other public ways, sidewalks, bike routes and bikeways, pedestrian/bicycle accessways and other pedestrian and bicycle ways, transit streets and facilities, neighborhood activity centers, and easements on and within two hundred fifty feet of the boundaries of the site;

11. All parking, circulation, loading and servicing areas, including the locations of all carpool, vanpool and bicycle parking spaces as required in Chapter 52 of this title;

12. Site access points for automobiles, pedestrians, bicycles and transit;

13. On-site pedestrian and bicycle circulation;

Response: Items as required by 8 – 13 above are included within the Preliminary Planset.

14. Outdoor common areas proposed as open space;

Response: No outdoor common areas or open space are proposed.

15. Total impervious surface created (including buildings and hard ground surfaces).

Response: Impervious areas are detailed in the plans and also the included Storm Drainage Report.

16. The proposed location, dimensions and materials of fences and walls.

Response: No fences or walls are proposed. Existing fencing is shown on the plans.

B. A landscaping plan, drawn to scale, showing the location and types of existing trees (six inches or greater in caliper measured four feet above ground level) and vegetation proposed to be removed and to be retained on the site, the location and design of landscaped areas, the varieties, sizes and spacings of trees and plant materials to be planted on the site, other pertinent landscape features, and irrigation systems required to maintain plant materials.

Response: Landscaping Plans are included with this request.

C. Architectural drawings or sketches, drawn to scale and showing floor plans, elevations accurately reflected to grade, and exterior materials of all proposed structures and other improvements as they will appear on completion of construction.

D. A materials board, no larger size than eleven inches by seventeen inches clearly depicting all building materials with specifications as to type, color and texture of exterior materials of proposed structures. An electronic version may be accepted as an alternative if approved by the community development director.

Response: ***No change to the building are prosed, C. and D., above are not applicable to this request.***

E. An erosion/sedimentation control plan, in accordance with the requirements of Chapter 17.47 and the Public Works Erosion and Sediment Control Standards, and a drainage plan developed in accordance with city drainage master plan requirements, Chapter 13.12 and the Public Works Stormwater and Grading Design Standards. The drainage plan shall identify the location of drainage patterns and drainage courses on and within one hundred feet of the boundaries of the site. Where development is proposed within an identified hazard area, these plans shall reflect concerns identified in the hydrological/geological/geotechnical development impact statement.

Response: ***An EC Plan is included in the Preliminary Planset.***

F. The legal description of the site.

Response: ***The site description is within the title block of the Preliminary Plans.***

G. An exterior lighting plan, drawn to scale, showing type, height, and area of illumination.

Response: ***The existing lighting for the site will be maintained, which is lighting attached to the existing building and yard lighting adjacent to the parking lot. No new lighting is proposed. If additional lighting is required by the city, the applicant will comply with any condition of approval imposed by the city in that regard.***

H. Archeological Monitoring Recommendation. For all projects that will involve ground disturbance, the applicant shall provide:

I. Such special studies or reports as the community development director may require to obtain information to ensure that the proposed development does not adversely affect the surrounding community or identified natural resource areas or create hazardous conditions for persons or improvements on the site. The community development director shall require an applicant to submit one or more development impact statements, as described in Section 16.12.050, upon determination that (1) there is a reasonable likelihood that traffic safety or capacity improvements may be required; (2) the proposal could have significant adverse impacts on identified natural resource areas, including areas designated as being within the natural resources overlay district; or (3) the proposal would be located on or could have significant adverse impacts on natural hazard areas, including the geologic hazard and flood plain overlay districts. The community development director shall determine which types of development impact statements are necessary and provide written reasons for requiring the statement(s). The development impact statements shall include the information described in Sections 16.12.070, 16.12.080, and 16.12.120 [and this Section] 17.62.040.

J. The community development director may waive the submission of information for specific requirements of this section or may require information in addition to that required by a specific provision of this section, as follows:

Response: ***Per the Pre-Application Meeting with the city, no Archeological Study was needed, I. and J., above, do not apply to this request.***

K. If the applicant has not already done so as some other part of the land use review process, the applicant shall submit an erosion control plan that complies with the applicable requirements of Chapter 17.74 of this code.

Response: ***Erosion Control is a part of the development plans and a final EC plan will be provided for final permitting for the site construction.***

17.62.065 - Outdoor lighting.

A. Purpose. The general purpose of this section is to require outdoor lighting that is adequate for safety and convenience; in scale with the activity to be illuminated and its surroundings; directed to the surface or activity to be illuminated; and designed to clearly render people and objects and contribute to a pleasant nighttime environment. Additional specific purposes are to:

1. Provide safety and personal security as well as convenience and utility in areas of public use or traverse, for uses where there is outdoor public activity during hours of darkness;

Response: ***The applicant proposes to retain the existing lighting on the site, which is primarily attached to the building and within the portico at the front of the building.***

There is a lot of public street lighting in the area that adds to the available lighting for the site and the current lighting is adequate to serve the site. Since there are no changes to the building proposed, the hope is that the lighting can be retained as well.

2. Control glare and excessive brightness to improve visual performance, allow better visibility with relatively less light, and protect residents from nuisance and discomfort;

Response: ***The existing lighting does not create excessive brightness or glare onto adjacent properties.***

3. Control trespass light onto neighboring properties to protect inhabitants from the consequences of stray light shining in inhabitants' eyes or onto neighboring properties;

Response: ***The existing lighting does not trespass light onto the adjacent properties, which are all commercial in use.***

4. Result in cost and energy savings to establishments by carefully directing light at the surface area or activity to be illuminated, using only the amount of light necessary; and

Response: ***The existing lighting has already been positioned toward the walkway and surface areas of the parking lot, using only the light needed after dark.***

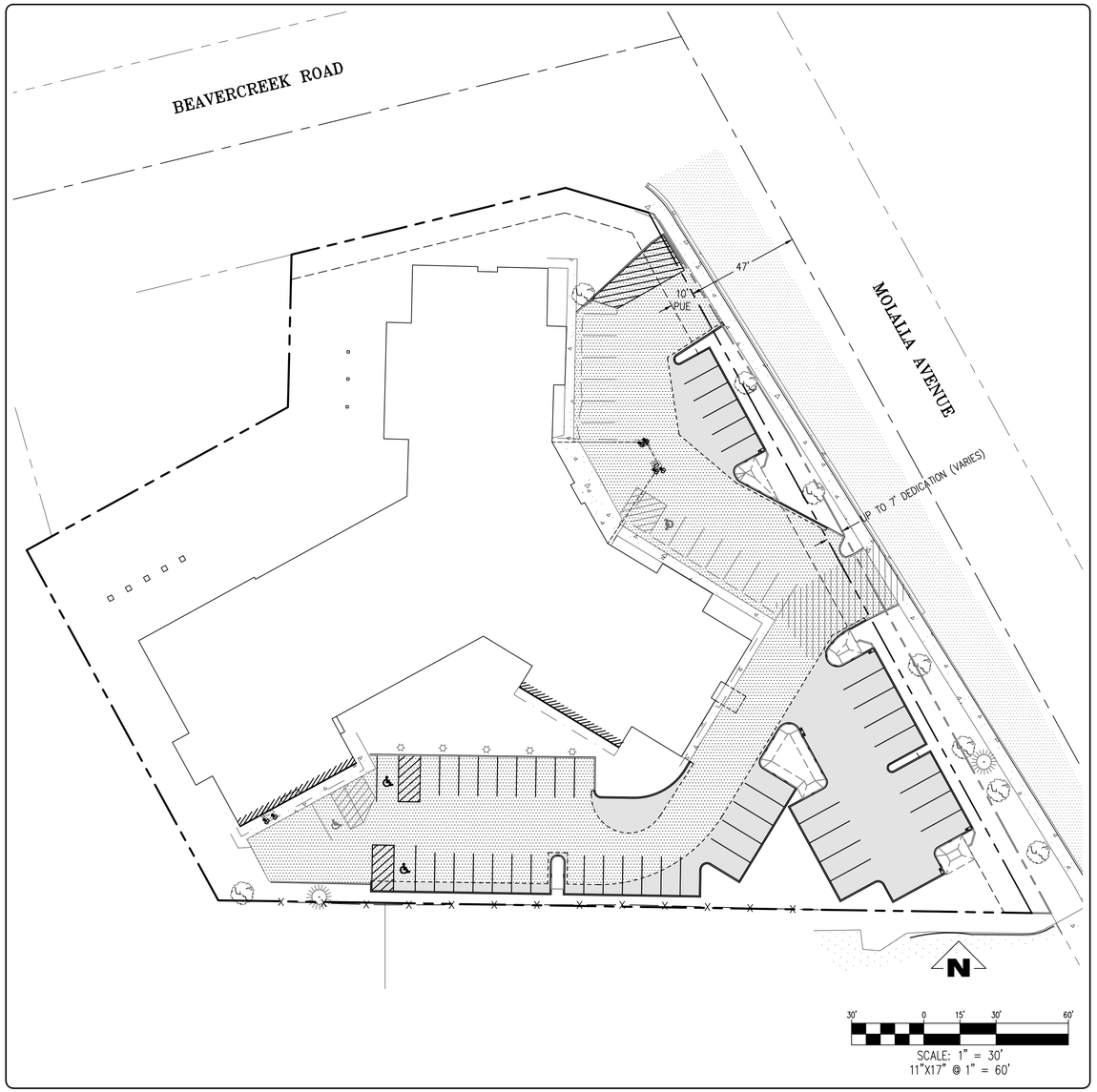
5. Control light pollution to minimize the negative effects of misdirected light and recapture views to the night sky.

Response: ***The existing lighting is the minimum needed for safe movement in the parking lot after dark, limiting the negative effect of light pollution.***

#END#

1680 MOLALLA AVENUE (PARKING LOT EXPANSION)

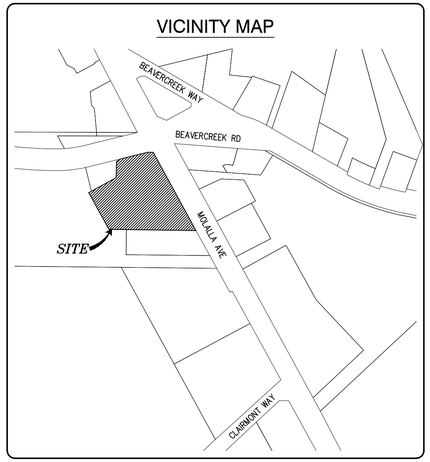
S.E. 1/4, N.W 1/4, SECTION 5, T.3S., R.2E., W.M.,
CITY OF LAKE OSWEGO, CLACKAMAS COUNTY, OREGON



LEGEND

- BOUNDARY LINE
- ADJACENT/ADJOINING LOT LINE
- CENTER LINE ROW
- EASEMENT
- 104 EXISTING 1' CONTOUR LINE
- 105 EXISTING 5' CONTOUR LINE
- EXISTING TREE
- EXISTING CATCH BASIN
- EXISTING STORM SEWER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING WATER VUALT
- EXISTING WATER VALVE
- EXISTING IRRIGATION VALVE
- EXISTING UTILITY POLE
- EXISTING STREET LIGHT
- G EXISTING GAS METER
- B EXISTING BOLLARD
- EXISTING SIGN
- DS EXISTING DOWN SPOUT
- EXISTING HANDICAP PARKING
- XOH EXISTING OVERHEAD LINE
- XSS EXISTING SANITARY SEWER LINE
- XSD EXISTING STORM SEWER LINE
- XW EXISTING WATER LINE
- XG XG EXISTING GAS LINE
- EXISTING FENCELINE

VICINITY MAP



DRAWING INDEX:

SITE INFORMATION:

SITE ADDRESS:	1680 MOLALLA AVENUE
TAX MAPS:	T3S R2E SEC. 05C
TAX LOTS:	301
GROSS AREA:	78,803 SF (AFTER DEDICATION)
ZONING:	C

APPLICANT:

MARQUIS COMPANIES
4560 SE INTERNATIONAL WAY #100
MILWAUKIE, OREGON 97222
CONTACT: SCOTT MILLER
971-206-5200 | TEL

ENGINEER:

EMERIO DESIGN, LLC
6445 SW FALLBROOK PL, SUITE 100
BEAVERTON, OR 97008
CONTACT: ERIC EVANS, PE
503-746-8812 | TEL
503-639-9592 | FAX

SURVEYOR:

EMERIO DESIGN, LLC
6445 SW FALLBROOK PL, SUITE 100
BEAVERTON, OR 97008
CONTACT: KING PHELPS, PLS
503-746-8812 | TEL
503-639-9592 | FAX

BENCH MARK INFORMATION

THE DATUM FOR THIS SURVEY IS BASED UPON USGS BM D212 IN CONCRETE WALL AT OREGON CITY HALL.
ELEVATION=497.73 USGS.

1680 MOLALLA AVENUE
TAX MAP T3S R2E 05C
TAX LOT 00301
CITY OF OREGON CITY, OREGON

COVERSHEET

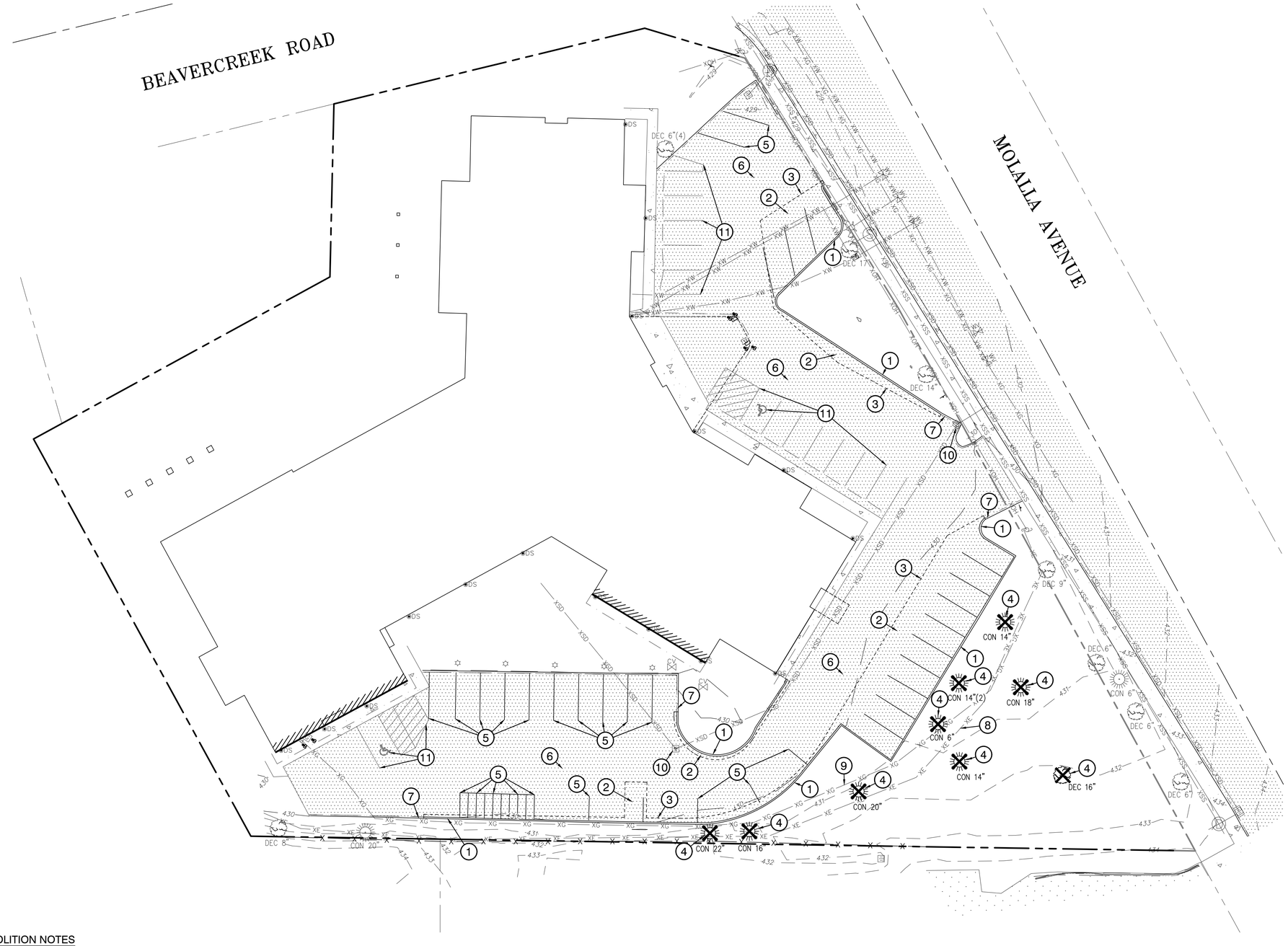
REVISIONS

NO.	DATE	DESCRIPTION

EMERIO Design
6445 SW FALLBROOK PLACE, SUITE 100
BEAVERTON, OREGON 97008
TEL: (503) 746-8812
FAX: (503) 639-9592
www.emeriodesign.com

SHEET 1 OF 5

FILE:P:\1086-020 Marquis Oregon City Parking Lot Expansion\dwg\plan\1086-020_Dtcovr, Layout: 1 COVERSHEET, Plot Date: 9/18/2018 7:18 AM, by: Kyung Hon



LEGEND

- BOUNDARY LINE
- ADJACENT/ADJOINING LOT LINE
- CENTER LINE ROW
- EASEMENT
- EXISTING 1' CONTOUR LINE
- EXISTING 5' CONTOUR LINE
- EXISTING TREE
- EXISTING CATCH BASIN
- EXISTING STORM SEWER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
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- EXISTING DOWN SPOUT
- EXISTING HANDICAP PARKING
- EXISTING OVERHEAD LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM SEWER LINE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING FENCELINE

DEMOLITION NOTES

1. EXISTING CURB TO BE REMOVED
2. EXISTING AC TO BE REMOVED
3. SAWCUT LINE
4. EXISTING TREE TO BE REMOVED
5. EXISTING STRIPING TO BE REMOVED
6. EXISTING AC PAVEMENT TO REMAIN AND BE PROTECTED DURING DEMOLITION
7. EXISTING CURB TO REMAIN AND BE PROTECTED DURING DEMOLITION
8. EXISTING ELECTRIC LINE TO REMAIN BE PROTECTED DURING DEMOLITION
9. EXISTING GAS LINE TO REMAIN AND BE PROTECTED DURING DEMOLITION
10. EXISTING STORM CATCH BASIN TO REMAIN AND BE PROTECTED DURING DEMOLITION
11. EXISTING STRIPING TO REMAIN AND BE PROTECTED DURING DEMOLITION

1680 MOLALLA AVENUE
TAX MAP T3S R2E 05C
TAX LOT 00301
CITY OF OREGON CITY, OREGON

EXISTING CONDITIONS AND DEMOLITION PLAN

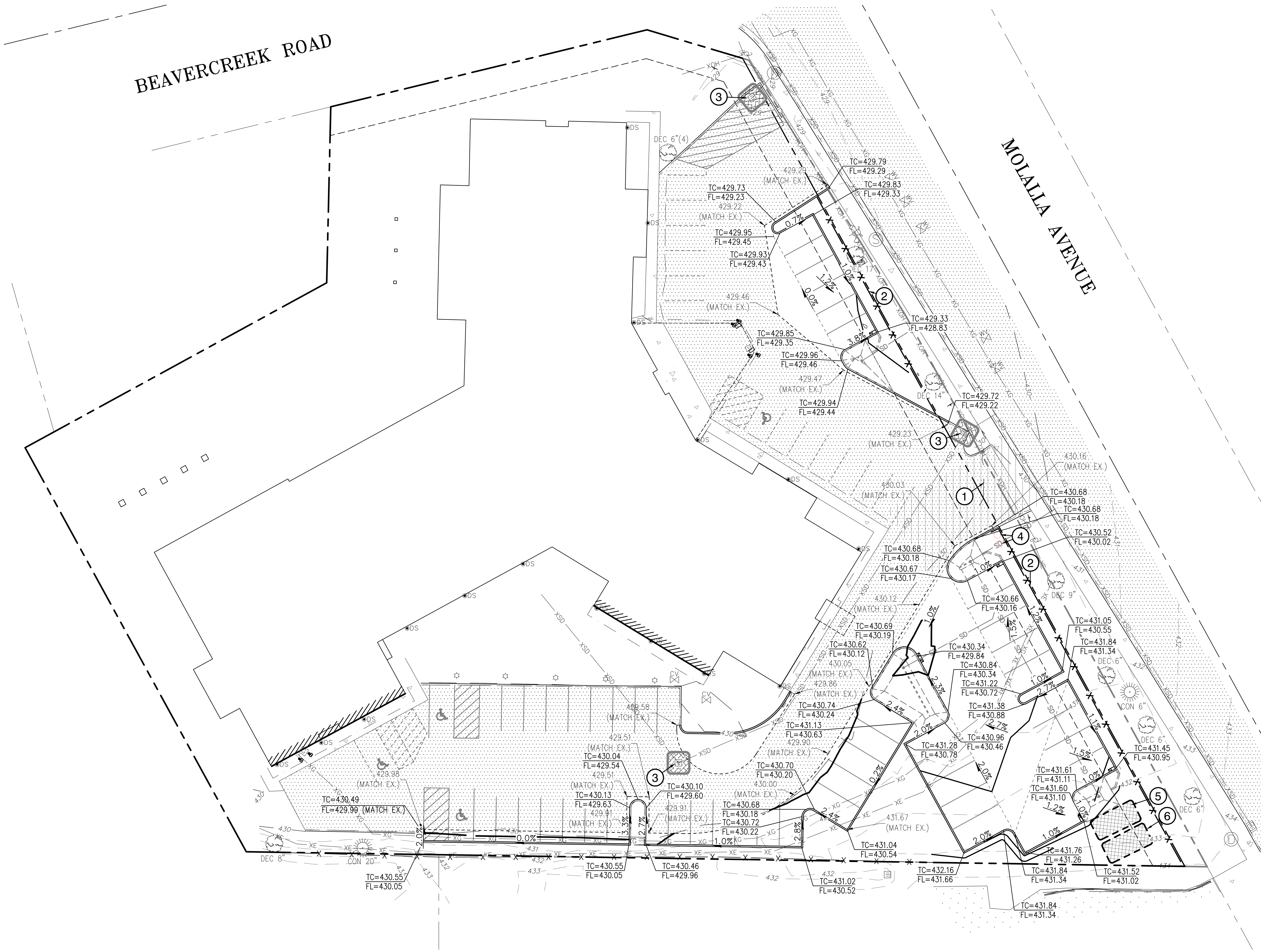
REVISIONS

NO.	DATE	DESCRIPTION

EMERIO Design
6445 SW FALLBROOK PLACE, SUITE 100
BEAVERTON, OREGON 97008
TEL: (503) 430-8812
FAX: (503) 430-8832
www.emeriodesign.com

SHEET 2 OF 5

FILE:P:\1086-020 Marquis Oregon City Parking Lot Expansion\dwg\plan\1086-020_02xcon, Layout: 2 EXISTING CONDITIONS AND DEMOLITION PLAN, Plot Date: 9/18/2018 7:18 AM, by: Kyung Han



LEGEND

- BOUNDARY LINE
- ADJACENT/ADJOINING LOT LINE
- CENTER LINE ROW
- XSD — EXISTING STORM DRAIN LINE
- DIRECTION OF SURFACE DRAINAGE
- —X——X— PROPOSED SEDIMENT FENCE

WET WEATHER EROSION PREVENTION REQUIREMENTS

ALL STOCKPILED MATERIAL MUST BE FULLY COVERED WITH SECURED PLASTIC SHEETING AND ISOLATED WITH SILT FENCING OR CHECK DAM/WATTLES AT THE TOE OF THE SLOPE UNLESS BEING WORKED.

ALL EXPOSED/DISTURBED SOIL MUST BE COVERED AT THE END OF EACH WORK DAY. APPROVED GROUND COVER INCLUDES 3"MINIMUM DEPTH OF STRAW, COMPOST MULCH; WOOD CHIPS, OR GRAVEL. PLASTIC SHEETING, OVERLAPPED AND SECURELY STAKED, MAY ALSO BE USED AS A GROUND COVER.

ALL VEHICLES MUST BE PARKED ON THE GRAVEL CONSTRUCTION ENTRANCE OR DRIVEWAY, OR OTHER GRAVELED PARKING PADS. DO NOT PARK VEHICLES ON SOILS PROTECTED WITH APPROVED COVER.

ALL CONCRETE WASH OUT, MORTAR AND WET SAW SLURRY, AND ALL LIQUID WASTE MUST BE DUMPED INTO LEAKPROOF PANS. NO GROUND/PIT DUMPING IS ALLOWED ON ANY SITE-THIS IS A YEAR□ROUND REQUIREMENT.

ALL CONSTRUCTION WASTE, GARBAGE AND DEBRIS MUST BE COLLECTED AT THE END OF EACH WORK DAY AND STORED IN CONTAINERS OR ENCLOSED FACILITIES UNTIL DISPOSED OF-THIS IS A YEAR ROUND REQUIREMENT.

ALL EROSION CONTROL FACILITIES AND PRACTICES DESCRIBED IN YOUR EROSION CONTROL PLAN MUST BE PROPERLY INSTALLED, MONITORED FOR EFFECTIVENESS AND MAINTAINED THROUGHOUT THE PROJECT. IF THE FACILITIES AND PRACTICES IN THE PLAN ARE NOT EFFECTIVE, ADDITIONAL MEASURES MUST BE IMPLEMENTED. INFORMATION REGARDING MAINTENANCE CAN BE FOUND IN THE LAKE OSWEGO CODE, SECTION 52.

INFORMATION REGARDING APPROVED MEASURES AND INSTALLATION PROCEDURES IS CONTAINED IN THE "EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL"(REVISED DECEMBER 2008). YOU CAN OBTAIN A HARD COPY OF THIS MANUAL THROUGH CLEAN WATER SERVICES OR CLACKAMAS COUNTY WATER ENVIRONMENT SERVICES. ALTERNATIVELY, AN ELECTRONIC COPY CAN BE DOWNLOADED FREE OF CHARGE FROM THE CLACKAMAS COUNTY WATER ENVIRONMENT SERVICES WEB SITE.
(HTTP: //WWW.CO.CLACKAMAS.OR.US/WES/INDEX.HTM)

OTHER MEASURES MAY BE REQUIRED BY THE INSPECTOR TO ADDRESS SITE CONDITIONS. ALL MEASURES MUST BE MAINTAINED IN GOOD WORKING ORDER, WITH ALL ACCUMULATIONS OF SEDIMENT REMOVED AS NECESSARY.

TO PRESERVE GROUND COVER, IT'S RECOMMENDED THAT TEMPORARY PLYWOOD, PLANK OR GRAVEL WALKWAYS BE PLACED AROUND THE JOBSITE TO PROVIDE ACCESS TO THE STRUCTURE WITHOUT FURTHER DISTURBING COVERED SOILS.

THE "WET WEATHER REQUIREMENTS"ARE IN ADDITION TO STANDARD EROSION AND SEDIMENT CONTROL REQUIREMENTS. PLEASE SEE THE APPROVED EROSION CONTROL PLAN, ATTACHED "ADDITIONAL EROSION AND SEDIMENT CONTROL NOTES"; "WET WEATHER MEMO"AND DETAILS FOR COMPLETE REQUIREMENTS.

ALL CONTRACTORS, SUBCONTRACTORS, PROPERTY OWNERS AND ANYONE WORKING ON THE CONSTRUCTION SITE IS EXPECTED TO KNOW LOCAL, STATE AND FEDERAL REQUIREMENTS RELATED TO EROSION AND SEDIMENT CONTROL AND WATER QUALITY. ALL REGULATIONS MUST BE ADHERED TO AT ALL TIMES.

EROSION CONTROL CONSTRCUTION NOTES

1. USE EXISTING DRIVEWAY AS CONSTRUCTION ENTRANCE
2. SILT SEDIMENT FENCE
3. BIO-BAG FOR CATCH BASIN
4. GARAGE CONTAINERS
5. STOCK PILE (COVER W/ PLASTIC OCT 1 – MAY 31)
6. TEMPORARY DIGOUT STOCK PILE (COVER W/ PLASTIC OCT 1 – MAY 31)

NOTES:

LEAK-PROOF GARBAGE CONTAINERS ARE REQUIRED ON ALL CONSTRUCTION SITES. GARBAGE, LITTER AND DEBRIS SHOULD BE COLLECTED AND CONTAINED AT THE END OF EACH WORK DAY.

ALL CONCRETE WASH OUT, MORTAR AND TILE SAW SLURRY MUST BE CONTAINED IN LEAK-PROOF PANS; NO GROUND DUMPING IS PERMITTED.

WET WEATHER SEASON IS OCTOBER 1 THROUGH MAY 31. ALL DISTURBED SOILS MUST BE COVERED WITH 3" OF APPROVED COVER AT THE END OF EACH WORK DAY; ALL STOCKPILES MUST BE FULLY COVERED WITH SECURED PLASTIC SHEETING UNLESS ACTIVELY BEING WORKED; ADDITIONAL MEASURES AS REQUIRED.

ALL MEASURES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING ALL MEASURES DAILY AND ADDING OR ADJUSTING MEASURES AS NEEDED TO REDUCE EROSION AND CONTAIN SEDIMENT.

ALL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED. REPAIR OR REPLACE DAMAGED MEASURES WITHIN 24 HOURS.

1680 MOLALLA AVENUE

TAX MAP T3S R2E 05C
TAX LOT 00301
CITY OF OREGON CITY, OREGON

PRELIMINARY GRADING &
EROSION CONTROL PLAN

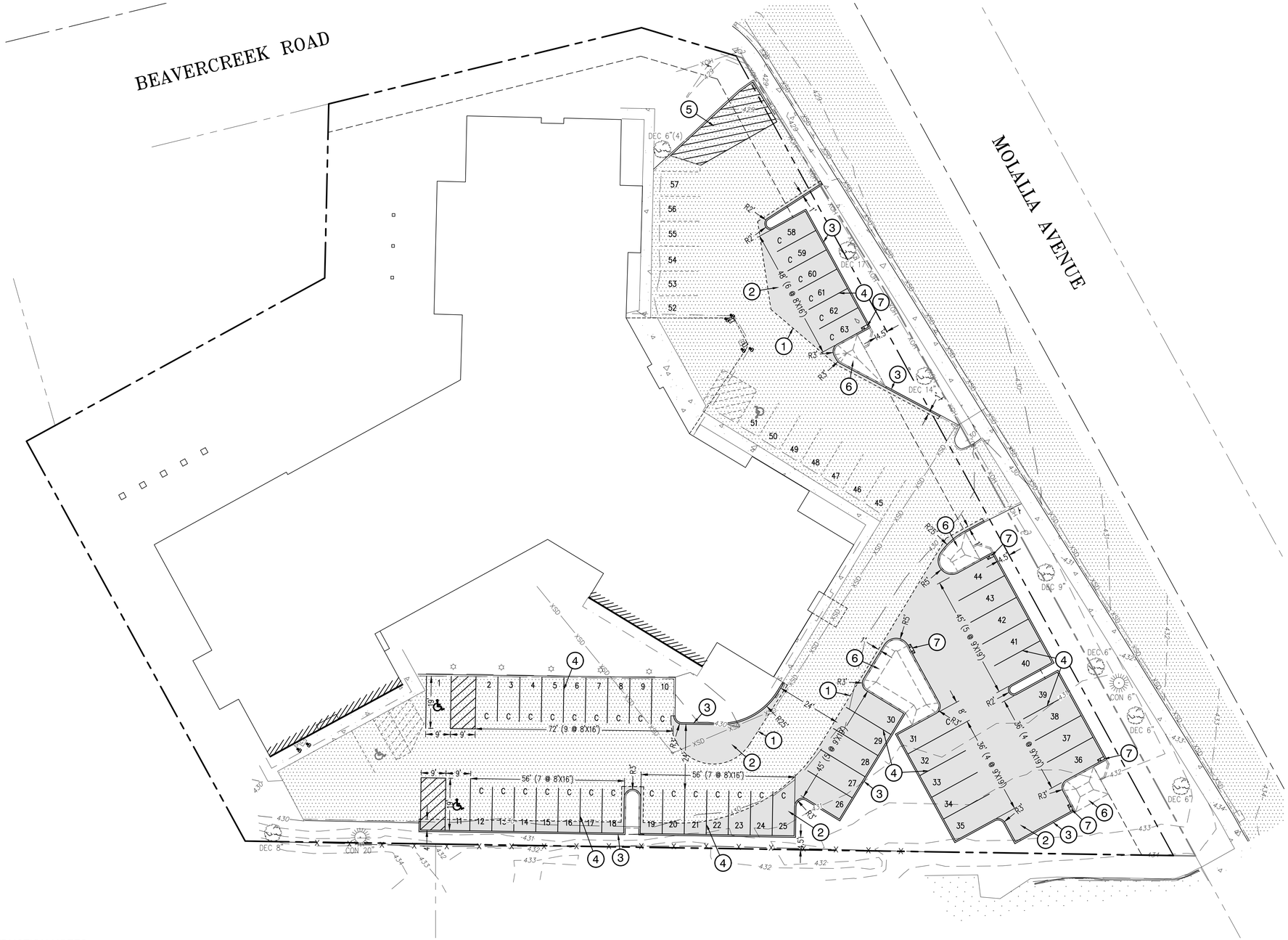
REVISIONS

NO.	DATE	DESCRIPTION

EMERIO Design
6445 SW FALLBROOK PLACE, SUITE 100
BEAVERTON, OREGON 97008
TEL: (503) 746-8812
FAX: (503) 639-9592
www.emeriodesign.com

SHEET 3 OF 5

FILE: P:\086-020 Marquis Oregon City Parking Lot Expansion\dwg\plan\086-020_03pgrd, Layout: 3 PRELIMINARY GRADING & EROSION CONTROL PLAN, Plot Date: 9/18/2018 8:09 AM, by: Kyung Han



CONSTRUCTION NOTES

1. SAWCUT LINE
2. PROPOSED AC PAVEMENT
3. PROPOSED 6" STANDARD CURB
4. PROPOSED PARKING STRIPING
5. PROPOSED SERVICE PARKING/LOADING ZONE STRIPING
6. PROPOSED FILTRATION RAIN GARDEN
7. PROPOSED CURB CUT SCUPPER

1680 MOLALLA AVENUE
TAX MAP T3S R2E 05C
TAX LOT 00301
CITY OF OREGON CITY, OREGON

PRELIMINARY SITE PLAN

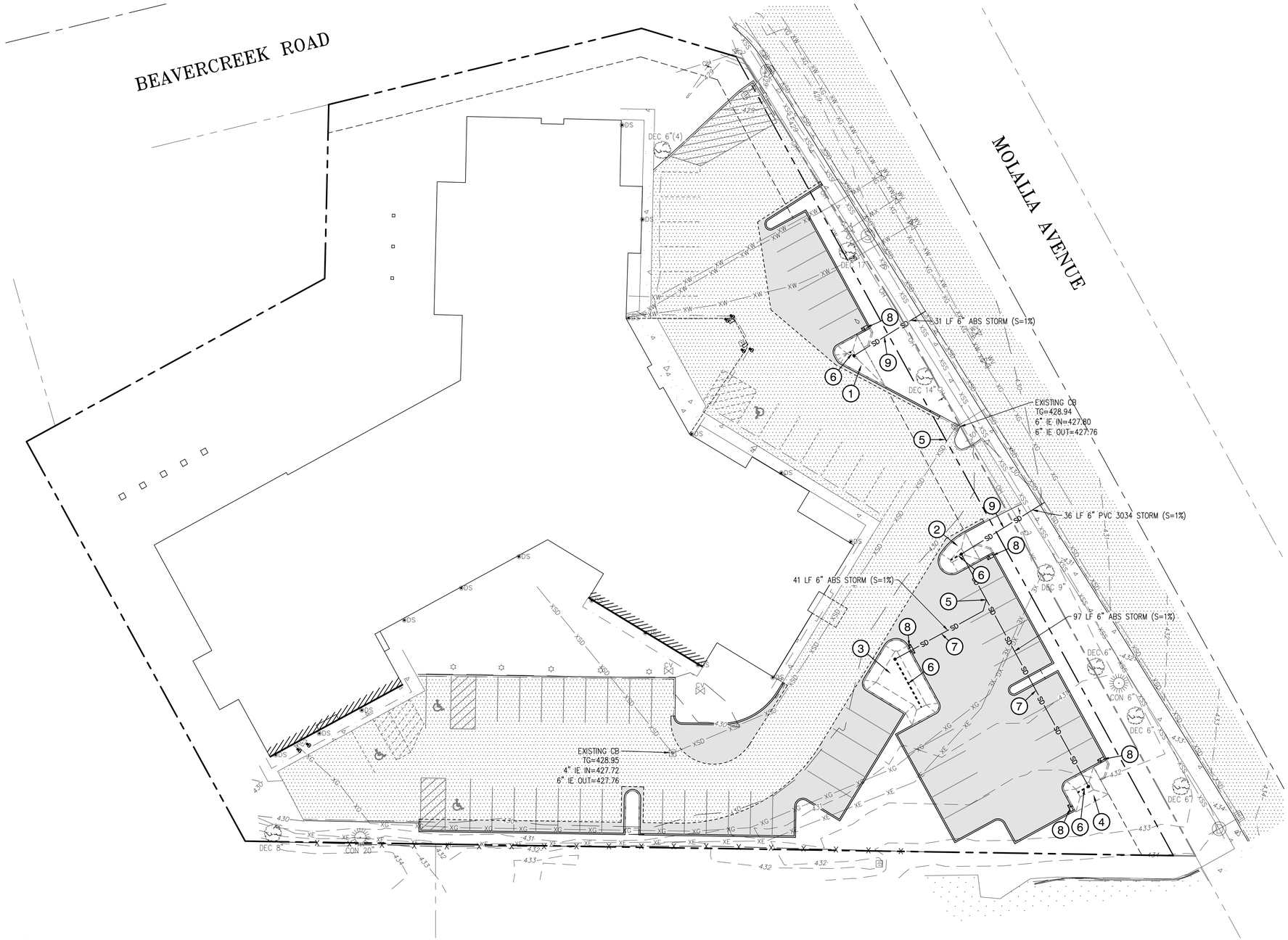
REVISIONS

NO.	DATE	DESCRIPTION

EMERIO Design
6445 SW FALLBROOK PLACE, SUITE 100
BEAVERTON, OREGON 97008
TEL: (503) 746-8812
FAX: (503) 297-1592
www.emeriodesign.com

SHEET 4 OF 5

FILE:P:\086-020 Marquis Oregon City Parking Lot Expansion\dwg\plan\086-020_04psit, Layout: 4 PREMINARY SITE PLAN, Plot Date: 9/18/2018 7:19 AM, by: Kyung Han



N

20' 0 10' 20' 40'

SCALE: 1" = 20'
11"X17" @ 1" = 40'

LEGEND

- BOUNDARY LINE
- ADJACENT/ADJOINING LOT LINE
- CENTER LINE ROW
- EASEMENT
- EXISTING 1' CONTOUR LINE
- EXISTING 5' CONTOUR LINE
- EXISTING TREE
- EXISTING CATCH BASIN
- EXISTING STORM SEWER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING WATER VUALT
- EXISTING WATER VALVE
- EXISTING IRRIGATION VALVE
- EXISTING UTILITY POLE
- EXISTING STREET LIGHT
- EXISTING GAS METER
- EXISTING BOLLARD
- EXISTING SIGN
- EXISTING DOWN SPOUT
- EXISTING HANDICAP PARKING
- EXISTING OVERHEAD LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM SEWER LINE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING FENCELINE

CONSTRUCTION NOTES

1. PROPOSED FILTRATION RAIN GARDEN (137 SF)
2. PROPOSED FILTRATION RAIN GARDEN (130 SF)
3. PROPOSED FILTRATION RAIN GARDEN (453 SF)
4. PROPOSED FILTRATION RAIN GARDEN (144 SF)
5. PROPOSED 6" WYE
6. PROPOSED 6" ABS PERFORATED PIPE
7. PROPOSED 6" ABS SOLID PIPE (S=1% MINIMUM)
8. PROPOSED CURB CUT SCUPPER
9. PROPOSED 6" PVC 3034 STORM PIPE

1680 MOLALLA AVENUE

TAX MAP T3S R2E 05C
TAX LOT 00301
CITY OF OREGON CITY, OREGON

PRELIMINARY UTILITY PLAN

REVISIONS

NO.	DATE	DESCRIPTION

EMERIO Design
6445 SW FALLBROOK PLACE, SUITE 100
BEAVERTON, OREGON 97008
TEL: (503) 746-8812
FAX: (503) 746-8813
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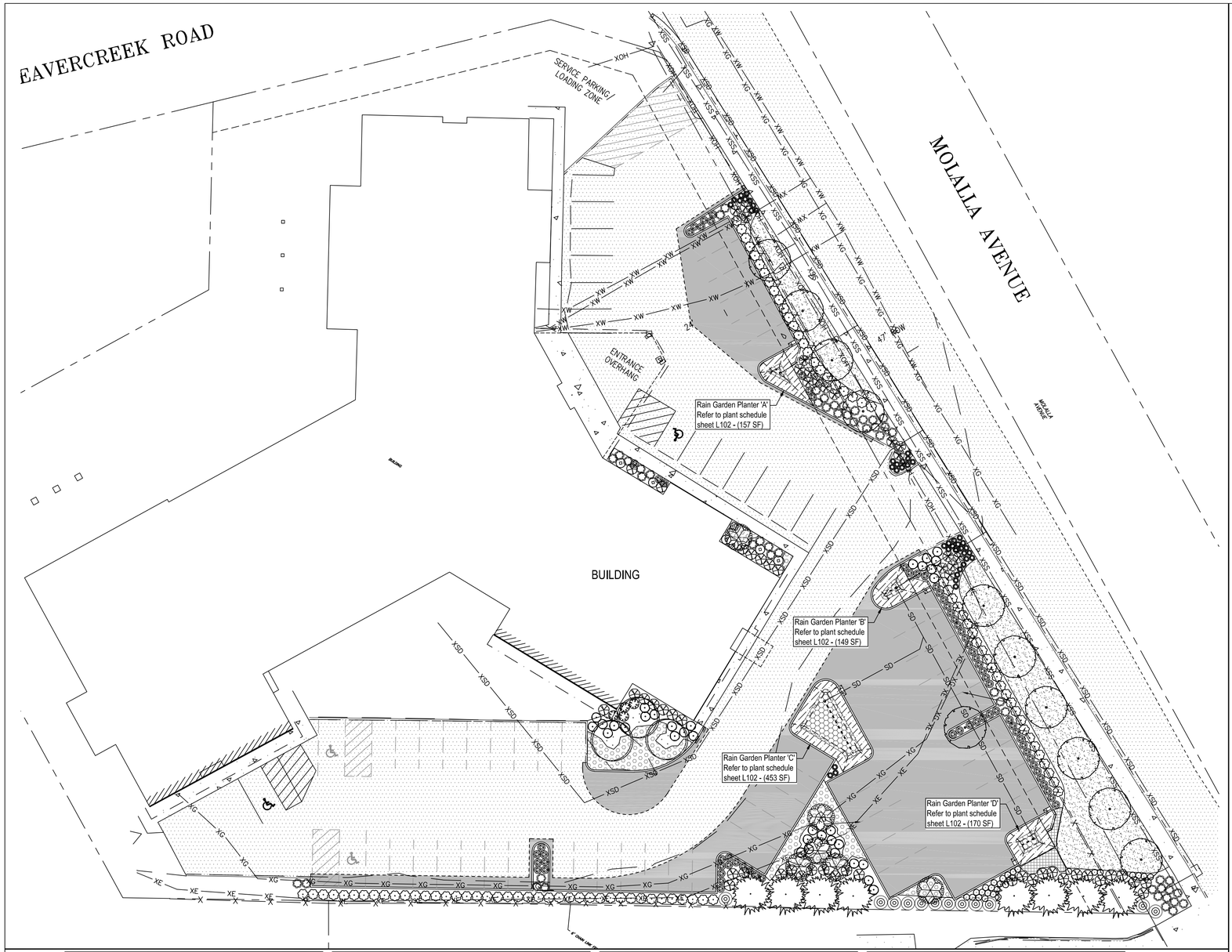
SHEET 5 OF 5

FILE:P:\086-020 Marquis Oregon City Parking Lot Expansion\dwg\plan\086-020_C5putil, Layout: 5 PRELIMINARY UTILITY PLAN, Plot Date: 9/18/2018 7:19 AM, by: Kyung Han



PLANT MATERIALS LISTING:

SYM	Botanical name / Common Name	QTY.	SIZE	CONDITION	REMARKS
	TREES				
	Acer palmatum 'Sangokaku' Coral Bark Maple	3	5-6'	B&B	Multi-stem
	Acer circinatum Vine Maple	6	5-6'	B&B	Multi-stem
	x Cupressocyparis leylandii 'Naylors Blue' Naylors Blue Leyland Cypress	8	6-7'	B&B	
	Zelkova 'Green Village' Green Village Zelkova	11	2" Cal.	B&B	
	SHRUBS				
	Euonymus fortunei 'Emerald 'n Gold' Emerald 'n Gold Euonymus	72	1 Gal.	Can	12-15"
	Hemerocallis 'Happy Returns' Happy Returns Daylily	26	1 Gal.	Can	10-12"
	Hydrangea paniculata 'Littlelime' Littlelime Hydrangea	18	5 Gal.	Can	10-12"
	Hydrangea 'Cityline' Dwarf Hydrangea	6	5 Gal.	Can	18-21"
	Prunus lusitanica Portuguese Laurel	12	5 Gal.	Can	18-21"
	Rhododendron 'Anah Kruschke' Anah Kruschke Rhododendron	39	5 Gal.	Can	18-21"
	Rudbeckia fulgida 'Goldsturm' Black Eye Susan	43	1 Gal.	Can	10-12"
	Spiraea x bumalda 'Goldflame' Goldflame Spirea	52	2 Gal.	Can	18-21"
	Syringa pubescens 'Miss Kim' Miss Kim Lilac	4	5 Gal.	Can	18-21"
	Viburnum davidii David Viburnum	34	2 Gal.	Can	12-15"
	Viburnum tinus 'Spring Bouquet' Spring Bouquet Viburnum	90	5 Gal.	Can	12-15"
	GROUND COVER				
	Erica x darleyensis 'Kramers Rote' Kramers Red Winter Heath	25	1 Gal.	Can	24" O.C.
	Polystichum munitum Sword Fern	175	1 Gal.	Can	24" O.C.
	Lawn (seed or hydroseed)	2,550 SF			

APPROXIMATE LANDSCAPE AREA

PLANTING AREA:	6,125 sq.ft.
LAWN AREA:	2,550 sq.ft.
RAIN GARDEN AREA:	929 sq.ft.

NOTES:
1. REFER TO SHEET L103 FOR PLANTING DETAILS AND NOTES.
2. REFER TO SHEET L102 FOR RAIN GARDEN PLANTING LISTING AND PLANTING REQUIREMENTS NOTES.

RAIN GARDEN PLANTER FACILITY 'A'

PLANTING RATES — REFER TO SHEET L103 FOR PLANT LISTING & PLANTING REQUIREMENTS

PLANT TYPE	PLANTING AREA (SQ FT)		PLANTING DENSITY (PER SQ FT)			NUMBER OF PLANTS	NUMBER OF SPECIES
ZONE A	SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 22 SQ FT						
LG. SHRUB / SM. TREE	22	/ 100	X	3	=	1	1
SM. SHRUB	22	/ 100	X	4	=	1	1
GROUND COVER	22	/ 100	X	115	=	25	2
ZONE B	DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 135 SQ FT						
TREE	135	/ 100	X	1	=	1	1
LG. SHRUB / SM. TREE	135	/ 100	X	3	=	4	2
SM. SHRUB	135	/ 100	X	4	=	5	2
GROUND COVER	135	/ 100	X	115	=	155	2

RAIN GARDEN PLANTER FACILITY 'B'

PLANTING RATES — REFER TO SHEET L103 FOR PLANT LISTING & PLANTING REQUIREMENTS

PLANT TYPE	PLANTING AREA (SQ FT)		PLANTING DENSITY (PER SQ FT)			NUMBER OF PLANTS	NUMBER OF SPECIES
ZONE A	SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 30 SQ FT						
LG. SHRUB / SM. TREE	30	/ 100	X	3	=	1	1
SM. SHRUB	30	/ 100	X	4	=	1	1
GROUND COVER	30	/ 100	X	115	=	35	2
ZONE B	DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 119 SQ FT						
TREE	119	/ 100	X	1	=	1	1
LG. SHRUB / SM. TREE	119	/ 100	X	3	=	4	2
SM. SHRUB	119	/ 100	X	4	=	5	2
GROUND COVER	119	/ 100	X	115	=	137	2

RAIN GARDEN PLANTER FACILITY 'C'

PLANTING RATES — REFER TO SHEET L103 FOR PLANT LISTING & PLANTING REQUIREMENTS

PLANT TYPE	PLANTING AREA (SQ FT)		PLANTING DENSITY (PER SQ FT)			NUMBER OF PLANTS	NUMBER OF SPECIES
ZONE A	SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 224 SQ FT						
LG. SHRUB / SM. TREE	224	/ 100	X	3	=	7	1
SM. SHRUB	224	/ 100	X	4	=	9	1
GROUND COVER	224	/ 100	X	115	=	258	2
ZONE B	DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 229 SQ FT						
TREE	229	/ 100	X	1	=	2	1
LG. SHRUB / SM. TREE	229	/ 100	X	3	=	7	2
SM. SHRUB	229	/ 100	X	4	=	9	2
GROUND COVER	229	/ 100	X	115	=	263	2

RAIN GARDEN PLANTER FACILITY 'D'

PLANTING RATES — REFER TO SHEET L103 FOR PLANT LISTING & PLANTING REQUIREMENTS

PLANT TYPE	PLANTING AREA (SQ FT)		PLANTING DENSITY (PER SQ FT)			NUMBER OF PLANTS	NUMBER OF SPECIES
ZONE A	SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 40 SQ FT						
LG. SHRUB / SM. TREE	40	/ 100	X	3	=	1	1
SM. SHRUB	40	/ 100	X	4	=	2	1
GROUND COVER	40	/ 100	X	115	=	46	2
ZONE B	DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 130 SQ FT						
TREE	130	/ 100	X	1	=	1	1
LG. SHRUB / SM. TREE	130	/ 100	X	3	=	4	2
SM. SHRUB	130	/ 100	X	4	=	5	2
GROUND COVER	130	/ 100	X	115	=	150	2

SCALE: 1" = 20'-0"

20' 10' 0' 20' 40'

NOT FOR CONSTRUCTION

MEARS DESIGN GROUP
LANDSCAPE ARCHITECTURE & PLANNING
PO Box 23338 | Portland, Oregon | 97281
Phone: 503.601.4516 | Fax: 503.924.4588

REGISTERED LANDSCAPE ARCHITECT
OREGON
TROY T. MEARS
540
7/21/2003
RENEWAL 6/30/2020

MARQUIS ASSISTED CARE
PARKING LOT EXPANSION
PLANTING PLAN

1680 MOLALLA, OREGON CITY, OREGON

REVISIONS

REV.	DATE	DESCRIPTION
	2/26/2019	Design Changes

SHEET NAME: PLANTING PLAN

DRAWN BY: TAM
CHECKED BY: TAM
ISSUE DATE: 8/9/2018
JOB NO.: 1828

SHEET: L101
OF 3

LISTING FOR RAIN GARDEN FACILITY 'A'

(REFER TO PLANTING DETAILS SHEET L103)

	ZONE A — SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 176 SQ FT Plant Communities	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
LG. Shrub/ Sm. Tree	Douglas spiraea (Spirea douglasii)	1	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	1				
Sm. Shrub	Kelsey Dogwood (Cornus sericea 'Kelseyi')	1	Shrub	1 gal.		Cluster
	Total Small Shrubs	1				
G.C.	Spreading rush (Juncus patens)	13	Herb	Plug	6"	Mass
	Dense Sedge (Carex densa)	12	Herb	Plug	4"	Mass
	Total Groundcover	25				

	ZONE B — DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 176 SQ FT Plant Communities	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
Tree	Vine Maple (Acer circinatum)	1	Tree	1" cal.	1" cal.	Cluster
	Total Trees	1				
LG. Shrub/ Sm. Tree	Red flowering Currant (Ribes sanguimeum)	2	Shrub	1 gal.	30"	Cluster
	Douglas spiraea (Spirea douglasii)	2	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	4				
Sm. Shrub	Oregon Grape (Mahonia aquifolium)	2	Shrub	1 gal.		Cluster
	Kelsey Dogwood (Cornus sericea 'Kelseyi')	3	Shrub	1 gal.		Cluster
	Total Small Shrubs	5				
G.C.	Spreading rush (Juncus patens)	78	Herb	Plug	6"	Mass
	Blue wild rye (Elymus glaucus)	77	Herb	Plug	4"	Mass
	Total Groundcover	155				

LISTING FOR RAIN GARDEN FACILITY 'B'

(REFER TO PLANTING DETAILS SHEET L103)

	ZONE A — SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 176 SQ FT Plant Communities	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
LG. Shrub/ Sm. Tree	Douglas spiraea (Spirea douglasii)	1	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	1				
Sm. Shrub	Kelsey Dogwood (Cornus sericea 'Kelseyi')	1	Shrub	1 gal.		Cluster
	Total Small Shrubs	1				
G.C.	Spreading rush (Juncus patens)	18	Herb	Plug	6"	Mass
	Dense Sedge (Carex densa)	17	Herb	Plug	4"	Mass
	Total Groundcover	35				

	ZONE B — DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 176 SQ FT Plant Communities	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
Tree	Vine Maple (Acer circinatum)	1	Tree	1" cal.	1" cal.	Cluster
	Total Trees	1				
LG. Shrub/ Sm. Tree	Red flowering Currant (Ribes sanguimeum)	2	Shrub	1 gal.	30"	Cluster
	Douglas spiraea (Spirea douglasii)	2	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	4				
Sm. Shrub	Oregon Grape (Mahonia aquifolium)	2	Shrub	1 gal.		Cluster
	Kelsey Dogwood (Cornus sericea 'Kelseyi')	3	Shrub	1 gal.		Cluster
	Total Small Shrubs	5				
G.C.	Spreading rush (Juncus patens)	69	Herb	Plug	6"	Mass
	Blue wild rye (Elymus glaucus)	68	Herb	Plug	4"	Mass
	Total Groundcover	137				

LISTING FOR RAIN GARDEN FACILITY 'C'

(REFER TO PLANTING DETAILS SHEET L103)

	ZONE A — SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 176 SQ FT Plant Communities	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
LG. Shrub/ Sm. Tree	Douglas spiraea (Spirea douglasii)	7	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	7				
Sm. Shrub	Kelsey Dogwood (Cornus sericea 'Kelseyi')	9	Shrub	1 gal.		Cluster
	Total Small Shrubs	9				
G.C.	Spreading rush (Juncus patens)	129	Herb	Plug	6"	Mass
	Dense Sedge (Carex densa)	129	Herb	Plug	4"	Mass
	Total Groundcover	258				

	ZONE B — DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 176 SQ FT Plant Communities	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
Tree	Vine Maple (Acer circinatum)	2	Tree	1" cal.	1" cal.	Cluster
	Total Trees	2				
LG. Shrub/ Sm. Tree	Red flowering Currant (Ribes sanguimeum)	4	Shrub	1 gal.	30"	Cluster
	Douglas spiraea (Spirea douglasii)	3	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	7				
Sm. Shrub	Oregon Grape (Mahonia aquifolium)	5	Shrub	1 gal.		Cluster
	Kelsey Dogwood (Cornus sericea 'Kelseyi')	4	Shrub	1 gal.		Cluster
	Total Small Shrubs	9				
G.C.	Spreading rush (Juncus patens)	132	Herb	Plug	6"	Mass
	Blue wild rye (Elymus glaucus)	131	Herb	Plug	4"	Mass
	Total Groundcover	263				

LISTING FOR RAIN GARDEN FACILITY 'D'

(REFER TO PLANTING DETAILS SHEET L103)

	ZONE A — SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 176 SQ FT Plant Communities	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
LG. Shrub/ Sm. Tree	Douglas spiraea (Spirea douglasii)	1	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	1				
Sm. Shrub	Kelsey Dogwood (Cornus sericea 'Kelseyi')	2	Shrub	1 gal.		Cluster
	Total Small Shrubs	2				
G.C.	Spreading rush (Juncus patens)	23	Herb	Plug	6"	Mass
	Dense Sedge (Carex densa)	23	Herb	Plug	4"	Mass
	Total Groundcover	46				

	ZONE B — DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 176 SQ FT Plant Communities	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
Tree	Vine Maple (Acer circinatum)	2	Tree	1" cal.	1" cal.	Cluster
	Total Trees	1				
LG. Shrub/ Sm. Tree	Red flowering Currant (Ribes sanguimeum)	2	Shrub	1 gal.	30"	Cluster
	Douglas spiraea (Spirea douglasii)	2	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	4				
Sm. Shrub	Oregon Grape (Mahonia aquifolium)	2	Shrub	1 gal.		Cluster
	Kelsey Dogwood (Cornus sericea 'Kelseyi')	3	Shrub	1 gal.		Cluster
	Total Small Shrubs	5				
G.C.	Spreading rush (Juncus patens)	75	Herb	Plug	6"	Mass
	Blue wild rye (Elymus glaucus)	75	Herb	Plug	4"	Mass
	Total Groundcover	150				

Stormwater Facility Growing Medium Per CCSD#1 Standards (Appendix A)
Furnish imported growing medium for vegetated stormwater facilities conforming to the following:

A.3.1 Standard Blend. Standard Blend for Public and Private Facilities: Use this blend for all vegetated stormwater management facilities, except those in the right-of-way where compaction from foot traffic is a concern.

a. General Composition: The medium should be a blend of loamy soil, sand, and compost that is 30 to 40 percent compost (by volume) and meets the criteria in this specification.
b. Analysis Requirements for the Blended Material:
   1. Particle Gradation: A particle gradation of the blended material, including compost, should be in conformance with ASTM C1 17/C136 (AASHTO T11/T27).
c. Organic Matter Content: The soil organic matter content should be in conformance with ASTM D2974 (loss on ignition test). The soil organic matter content should be a minimum of 10 percent.
d. pH: The blended material should have a pH of 5.5 to 7.

A.3.2 General Requirements for the Blended Material:

a. The material should be loose and friable.
b. It should be well mixed and homogenous.
c. It should be free of wood pieces, plastic, screened and free of stones 1 inch (25 mm) or larger in any dimension; free of roots, plants, sod, clods, clay lumps, pockets of coarse sand, paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials harmful to plant growth; and free of weeds and invasive plants including but not limited to:
   1. Cirsium arvense (Canadian Thistle)
   2. Convolvulus spp. (Morning Glory)
   3. Cytisus scoparus (Scotch Broom)
   4. Dipsacus sylvestris (Common Teasel)
   5. Festuca arundinaceae (Tall Fescue)
   6. Hedera helix (English Ivy)
   7. Holcus canatus (Velvet Grass)
   8. Lolium spp. (Rye Grasses)
   9. Lotus corniculatus (Bird's Foot Trefoil)
   10. Lythrium salicaria (Purple Loose Strife)
   11. Melilotus spp. (Sweet Clover)
   12. Myriophyllum spicatum (Eurasian Milfoil)
   13. Phalaris arundinaceae (Reed Canary Grass)
   14. Rubus discolor (Himalayan Blackberry)
   15. Solanum spp. (Nightshade)
   16. Trifolium spp. (Clovers), and
   17. Not infested with nematodes, grubs, other pests, pest eggs, or other undesirable organisms and disease-causing plant pathogens; friable and with sufficient structure to give good tilth and aeration, continuous, air-filled, pore-space content on a volume/volume basis should be at least 15 percent when moisture is present at field capacity; and soil should have a field capacity of at least 15 percent on a dry weight basis.
d. It should have no visible free water.
e. It should be obtained from naturally well drained construction or mining sites where topsoil occurs at least 4 inches deep; and it should not be obtained from bogs, wetlands, or marshes.

A.3.3 Compost: The compost should be derived from plant material and provided by a member of the U.S. Composting Council Seal of Testing Assurance (STA) program. See www.compostingcouncil.org for a list of providers in the Portland area.

The compost should be the result of the biological degradation and transformation of plant-derived materials under conditions designed to promote aerobic decomposition. The material should be well composted, free of viable weed seeds, and stable with regard to oxygen consumption and carbon dioxide generation. The compost should have no visible free water and produce no dust when handled. It should meet the following criteria, as reported by the U.S. Composting Council STA Compost Technical Data Sheet provided by the vendor.

a. 100 percent of the material must pass through a 1/2-inch screen.
b. The pH of the material should be between 6 and 8.
c. Manufactured inert material (plastic, concrete, ceramics, metal, etc.) should be less than 1.0 percent by weight.
d. The organic matter content should be between 35 and 65 percent.
e. The soluble salt content should be less than 6.0 mmhos/cm.
f. Germination (an indicator of maturity) should be greater than 80 percent.
g. The stability should be between classes 5-7.
h. The carbon/nitrogen ratio should be less than 25:1.
i. The trace metals test result = "pass."

A.3.4 Stormwater Facility Growing Medium Installation

a. Protection of the Growing Medium: The growing medium should be protected from all sources of contamination, including weed seeds, while at the supplier, in conveyance, and at the project site.
b. Placement of the Growing Medium: The medium should be placed in loose lifts, not to exceed 8 inches each and each lift should be compacted with a water-filled landscape roller. The material should not otherwise be mechanically compacted.
c. Timing of Plant Installation: Weather permitting, plants should be installed as soon as possible after placing and grading the growing medium in order to minimize erosion and further compaction.
d. Erosion Control: Temporary erosion control measures may be required until permanent stabilization measures are functional, including protection of overflow structures.
e. Protection of the Facility: In all cases, the facility must be protected from foot or equipment traffic that is unrelated to the construction of the facility. Temporary fencing or walkways should be installed as needed to keep workers, pedestrians, and equipment out of the facility. Under no circumstances should materials and equipment be stored in the facility.
f. Sediment protection: Stormwater facilities should be kept clean and should not be used as erosion and sediment control structures during construction.
g. Wet and Winter Conditions: Placement of the growing medium is not recommended when the ground is frozen or saturated or when the weather is determined to be too wet.

A.3.5 Watering, Fertilizing, and Mulching

a. Water all plants during establishment to maintain all plantings in a healthy thriving condition.
b. Fertilizers should generally be avoided in stormwater facilities. Fertilize all plants during establishment as needed with slow release, organic (low yield) material.
c. The purpose of mulching soils is to conserve moisture, hold plantings and topsoil in place, limit weed establishment and, moderate soil temperatures.
d. Mulch for Vegetated Stormwater Facilities: The use of mulch in frequently inundated areas should be limited to avoid any possible water quality impacts, including the leaching of tannins and nutrients and the migration of mulch into waterways. Mulches to be used are a stable and inert (nonleaching) matter of sufficient mass and density that it will not float in standard flows. Mulch cover should be maintained throughout the life of the stormwater facility with minimum thickness of 2 inches in depth.

MEARS DESIGN GROUP
LANDSCAPE ARCHITECTURE & PLANNING
PO Box 23338 | Portland, Oregon | 97281
Phone: 503.601.4516 | Fax: 503.924.4688

REGISTERED 540 TROY MEARS OREGON 7/21/2003 LANDSCAPE ARCHITECT

NOT FOR CONSTRUCTION

MARQUIS ASSISTED CARE
PARKING LOT EXPANSION
PLANTING PLAN

1680 MOLALLA, OREGON CITY, OREGON

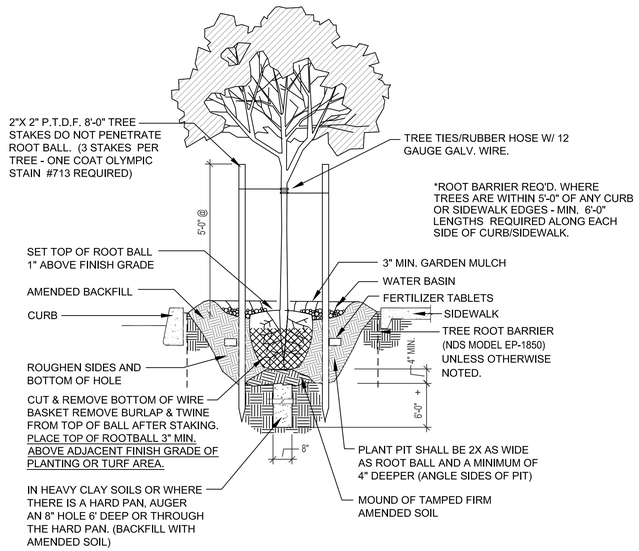
REVISIONS

REV.	DATE	DESCRIPTION
	2/26/2019	Design Changes

SHEET NAME:
RAIN GARDEN
PLANT LISTING & NOTES

DRAWN BY:	TAM
CHECKED BY:	TAM
ISSUE DATE:	8/9/2018
JOB NO.:	1828

SHEET:
L102
OF 3

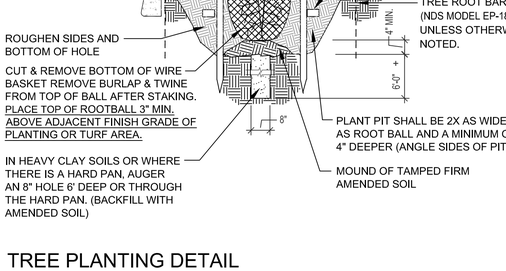


TREE PLANTING DETAIL

N.T.S.

TYPICAL PLANTING NOTES:

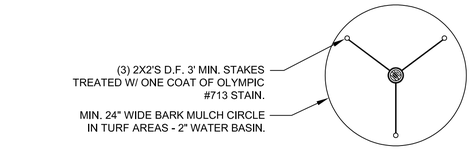
1. B&B stock may be substituted with container stock of equal grade.
2. Container stock may be substituted with B&B stock of equal grade.
3. Plant material shall conform with American Standard for Nursery Stock, ANSI Z60.1, 2004 edition.
4. All trees shall be branched.
5. Refer to project technical specification for topsoil requirement. All planting beds shall have a minimum of 18 inches topsoil. Re-use of existing topsoil is recommended, but must meet specifications.
6. Garden mulch all planting beds with 3" min. Layer of specified garden mulch.
7. In the event of a discrepancy between this material listing and the drawings, the drawings shall govern the plant species and quantities required.
8. In the event of question or lack of clarity on drawings, Landscape Contractor is to call Landscape Architect before proceeding.
9. Landscape contractor is to notify Landscape Architect prior to installation of plant material to approve final placement.
10. Landscape Contractor to verify plant material quantities.
11. Contractor will provide a one year warranty on all provided & installed plant material from date of final approval by owner's representative.

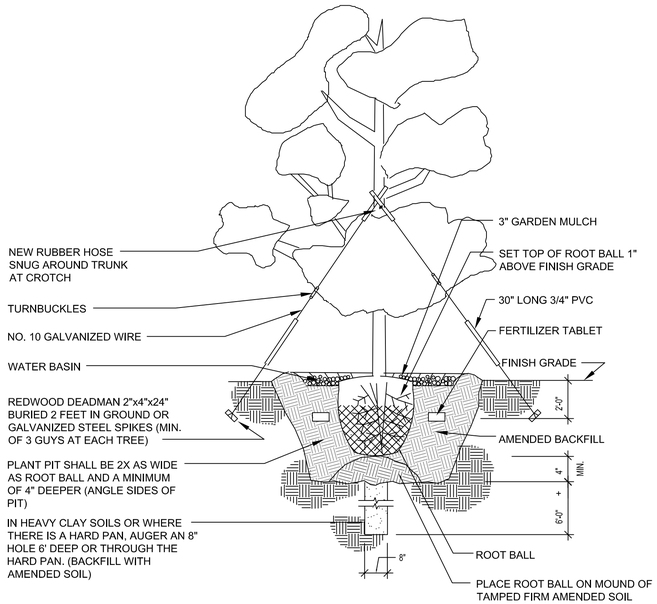


SHRUB PLANTING DETAIL

N.T.S.

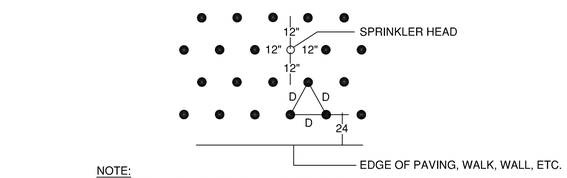
NOT FOR CONSTRUCTION



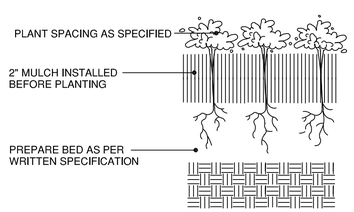


EVERGREEN TREE PLANTING DETAIL

N.T.S.



NOTE:
LOCATE PLANTS SPACED EQUAL DISTANT (D) FROM EACH OTHER AS SPECIFIED AND MINIMUM OF 12" FROM SPRINKLER HEAD

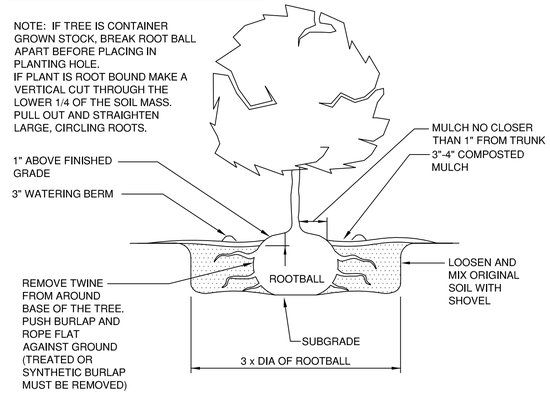


GROUNDCOVER PLANTING DETAIL

N.T.S.

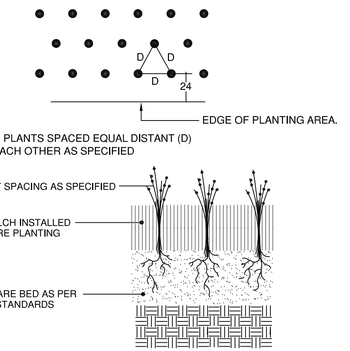
NO FERTILIZER TABLETS REQUIRED FOR STREAM BANK AND HCA PLANTINGS.

NO FERTILIZER REQUIRED FOR DETENTION POND PLANTINGS.

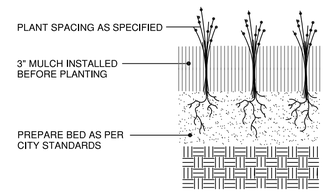


TREE PLANTING - CONTAINER/ BURLAPPED

(RAIN GARDEN FACILITY AND PLANTER AREAS) N.T.S.

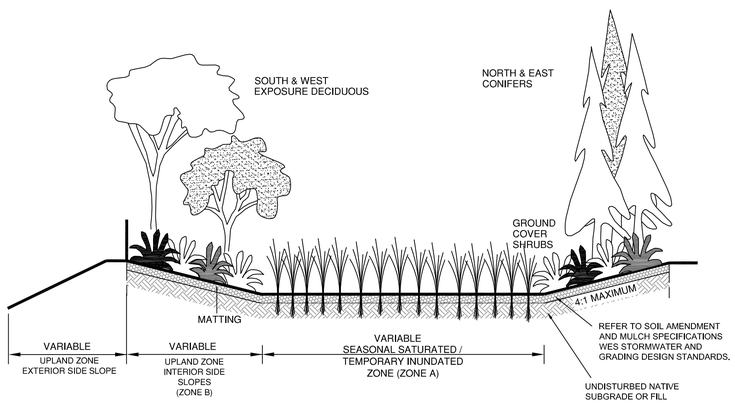


NOTE:
LOCATE PLANTS SPACED EQUAL DISTANT (D) FROM EACH OTHER AS SPECIFIED



PLUGS/GROUND COVER PLANTING DETAIL

(RAIN GARDEN FACILITY AND PLANTER AREAS) N.T.S.



A / L103 RAIN GARDEN / SWALE WATER QUALITY FACILITY

PER WES STANDARDS REFER TO CIVIL FOR GRADING REQUIREMENTS NTS

NOT FOR CONSTRUCTION

MEARS DESIGN GROUP
LANDSCAPE ARCHITECTURE & PLANNING
PO Box 23338 | Portland, Oregon | 97281
Phone: 503.601.4516 | Fax: 503.924.4588

REGISTERED 540 TROY MEARS OREGON 7/21/2003 LANDSCAPE ARCHITECT PRELIMINARY

MARQUIS ASSISTED CARE
PARKING LOT EXPANSION
PLANTING PLAN
1680 MOLALLA, OREGON CITY, OREGON

REVISIONS

REV.	DATE	DESCRIPTION
	2/26/2019	Design Changes

SHEET NAME: DETAILS & NOTES

DRAWN BY:	TAM
CHECKED BY:	TAM
ISSUE DATE:	8/9/2018
JOB NO.:	1828

SHEET: L103

OF 3

CHARBONNEAU ENGINEERING LLC

MEMORANDUM

Date: June 10, 2019

To: Eric Evans, PE
Engineering Director
Emerio Design
6445 SW Fallbrook Place
Suite 100
Beaverton OR 97008

From: Frank Charbonneau, PE, PTOE

Subject: Parking Study Report FL1957
Marquis Memory Care
Molalla Avenue, Oregon City

Charbonneau Engineering conducted a parking study for the Marquis Memory Care facility located at the corner of Beavercreek Road and Molalla Avenue in Oregon City. The study was done in conjunction with an upcoming parking lot expansion. Upon review of the original project application City staff determined the need for additional parking information including an assessment of the site's conditions. The scope of the study covered taking multiple on-site parking surveys in order to document usage of the site during normal operations.

The City's planning department and transportation consultant confirmed the study's scope prior to initiating the study. As a result the assessment addressed several parking related elements including the following tasks.

- Performance of a series of parking lot surveys at the existing Marquis of Oregon City Memory Care facility. Site address is 1680 Molalla Avenue.
- On each weekday including a Monday-Thursday the surveys were completed and noted the number of vehicles parking in the lot. The surveys were collected during the peak demand times as related to the various employee shift changes. The shifts with the greatest number of employees occurred from 6AM-2PM (44 employees) and 2PM-5PM (35 employees). The other shifts have less than 14 employees.
- On-Site parking was measured on each of four weekdays at the following times; 9AM, 12 noon, 1:30PM, 1:45PM, 2:00PM, 2:30PM, 4:30PM, 4:45PM, 5:00PM, 5:30PM, & 6:00PM.
- The parking demand was recorded in table format for each survey with the associated survey data detailed in this document.
- A summary of the facility's staff levels and shift change times is presented.
- Document if on-street parking is available within a 500 foot radius of the project site.
- Identify the number of existing parking spaces and the number of parking spaces associated with the proposed expansion. Include the parking demand/capacity ratios in the analysis for each survey recorded.

- Identify measures that may be considered to help moderate the parking demand. Such proposals may include restricting visitation hours and initiating a transportation demand management program related to employee use of transit, ride sharing, and shared parking strategies.

The Marquis facility operates 24 hours per day every day of the week as a memory care and rehabilitation center located in the southwesterly corner of the intersection of Molalla Avenue and Beavercreek Road. Besides memory care the center provides rehabilitation services for clients recovering from surgery or injuries. Short and long term care is provided.

The attached vicinity map (Figure 'a') highlights the project location. As management has noted that parking demand on the site is at a high level with over-parked conditions the need to increase capacity has been undertaken. The proposed parking plan would increase the lot's capacity from 42 spaces to 64 spaces. A copy of the parking plan showing the number of spaces is attached (Figure `b`). No building improvements or operational changes are planned in conjunction with the site's parking modification plan.

The memory care site has two driveway accesses on Molalla Avenue located south of the signalized intersection at Beavercreek Road and Molalla Avenue. Due to the on-site parking layout and traffic circulation pattern the northerly driveway effectively functions as an ingress only access. The southerly access provides two-way traffic operation. Both driveways measure between 25 feet to 28 feet in width.

Parking on the site is provided on the property's east and south sides and is connected by a single two-way drive aisle. The parking observations revealed that from one two vehicles parked off the main parking surface within the landscaped areas (still on-site). This occurred during the heaviest use times on each of the four survey days. There are seven parking stalls designated for visitors' parking in front of the building's main entrance that remained occupied throughout the day. Two to three times per day larger vehicles and trucks parked in the lot just inside the ingress access off Molalla Avenue for service/delivery purposes. When this activity occurred the parking lot area between the two site access points became more congested and impacted traffic flow in this area.

The parking evaluation has confirmed on-street parking is not available on the site's two adjacent streets (Molalla Avenue & Beavercreek Road) or within 500 feet of the facility.

Parking use at the site primarily serves the staff and visitors with occasional trips by service, delivery, and utility vehicles such as sanitation trucks. With the primary demand due to staff and management is was important to document the staffing numbers present throughout the day. According to the facility's director the staffing level varies due to fluctuations in the census, however on average the following staff numbers are present on the weekdays and weekends as referenced in Table 1.

Table 1 Summary of Staffing & Work Shift Change Times		
Time of Day	Monday - Friday Staff Level	Saturday - Sunday Staff Level
6 AM - 2 PM	44	28
2 PM - 5 PM	35	19
5 PM - 10 PM	13	13
10 PM - 6 AM	7	7

Average Resident Census = 58 Persons (data provided by Marquis)

The highest staffing levels are present on weekdays and accordingly the parking surveys were conducted during the week within the morning and afternoon periods to cover the highest parking demand.

Table 2 presents a summary of parking data recorded on four separate weekdays in May. The results indicate that the parking lot demand is greatest (≥ 35 vehicles) during the mornings and early afternoon until after 2:30PM. The parking lot's capacity totals 42 spaces.

Table 2 Summary of On-Site Parking Lot Surveys Marquis Memory Care Facility, Oregon City May 13 to May 23, 2019						
Survey Time	Survey #1 May 13, Mon Cars Parked	Survey #2 May 14, Tue Cars Parked	Survey #3 May 15, Wed Cars Parked	Survey #4 May 23, Thur Cars Parked	Average Cars Parked	% Lot Cap
9:00 AM	32	37	36	34	35	83%
12:00 Noon	42	43	39	43	42	100%
1:30 PM	37	42	33	50	41	98%
1:45 PM	37	38	40	51	42	100%
2:00 PM	36	42	38	44	40	95%
2:30 PM	30	36	36	43	36	86%
4:30 PM	24	27	25	27	26	62%
4:45 PM	21	26	20	25	23	55%
5:00 PM	23	24	19	22	22	52%
5:30 PM	16	16	15	20	17	40%
6:00 PM	15	16	13	20	16	38%

The parking lot's average demand-to-capacity ratio in terms of number of cars parked versus the number of total spaces (42 spaces) is shown in the last column in Table 2. The results demonstrate that during the mornings and through the 2:30PM period the parking demand is exceeding a level of 83% demand/capacity. Between the noon hour and 2:00PM the ratios are 95% or higher and at these levels it can be difficult to find a space causing delays for drivers looking to park and also impacting traffic flow within the lot and adjacent to the site access.

The City's parking code includes Table 17.52.020 which stipulates that the maximum parking rate for senior housing, assisted living, and nursing home use is one space per five beds. As the Marquis site contains 69 beds a total of 14 parking spaces is permitted according to the code. Clearly this number of spaces is not adequate for the memory care operations as the

parking demand maximum (42 vehicles) translates to a rate of one space per 1.54 beds or 0.72 spaces per employee with 58 day shift employees.

At the Marquis site the parking demand is heavily driven by the number of employees. In researching the parking demand rates published in the ITE Parking Generation Manual (5th edition, 2019) several of the medical and office type uses produced comparative results to the Marquis site. Using 58 employees (# workers on day shift at Marquis) as the basis yielded parking results representative of the demand occurring at the Marquis.

Land Use	ITE Code	ITE Ave Peak Park Demand Per Employee	Comparative Parking Demand w/58 Employees
Nursing Home	#620	0.67	39
Medical Clinic	#630	0.83	48
General Office	#710	0.84	49
Medical Office	#720	1.26	73

The parking rate comparisons along with the parking survey results support that the facility's current demand is typical and there is a need to increase the lot's capacity. Based on the study's results it is recommended that the City of Oregon City support the developer's proposed plan to increase the parking lot's capacity from 42 spaces to 64 spaces.

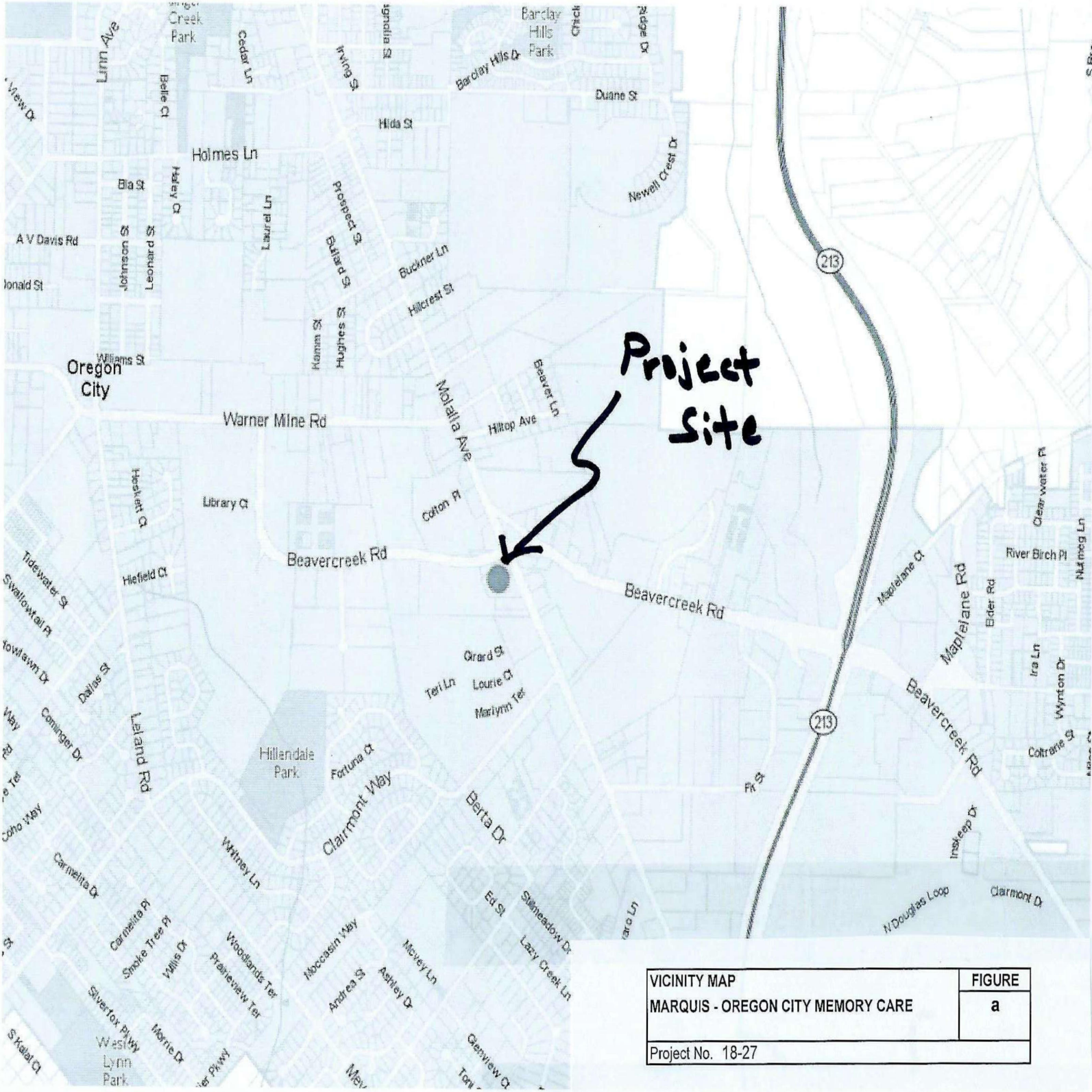
To help moderate parking demand in the future it is suggested that the Marquis management consider other measures to possibly alleviate demand. These may include the following.

- Restricting visitors' hours to later in the day or after 2:30PM. This would free up some parking if visitors are currently using non-visitor spaces.
- Offer transit passes to employees at reduced cost, or paid for by the employer.
- Initiate a ride-sharing program for employees to promote carpooling, etc.

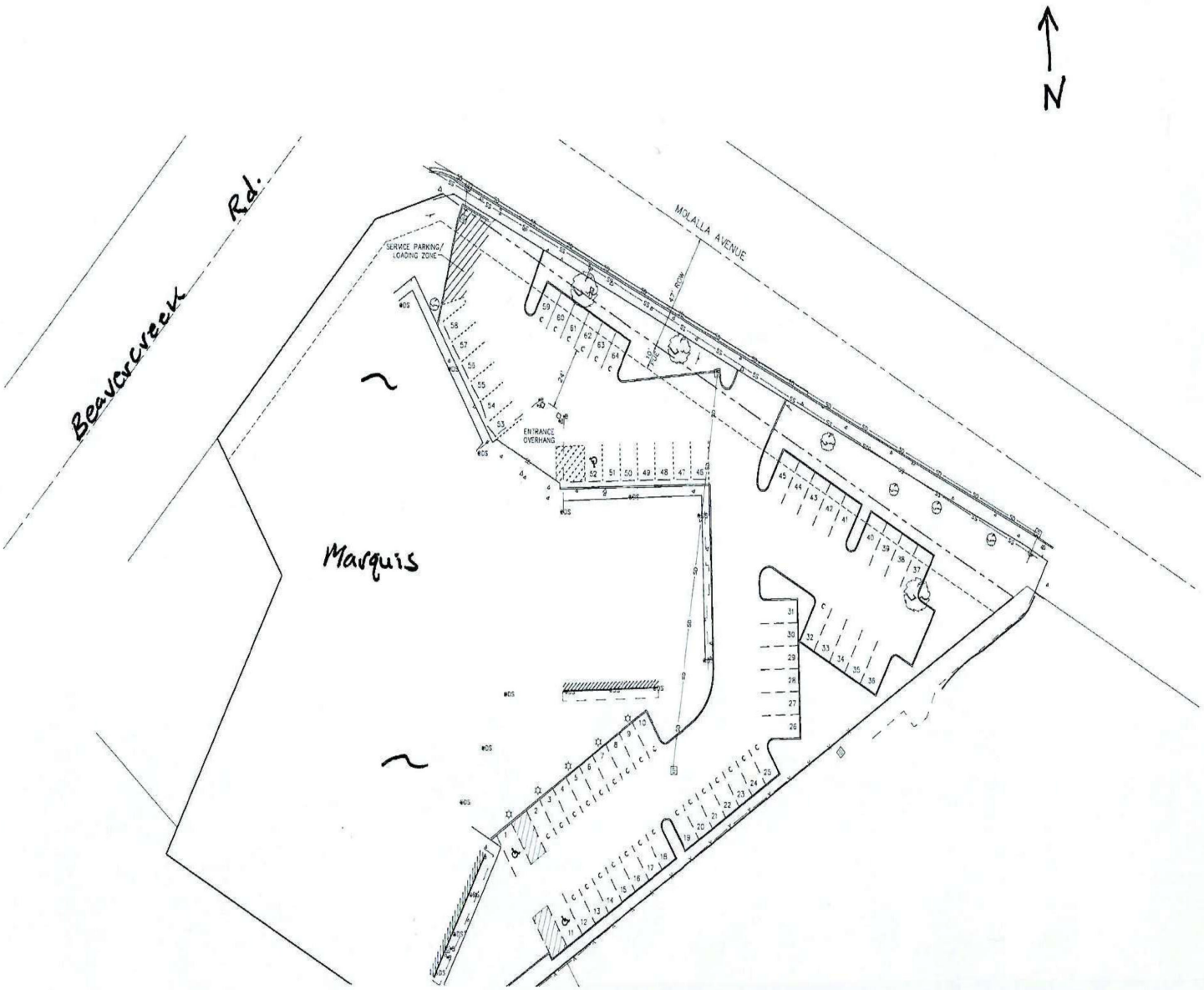
Please contact Frank Charbonneau, PE, PTOE at 503.293.1118 or email Frank@CharbonneauEngineer.com if should have any questions concerning this report.

Appendix

- Figure `a` - Vicinity Map
- Figure `b` - Parking Lot Layout
- ITE Parking Demand Figures



VICINITY MAP	FIGURE
MARQUIS - OREGON CITY MEMORY CARE	a
Project No. 18-27	



PARKING LOT PLAN MARQUIS - OREGON CITY MEMORY CARE	FIGURE b

Project No. 18-27

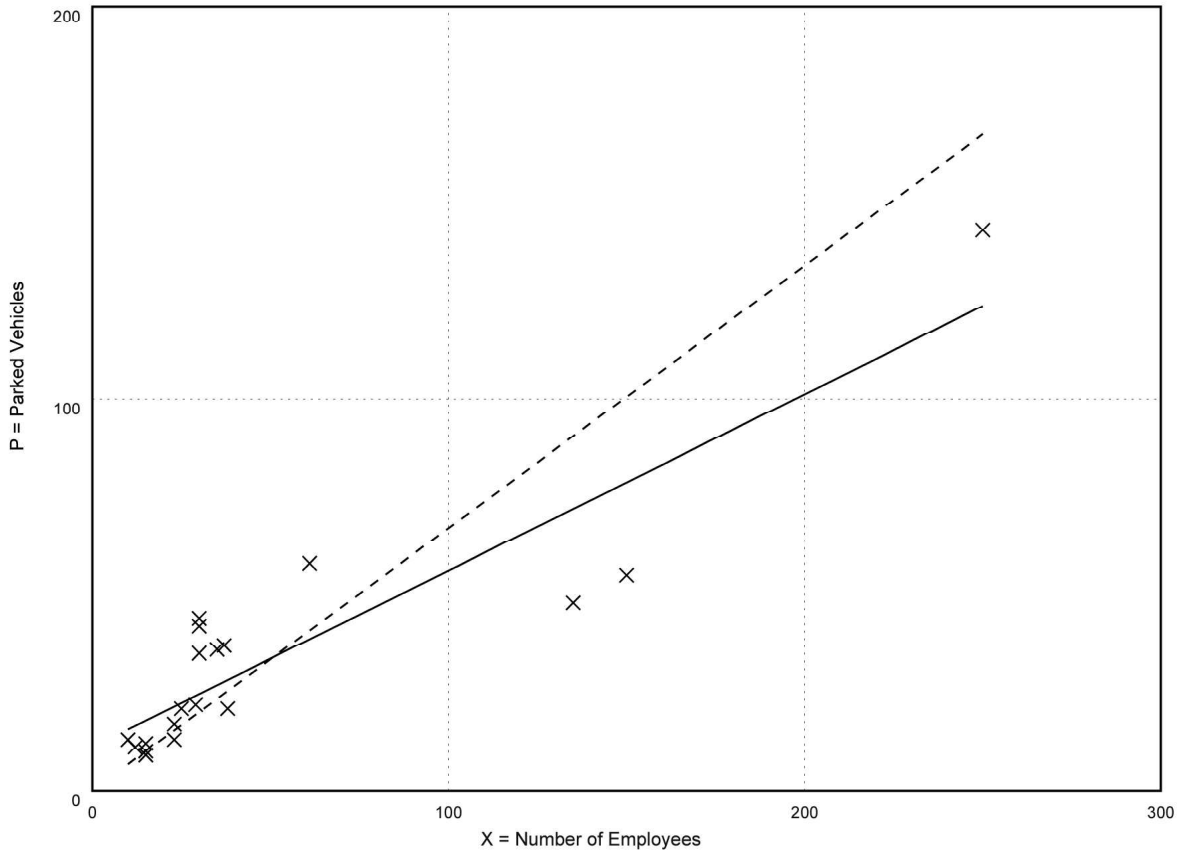
Nursing Home
(620)

Peak Period Parking Demand vs: Employees
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Peak Period of Parking Demand: 9:00 a.m. - 3:00 p.m.
Number of Studies: 19
Avg. Num. of Employees: 51

Peak Period Parking Demand per Employee

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.67	0.36 - 1.47	0.64 / 1.30	***	0.32 (48%)

Data Plot and Equation



Fitted Curve Equation: P = 0.45(X) + 11.16

R^2= 0.81

Clinic
(630)

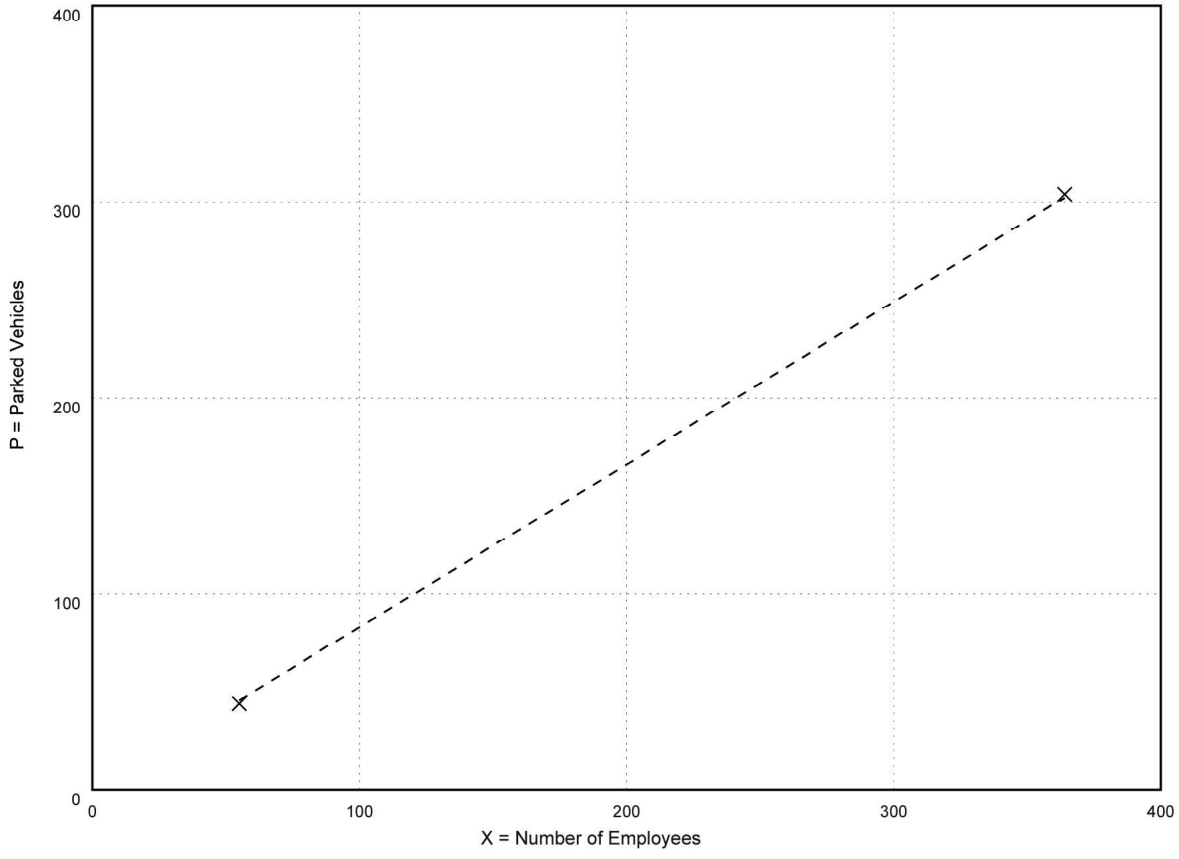
Peak Period Parking Demand vs: Employees
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Peak Period of Parking Demand: 9:00 a.m. - 3:00 p.m.
Number of Studies: 2
Avg. Num. of Employees: 210

Peak Period Parking Demand per Employee

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.83	0.80 - 0.84	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: ***

R^2= ***

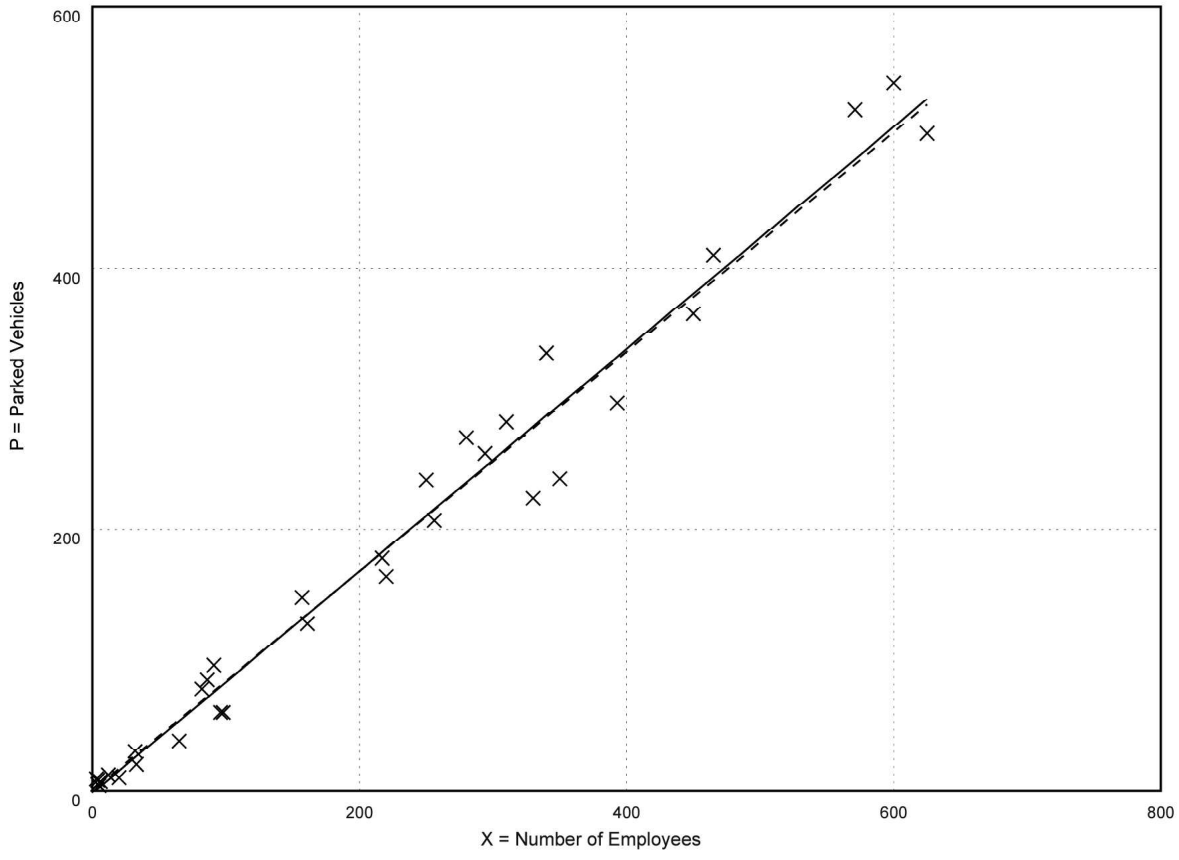
General Office Building
(710)

Peak Period Parking Demand vs: Employees
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Peak Period of Parking Demand: 9:00 a.m. - 3:00 p.m.
Number of Studies: 33
Avg. Num. of Employees: 209

Peak Period Parking Demand per Employee

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.84	0.50 - 3.00	0.80 / 1.05	0.80 - 0.88	0.12 (14%)

Data Plot and Equation



Fitted Curve Equation: P = 0.85(X) - 1.89

R^2= 0.98

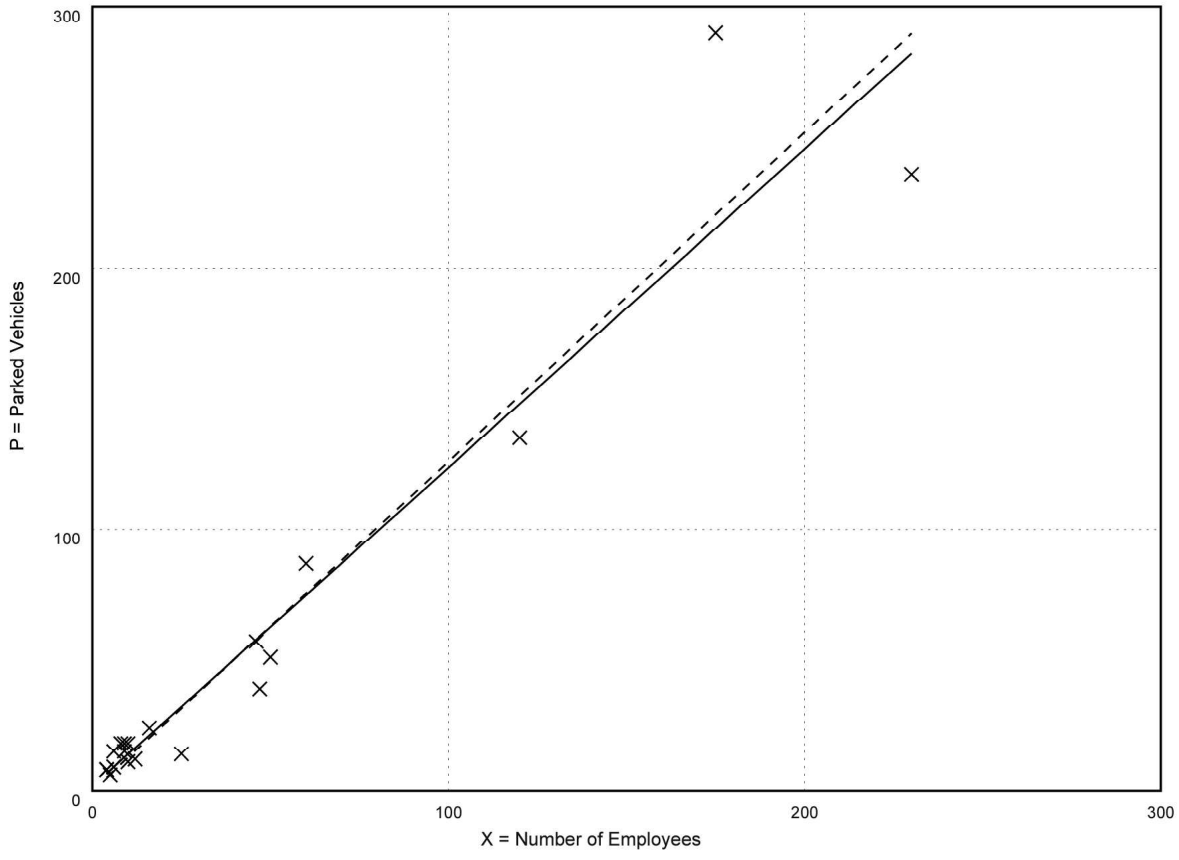
Medical-Dental Office Building
(720)

Peak Period Parking Demand vs: Employees
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Peak Period of Parking Demand: 9:00 a.m. - 4:00 p.m.
Number of Studies: 20
Avg. Num. of Employees: 43

Peak Period Parking Demand per Employee

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.26	0.56 - 2.50	1.12 / 2.00	1.11 - 1.41	0.35 (28%)

Data Plot and Equation



Fitted Curve Equation: P = 1.22(X) + 1.67

R^2= 0.92

Trisha Clark

From: Trisha Clark
Sent: Friday, June 21, 2019 1:58 PM
To: Pam Boyd
Subject: FW: Parking/Employee Transportation

From: Jordan R Turner
Sent: Wednesday, May 15, 2019 11:23 AM
To: Scott Miller <smiller@marquiscompanies.com>
Subject: Parking/Employee Transportation

Hey Scott,

Here is an email to follow up on our conversation a little bit ago about our parking lot and employee's using other types of transportation to get to work.

We currently have 95 employees on our payroll. Of those 95 employees 37 of them utilize public transportation, carpool with coworkers/family, or walk to work.

I visited all of the surrounding businesses and asked if we could use their parking lot for our employee's. None of the businesses were open to allowing employee use their parking lot and stated to me that "They would be towed." If they parked there. I asked them if they could give me some sort of letter stating that to which only one business said they would. The business complex directly across the street is owned by management company that I haven't heard back from but the parking lot it owns is very well signed to say that the parking is reserved for patrons of those businesses. If you feel it would be helpful I would be open to going back around to see if there is anything that they can give me showing that they have refused to let us use parking spots.

Though Parking for our employee's is important the parking lot expansion would be more to serve the patients families that come to visit. We average 60 plus residents which at anyone time could have a visitor. This applies especially to our skilled wing of the facility that runs about 18 patients on average. The skilled patients have visitors more frequently and in greater numbers. Also, many of our visitors are elderly themselves and having to park a good distance away then to walk across a busy street creates a safety issue.

Another thought I had was that our state staffing ratio requirements have changed in over the years which require us to have more staff. We have a lot more staff than when this facility and parking lot were initially built. At the time that the building was built I am sure the parking lot was more than enough.

I hope this is close to what you were looking for. Just let me know if I can give you any other info!

Thanks,

Jordan Turner
Administrator
Marquis Oregon City

P: 503.655.2588
F: 503.655.8191
E: jrturner@marquiscompanies.com

CHARBONNEAU
ENGINEERING LLC

MEMORANDUM

Date: July 10, 2018

To: Eric Evans, PE, Engineering Director
Emerio Design
6445 SW Fallbrook Place
Suite 100
Beaverton OR 97008

From: Frank Charbonneau, PE, PTOE

Subject: Transportation Analysis Letter FL1872
Marquis – Oregon City Memory Care
City of Oregon City

A Transportation Analysis Letter (TAL) for the Marquis of Oregon City Memory Care facility's parking improvement has been prepared as required according to the City of Oregon City's transportation standards. As the on-site parking expansion will not generate additional trips a TAL report was sufficient for the transportation analysis. Capacity analysis of nearby public intersections and the site driveways is not required. The transportation analysis letter includes a description of the site, on-site parking capacity of the existing and proposed design, verification of the driveway widths and standards, sight distance assessment, and review of the traffic safety conditions.

Site Development

The Marquis facility is currently a memory care and rehabilitation center located in the southwesterly corner of the intersection of Molalla Avenue and Beavercreek Road at 1680 Molalla Avenue. The attached vicinity map (Figure 'a') highlights the project location. As parking demand on the site is at a high level with over-parked conditions the capacity will be increased from 42 spaces to 64 spaces. A copy of the parking plan showing the number of spaces is attached (Figure `b`). No on-street parking is available on the two adjacent streets (Molalla Avenue & Beavercreek Road) next to the site.

No building improvements or operational changes are planned in conjunction with the site's parking modification plan.

Site Access

The site has two driveway accesses on Molalla Avenue located south of the signalized intersection at Beavercreek Road and Molalla Avenue. Due to the on-site parking layout and traffic circulation pattern the northerly driveway effectively functions as an ingress only access. The southerly access provides two-way traffic operation. Both driveways measure between 25 feet to 28 feet in width and meet the City's non-residential width standard (Municipal Code 12.04.025 – Street Design, Driveway Curb Cuts) ranging from 15 feet to 40 feet wide.

Trip Generation

As no building improvements or operational changes will be made to the existing memory care and rehabilitation facility the site's trip generation will not increase.

Sight Distance
Intersection sight distance along Molalla Avenue was reviewed in accordance with AASHTO standards. The travel speed along Molalla Avenue is posted at 35 MPH in this vicinity. Based on 35 MPH AASHTO recommends a minimum intersection sight distance of 390 feet be available.

From the Molalla Avenue site access points currently there are no sight distance obstructions and the available intersection sight distance exceeds 500 feet in both directions. Therefore the sight distance standards are met. It will be necessary to maintain the required intersection sight distance. Any obstructions such as vegetation, fencing, buildings, signage, parking, above ground utilities, or other objects that may inhibit the sightlines must be avoided for safety reasons.

Safety Review
Accident data within the five-year period between 01/01/12 and 12/31/16 for Molalla Avenue at the Beavercreek Road signalized intersection nearest to the site was obtained from the Oregon Department of Transportation staff and was reviewed to help identify any traffic safety problems. Copies of the accident reports are attached.

For the study period there were a total of 55 reported crashes. Some of the crashes may have been related to traffic movements occurring within or near the existing north site access since its location is within 50 feet of the signal. However, the crash frequency cannot be established specifically from the data. In order to lessen the potential for crashes in the future from occurring at or near the site driveway the parking design will be changed to eliminate five angled spaces positioned just inside the lot near the driveway. The parking modification will improve safety by reducing potential traffic conflicts within and near the driveway area adjacent to Molalla Avenue.

Conclusion
The transportation analysis letter for the Marquis of Oregon City Memory Care has been prepared to document the trip generation, access width, sight distance availability, and safety. The existing parking lot will be modified to increase the much needed on-site parking capacity from 42 spaces to 64 spaces. No building improvements or operational changes are planned and as a result there will be no increase to the facility's trip generation.

The site will maintain the existing driveways on Molalla Avenue located south of the Beavercreek Road intersection. Both driveways currently meet the City's width standard of between 15 feet and 40 feet.

In order to improve traffic safety near the north site driveway on Molalla Avenue parking conditions will be changed to eliminate five angled spaces just inside the lot near the driveway. The modification will improve safety by reducing potential traffic conflicts within and near the driveway area adjacent to Molalla Avenue.

Based on the results of the transportation analysis it is recommended that the City of Oregon City support the proposed parking lot design.

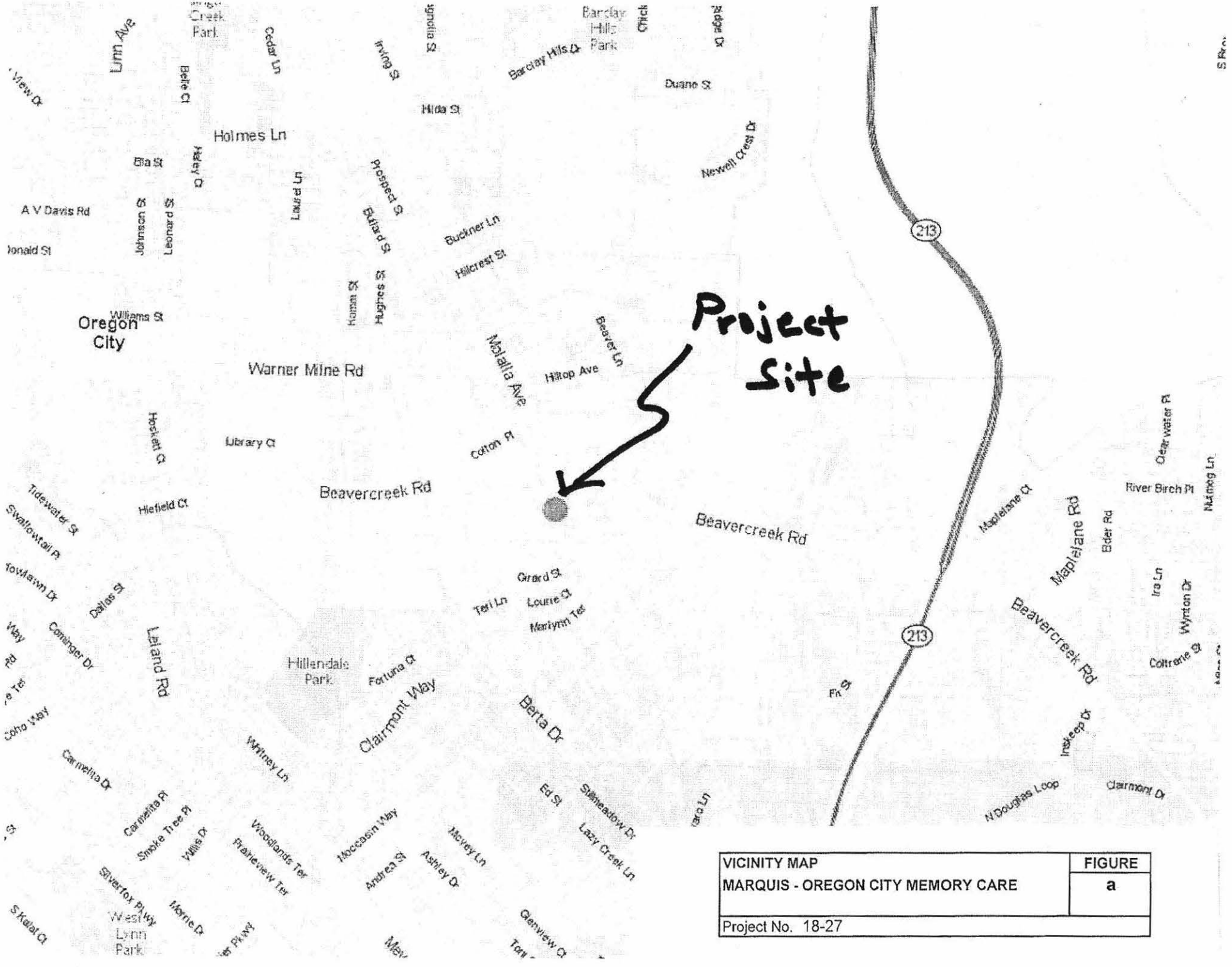
It there are any questions regarding this report please contact Frank Charbonneau, PE, PTOE at 503.293.1118 or email Frank@CharbonneauEngineer.com.

Attachments

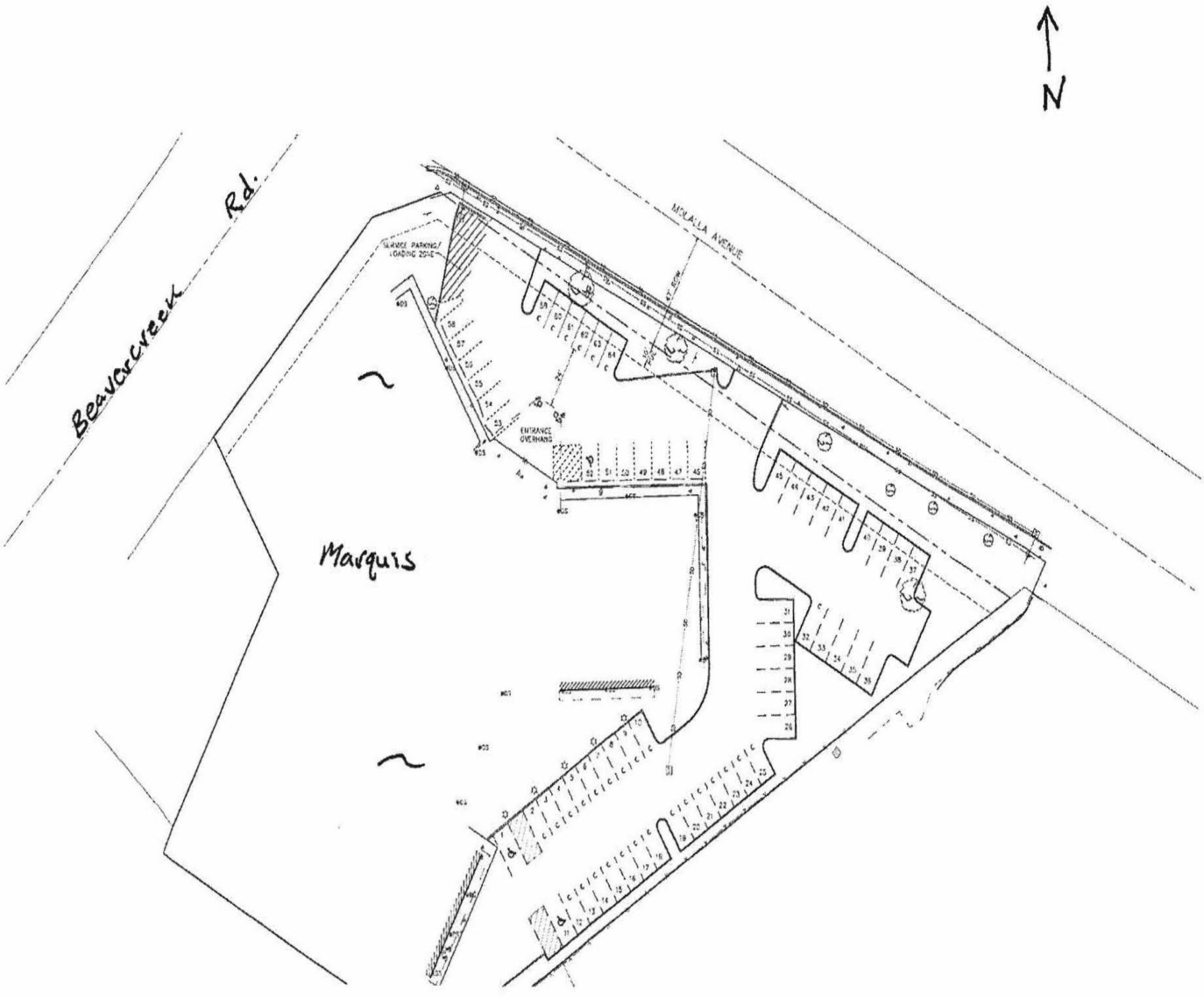
Figure 'a' Vicinity Map
Figure ' b' Parking Lot Plan (furnished by Emerio Design)
Safety - Accident History Report (furnished by ODOT)

7-10-18

REGISTERED PROFESSIONAL ENGINEER
9301
OREGON
July 22, 1977
FRANK R. CHARBONNEAU
RENEWS: 12-31-19



VICINITY MAP	FIGURE
MARQUIS - OREGON CITY MEMORY CARE	a
Project No. 18-27	



PARKING LOT PLAN	FIGURE
MARQUIS - OREGON CITY MEMORY CARE	b

Project No. 18-27

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Molalla Ave & Beavercreek Rd
January 1, 2012 through December 31, 2016

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2016														
FIXED / OTHER OBJECT	0	1	0	1	0	1	0	1	0	1	0	1	0	1
REAR-END	0	1	1	2	0	1	0	2	0	2	0	2	0	0
TURNING MOVEMENTS	0	5	6	11	0	8	0	9	2	7	4	11	0	0
2016 TOTAL	0	7	7	14	0	10	0	12	2	10	4	14	0	1
YEAR: 2015														
ANGLE	0	0	1	1	0	0	0	0	1	1	0	1	0	0
REAR-END	0	3	1	4	0	3	0	3	1	4	0	4	0	0
TURNING MOVEMENTS	0	2	0	2	0	2	0	1	1	0	2	2	0	0
2015 TOTAL	0	5	2	7	0	5	0	4	3	5	2	7	0	0
YEAR: 2014														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0
BACKING	0	1	0	1	0	1	0	0	0	1	0	1	0	0
REAR-END	0	3	3	6	0	6	0	3	3	5	1	6	0	0
SIDESWIPE - OVERTAKING	0	1	0	1	0	2	0	0	1	0	1	1	0	0
TURNING MOVEMENTS	0	4	3	7	0	7	0	6	1	5	2	7	0	0
2014 TOTAL	0	10	6	16	0	17	0	10	5	12	4	16	0	0
YEAR: 2013														
REAR-END	0	0	3	3	0	0	0	2	1	2	1	3	0	0
TURNING MOVEMENTS	0	4	1	5	0	11	0	3	2	1	4	5	0	0
2013 TOTAL	0	4	4	8	0	11	0	5	3	3	5	8	0	0
YEAR: 2012														
REAR-END	0	4	4	8	0	8	0	6	2	6	2	8	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	0	1	1	2	0	2	0	0
2012 TOTAL	0	5	5	10	0	9	0	7	3	8	2	10	0	0
FINAL TOTAL	0	31	24	55	0	52	0	38	16	38	17	55	0	1

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

EMERIO Design

Civil Engineering
Land Survey
Land Use Planning
Construction Management

August 9, 2018

RE: Pre-Application No. PA 18-16

Dear Resident:

Emerio Design is representing the owner of the property located at1680 Molalla Avenue. We are considering an expansion of the existing parking lot for the Marquis Memory Care and Post Acute Rehabilitation Center to add parking spaces within the existing parking lot area.

You are invited to attend a meeting, with surrounding residents, to discuss the proposal in more detail, per the requirements of the city of Oregon City Municipal Code 17.50.055.

August 28th, 2018 at 6:00 pm

Marquis Memory Care and Post Acute Rehabilitation Center
1680 Molalla Avenue
Oregon City, Oregon 97035

This meeting is based on preliminary plans and may be adjusted as a part of the land use process. Due to the type of request this is, there will also be a public hearing held about the project as a part of the city review process, which you will receive notice of from the city when the Hearing is scheduled.

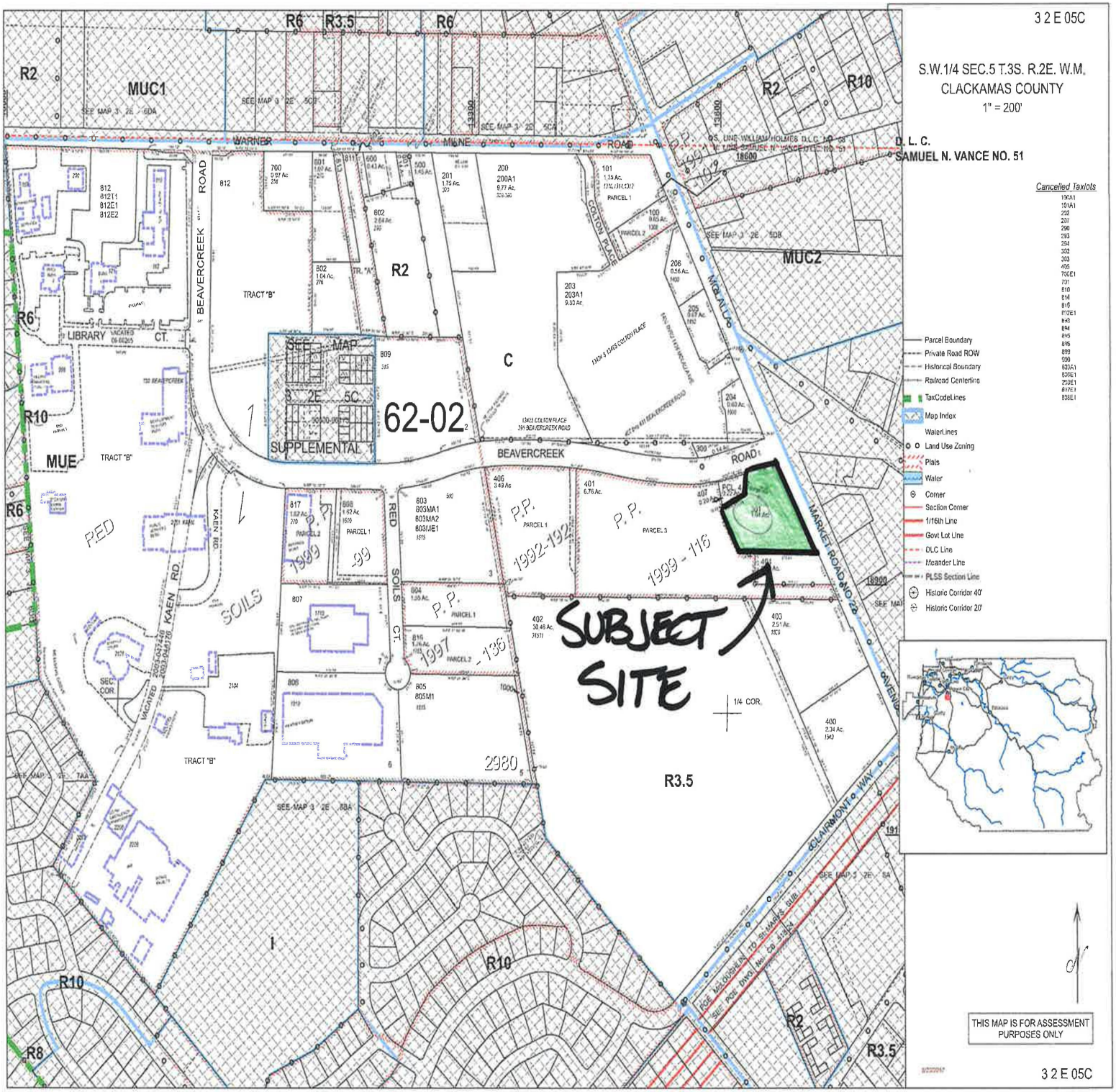
If you have any questions, please call me at 503.746.8812 or email me at trisha@emeriodesign.com.

Sincerely,

Trisha Clark
Land Use Planner

Enclosure: Location Map

STE. 100, 6445 S.W. Fallbrook Place • Beaverton, Oregon 97008 • 503-746-8812 | TEL • 503-639-9592 | FAX www.emeriodesign.com


3 2 E 05C
S.W.1/4 SEC.5 T.3S. R.2E. W.M.
CLACKAMAS COUNTY
1" = 200'
D. L. C.
SAMUEL N. VANCE NO. 51
SUBJECT SITE
62-02
SUPPLEMENTAL 1
SEE MAP 3 2E 5C
BEAVERCREEK ROAD
WARNER MILNE ROAD
MARKET ROAD NO. 28
CLAIRMONT WAY
KAEN RD.
RED SOILS CT.
COLTON PLACE
MCLALLA
LIBRARY VACATED CT.
TRACT "B"
TRACT "A"
1/4 COR.
SEC COR.
R2
R3.5
R6
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MUC1
MUC2
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P.P. 1999-99
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Section Corner
1/16th Line
Govt Lot Line
DLC Line
Meander Line
PLSS Section Line
Historic Corridor 40'
Historic Corridor 20'
THIS MAP IS FOR ASSESSMENT PURPOSES ONLY
3 2 E 05C

086
020

CLAIRMONT MFG HOUSING PARK INC
31 AIRPORT BLVD STE G
S SAN FRANCISCO, CA 94080

CRAIG T DANIELSON
PO BOX 2200
OREGON CITY, OR 97045

FAMILY PROPERTIES LLC
4800 SW MACADAM AVE STE 120
PORTLAND, OR 97239

FIRST INTERSTATE BK
PO BOX 2609
CARLSBAD, CA 92018

JOSEPH ALEXANDER
10247 SW CAFFALL LN
TIGARD, OR 97224

MALTZMAN PROPERTIES LLC
4800 SW MACADAM AVE STE 120
PORTLAND, OR 97239

MARKO SUSNJARA
17480 HOLY NAMES DR UNIT 206
LAKE OSWEGO, OR 97034

RED SOILS II LLC
9500 SW BARBUR BLVD #300
PORTLAND, OR 97219

SIERRA VISTA PROP PRTNRSHP
4560 SE INTERNATIONAL WAY STE
MILWAUKIE, OR 97222

STEIN & STEIN 2 LLC
13001 CLACKAMAS RIVER DR
OREGON CITY, OR 97045

WIESBERG PROPERTIES LLC
4800 SW MACADAM AVE STE 120
PORTLAND, OR 97239

WOOD PRODUCTS CREDIT UNION
PO BOX 70225
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Gaffney Lane NA Chair
13083 Setera Cir
Oregon City, OR 97045

Hillendale NA Chair
1304 Beaver Ln
Oregon City, OR 97045

EMERIO
Design

CIVIL ENGINEERS & PLANNERS

Drainage Report
Marquis Oregon City Parking Lot Expansion
Oregon City, Oregon 97045
(TL 00301, Tax Map 3S-2E-05C)

Emerio Project Number:	086-020
City of Oregon City Permit Numbers:	TBD
Date:	01/24/2018

Prepared For:
Marquis Companies
9560 SE International Way, #100
Portland, OR 97222
(503) 819-3610
smiller@marquiscompanies.com

Prepared By:
Eric D. Evans, PE
Emerio Design, LLC
6445 SW Fallbrook PL, Suite 100
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(503) 853-1910
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Table of Contents:

Project Overview and Description:

The purpose of this report is to address the stormwater management plan for the proposed development site. The site is approximately 1.84 acres in size and is located at 1680 Molalla Avenue in Oregon City, Oregon, see Appendix (A (1)). The site is bordered by Beavercreek Road to the north, Molalla Avenue to the east and commercial businesses to the south, west, and northwest. Vegetation onsite consists primarily of short grasses, shrubs and medium to large trees at the periphery of the property line. The site is occupied by the Marquis Oregon City Post-Acute Rehab Center with parking and drive areas surrounding the existing building. Proposed development at the site will consist of expansion of the existing parking lot at south and west of the existing building.

Soil Classification:

The NRCS soil survey of Clackamas County, Oregon classifies the development site soil as Bornstedt silt loam with an associated hydrologic group of C, Appendix (B (1)). The associated curve number utilized in this design is 74 for pervious surfaces with class C subsoil and 98 for impervious developed surfaces.

A geotechnical investigation conducted by GeoPacific Inc., measured an onsite infiltration rate of zero inches per hour and onsite infiltration facilities are not viable, see geotechnical report in Appendix (B (3)). Perched groundwater or seepage was not encountered during the site exploration at a maximum depth of 5.5 feet below existing ground surface. Groundwater is estimated to be approximately 15 to 25 feet below the ground surface per *United States Geological Survey, Snyder, 2018 website*.

Existing Vs. Proposed:

The proposed development site lies southwest corner of the intersection of S Beavercreek Rd and Molalla Avenue. The central portion of the site is occupied by a building and paved drive areas and parking lots surrounding the existing building. Most of the existing site is covered with impervious roof and pavements with undeveloped and forested with conifer trees at the periphery of the property line.

Existing roof drainage is routed into the parking lot with multiple downspouts located around the building and combines with parking lot drainage. All existing onsite drainage sheet flows to existing catch basins and routes to a storm main at Molalla Avenue.

Proposed development at the site will consist of expansion of the existing parking lot primarily at the southeastern corner with other additional improvements around the parking lot and associated stormwater facilities.

Methodology:

Onsite stormwater management facilities are sized to treat and flow control storm drainage from newly proposed Impervious areas. Due to topographic constraints, approximately 2,067 SF of existing impervious area is proxy treated for a 1,442 SF of newly proposed impervious area, see Appendix (D (2)). The stormwater management facilities and drainage flow directions are shown in Appendix (D (2)).

Roof drainage will continue to flow through downspouts to the parking lot and sheet flows to existing catch basins onsite.

The Clackamas County Water Environmental Services BMP sizing tool and 2015 Stormwater and Grading Design Standards by Oregon City are used to size the stormwater facilities for the 10-year 24-hour design storm.

Onsite Treatment and Flow Control:

The proposed privately owned and maintained filtration Rain Gardens are designed using the BMP Sizing Tool to flow control the flow duration curve from the mitigated outflow to be equal to or lower than the flow duration curve representing pre-development condition for flows ranging from 42 percent of the 2-year peak flow to the 10-year peak flow. The pre-development surface condition is configured as forested with respective site soil group C. Onsite paved impervious area of 5,501 SF will be treated and flow controlled by 871 SF of Rain Garden onsite. A summarized result of BMP Sizing Tool report is shown below.

Rain Gardens

Rain Garden	Drainage Basin	Drainage Basin (SF)	Facility Minimum Required (SF)	Facility Provided (SF)	Orifice Size (in)
RG-A	B1	768	115	137	0.2
RG-B	B2	860	129	130	0.2
RG-C	B3	970	146	151	0.2
RG-D	B4	2,903	435	453	0.3

The proposed raingardens are properly sized to meet the minimum required size per BMP Sizing Tool, see Appendix (C (1)) for WES BMP Sizing Report. The proposed raingardens are designed per Figure C-4 of Oregon City Stormwater and Grading Design Standards.

Basin Delineation:

Offsite upstream and downstream tributary drainage basin map was determined based on OcWebMaps's 2-foot and 10-foot contour lines. The upstream and downstream contributing basins encompasses roughly 131 acres while the project site is roughly 1.84 acres. The respective drainage basins are designated as basin 200,300,400 & 401 as provided in Appendix (D (3)). Based on the GIS data available, the downstream drainage is routed to an outfall located approximately 80 feet east of the property at 1635 Beavercreek Road.

Tabulated in Appendix (C (2)) is a list of pervious and impervious surface areas determined for each delineated basin. An impervious area of 2,640 square feet per lot was used for the drainage basins. The upstream and downstream basins were created for performing downstream conveyance analysis. Reference Appendix (D (3)) for an overall basin delineation map.

Downstream Analysis:

Per Oregon City requirement, a downstream conveyance analysis was conducted to verify that the additional flow from the site development will not adversely affect the

safety and or flooding potential of adjacent or downstream property owners. The 25-year 24-hour storm event with storm intensity of 4.0 inches was used to calculate downstream flow. Oregon City stormwater requirement per section 5.2.4.D "the downstream analysis shall extend to the distance where the project site contributes less than 15 percent of the cumulative tributary drainage area or 1,500 feet downstream of the approved point of discharge, whichever is greater." The downstream distance of 1,500 feet from the project site is used since it contributes larger drainage area than the 15% or less of the upstream drainage area.

Using the design requirements of Oregon City, flow rates were calculated for each determined basin, reference the HydroCAD output in Appendix (C (3)). The existing downstream storm system is composed of 48" pipes and an assumed pipe slope of 0.49% was used, see Appendix (C (4)) for existing pipe analysis report. For conservatism, the entire onsite area is considered impervious. Downstream pipe conveyance analysis calculation indicates that all downstream existing pipes have enough capacity to convey the additional storm drainage produced from the development site. A conservative approach indicates that all the downstream pipes are operating at 32.9% capacities and the additional site drainage will not adversely affect the safety and/or flooding potential of adjacent or downstream structures.

Engineering Conclusion:

The design of the proposed site and storm management plan satisfies the water quality and flow control requirements by 2015 Oregon City Stormwater and Grading Design Standards. The existing downstream storm conveyance system has enough capacity to convey the additional drainage flow from the development.

Appendix A:

Appendix (A (1))
Vicinity Map

Appendix B:

Appendix (B (1))
Soil Classification

Appendix (B (2))
Curve Number Table

RUNOFF CURVE NUMBERS (TR55)

Table 2-2a: Runoff curve numbers for urban areas

RUNOFF CURVE NUMBERS (TR55)

Table 2-2a: Runoff curve numbers for urban areas [1]

Cover description		CN for hydrologic soil group			
Cover type and hydrologic condition	Average percent impervious area[2]	A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.) [3]:					
Poor condition (grass cover <50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover >75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)			98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)				98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) [4]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82

Use CN = 74 for Pervious Surface

Use CN = 98 for Impervious Surface

Appendix B(3)

GeoPacific Engineering, Inc.

Real-World Geotechnical Solutions
Investigation • Design • Construction Support

Geotechnical Engineering Study

Marquis Oregon City Parking Lot Expansion
1680 Molalla Avenue
Oregon City, Oregon 97045

GeoPacific Engineering, Inc. Job No. 18-4984
August 29, 2018

14835 SW 72nd Avenue
Portland, Oregon 97224

Tel (503) 598-8445
Fax (503) 941-9281

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Real-World Geotechnical Solutions
Investigation • Design • Construction Support

August 28, 2018
Project No. 18-4984

Marquis Companies
Mr. Scott Miller
4560 SE International Way, Suite 100
Milwaukie, Oregon 97222
Phone: (971) 206-5200

SUBJECT: GEOTECHNICAL ENGINEERING STUDY
MARQUIS OREGON CITY PARKING LOT EXPANSION
1680 MOLALLA AVENUE
OREGON CITY, OREGON 97045

PROJECT INFORMATION

This report presents the results of a geotechnical engineering study conducted by GeoPacific Engineering, Inc. (GeoPacific) for the above-referenced project. The purpose of our study was to investigate subsurface conditions at the site and provide recommendations for stormwater management and the construction of new pavement sections. This geotechnical study was performed in accordance with GeoPacific Proposal No. P-6631, dated June 13, 2018, and your subsequent authorization of our proposal and *General Conditions for Geotechnical Services.*

Site Location:	1680 Molalla Avenue Oregon City, Oregon 97045 (see Figures 1 through 3)
Civil Designer:	Emerio Design Kyung Han 6445 SW Fallbrook Place, Suite 100 Beaverton, Oregon 97008 Phone: (503) 746-8812 Email: kyung@emeriodesign.com
Jurisdictional Agency:	City of Oregon City, Oregon
Prepared By:	GeoPacific Engineering, Inc 14835 SW 72nd Avenue Portland, Oregon 97224 Tel (503) 598-8445 Fax (503) 941-9281

SITE AND PROJECT DESCRIPTION

The site is approximately 1.84 acres in size, and is located at 1680 Molalla Avenue in Oregon City, Oregon (Figure 1). The site is bordered by Beavercreek Road to the north, Molalla Avenue to the east, and commercial businesses to the south, west, and northwest. Vegetation onsite consists primarily of short grasses, shrubs, and medium to large trees. The central portion of the site is occupied by the Marquis Oregon City Post Acute Rehab Center with parking and drive areas surrounding the existing building. The southeastern portion of the site is undeveloped and forested with conifer trees. Topography at the site is relatively flat with site elevations ranging from 429 to 432 feet amsl.

Based upon communication with the client and review of preliminary project plans, GeoPacific understands that the proposed development at the site will consist of the expansion of the existing parking lot primarily onto the southeastern portion of the site, and associated stormwater facilities.

REGIONAL GEOLOGIC SETTING

Regionally, the subject site lies within the Willamette Valley/Puget Sound lowland, a broad structural depression situated between the Coast Range on the west and the Cascade Range on the east. A series of discontinuous faults subdivide the Willamette Valley into a mosaic of fault-bounded, structural blocks (Yeats et al., 1996). Uplifted structural blocks form bedrock highlands, while down-warped structural blocks form sedimentary basins. Valley-fill sediment in the adjacent basin achieves a maximum thickness of 1,500 feet and overlies Miocene Columbia River Basalt at depth (Madin, 1990; Yeats et al., 1996).

The subject site lies on a broad volcanic plateau underlain by the Boring Lava which formed during a period of Plio-Pleistocene (5 to 0.2 million years ago) volcanism and faulting (Schlicker and Finlayson, 1979). The Boring Lava consists mainly of basaltic lava flows, but locally contains tuff breccia, ash, tuff, cinders, and scoriaceous volcanic debris flows deposited on the flanks of volcanic cones. The flows are commonly light gray to nearly black, with lighter tones predominating, and are characterized by columnar jointing and flow structures. The upper surface of the Boring Lava is typically weathered to depths of 25 feet or more with the upper 5 to 15 feet consisting of red-brown, clayey silt to silty clay soil.

FIELD EXPLORATION AND SUBSURFACE CONDITIONS

Our site-specific explorations for this report was conducted on July 27, 2018 and consisted of 3 hand auger borings extending to a maximum depth of 5.5 feet below ground surface (bgs), and 2 portable dynamic cone penetration tests (PDCPs). Hand augers HA-1 and HA-3 were performed to observe soil and groundwater conditions. Infiltration testing was conducted within hand auger HA-2 at 4.6 feet below the ground surface. The approximate locations of the explorations are shown on the attached site plans (Figures 2 and 3). It should be noted that the exploration locations were located in the field by pacing or taping distances from apparent property corners and other site features shown on the plans provided. As such, the locations of the explorations should be considered approximate. During the exploration, GeoPacific observed and recorded pertinent soil information such as color, stratigraphy, strength, and soil moisture content. Soils were classified in general accordance with the Unified Soil Classification System (USCS). At the completion of the

explorations, the hand augers were backfilled loosely with onsite soils. Exploration logs corresponding to hand augers HA-1 through HA-3, PDCP-1, and PDCP-2 are attached to the appendix of this report. Soil and groundwater conditions encountered in our explorations are summarized below.

Soil Descriptions

Undocumented Fill: Underlying the ground surface at the location of hand auger HA-2, we observed undocumented fill material consisting of medium stiff, brown, moderately organic, damp, SILT (ML-OL). The fill material contained subrounded to angular gravel and fine to medium roots. The undocumented fill was surfaced with grass and developed approximately 6 inches of topsoil on the ground surface. The undocumented fill extended to an approximate depth of 18 inches below the ground surface at the location of hand auger HA-2.

Topsoil Horizon: Underlying the ground surface at the location of hand augers HA-1 and HA-3, we observed a topsoil horizon consisting of medium stiff, dark brown, moderately organic, damp, SILT (ML-OL). The topsoil layer contained fine to medium roots. The topsoil horizon extended to an approximate depth of 10 inches below the ground surface in hand auger borings HA-1 and HA-3.

Residual Soil: Underlying the topsoil in hand augers HA-1 and HA-3, and the undocumented fill in hand auger HA-2, we observed residual soil consisting of stiff to very stiff, damp to moist, low plasticity, reddish brown, Lean CLAY (CL). The residual soil gradually graded to weathered rock at an approximate depth of 4-5 feet in our hand auger explorations. Based upon our observations of the soil type and review of geologic mapping, residual soil encountered in our explorations was derived from weathering of the underlying Boring Lava Formation.

Boring Lava – Beneath the residual soil, we encountered weathered rock belonging to the Boring Lava Formation in all explorations. The upper foot of the weathered rock was generally extremely soft to very soft (R0-R1). We experienced practical refusal on very soft (R1) basalt at a depth of 4.6 feet in hand auger HA-1, 5.5 feet in hand auger HA-2, and 4.2 feet in hand auger HA-3.

Table 1 - Rock Hardness Classification Chart

ODOT Rock Hardness Rating	Field Criteria	Unconfined Compressive Strength	Typical Equipment Needed For Excavation
Extremely Soft (R0)	Indented by thumbnail	<100 psi	Small excavator
Very Soft (R1)	Scratched by thumbnail, crumbled by rock hammer	100-1,000 psi	Small excavator
Soft (R2)	Not scratched by thumbnail, indented by rock hammer	1,000-4,000 psi	Medium excavator (slow digging with small excavator)
Medium Hard (R3)	Scratched or fractured by rock hammer	4,000-8,000 psi	Medium to large excavator (slow to very slow digging), typically requires chipping with hydraulic hammer or mass excavation)
Hard (R4)	Scratched or fractured w/ difficulty	8,000-16,000 psi	Slow chipping with hydraulic hammer and/or blasting
Very Hard (R5)	Not scratched or fractured after many blows, hammer rebounds	>16,000 psi	Blasting

Groundwater and Soil Moisture

On July 27, 2018, observed soil moisture conditions within our test pit explorations were generally damp, grading moist at approximately 2-3 feet below the ground surface. Perched groundwater or seepage was not encountered during our site exploration. According to the *Estimated Depth to Groundwater in the Portland, Oregon Area, (United States Geological Survey, Snyder, 2018 website)*, groundwater may be present at an approximate depth of 15 to 25 feet below the ground surface. It is anticipated that groundwater conditions will vary depending on the season, local subsurface conditions, changes in site utilization, and other factors.

Infiltration Testing

Soil infiltration testing was performed using the open-hole method in hand auger HA-2. The approximate locations of the subsurface explorations are indicated on Figures 2 and 3. The test location was pre-saturated prior to testing. During testing the water level was measured to the nearest 0.01 foot (1/8 inch) from a fixed point, and the change in water level was recorded at regular intervals until three successive measurements showing a consistent infiltration rate were achieved.

Table 2 summarizes the results of our infiltration testing. Soils at the test location were observed and sampled in order to characterize the subsurface profile. Tested native soils classified as Lean CLAY (CL). The result of the infiltration testing indicates an infiltration rate that was not measurable in the field (0.0 inches per hour) from 0 to 5.5 feet below the ground surface. The measured rate for this test reflects both vertical and horizontal flow pathways. The infiltration results presented in Table 2 do not incorporate factors of safety.

Table 2 - Summary of Infiltration Test Results

Test Location	Depth (feet)	Soil Type	Infiltration Rate (inches/hr)	Hydraulic Head Range (inches)
HA-2	4.6	CL	0.0	12

Portable Dynamic Cone Penetrometer Testing

On July 27, 2018, GeoPacific Engineering conducted in place strength testing of native soils in two locations, indicated on Figure 2. A portable dynamic cone penetrometer was used to collect data for design of the pavement sections. Table 3 summarizes the results of our PDCP testing. PDCP testing data is attached to this report.

Table 3 - PDCP Field Test Results and Representative CBR Values

Field Test Designation	Material Tested	Depth Interval of Test (inches)	Average Penetration Per Blow (mm)	Correlated CBR Value
PDCP-1	Native SILT	5-45	7	34
PDCP-2	Native SILT	17-47	7	34

CONCLUSIONS AND RECOMMENDATIONS

Our site investigation indicated that the proposed construction is geotechnically feasible, provided that the recommendations of this report are incorporated into the design and construction phases of the project.

In our opinion, the primary geotechnical concern associated with construction at the site is the presence of residual soil and weathered rock. The residual soil exhibits negligible hydraulic conductivity. Based on results of our soil infiltration testing, soils at the subject site exhibited infiltration rates that were not measurable in the field. In our explorations, weathered rock was encountered between 3.8 to 4.2 feet below the ground surface. Generally, at least 5 feet of separation is recommended between infiltration facilities and rock. Based on the subsurface conditions encountered, subsurface infiltration of stormwater is not recommended for this site.

The second geotechnical concern associated with construction at the site is the potential for bedrock at shallow depths across the site. The Boring Lava Formation, which underlies the site, is known for rounded residual boulders, which could hamper excavations, such as for stormwater management facilities and utility trenching. The potential for encountering boulders should be anticipated. The following report sections provide recommendations for site development and construction in accordance with the current applicable codes and local standards of practice.

Site Preparation Recommendations

Areas of proposed construction should be cleared of vegetation, stockpiled soils, and any organic and inorganic debris. Inorganic debris and organic materials from clearing should be removed from the site. Organic-rich soils and root zones should then be stripped from construction areas of the site or where engineered fill is to be placed. Based upon our observations, the residual soil appears to be adequate for reuse as engineered fill provided the soil is adequately aerated to within 2 percent of optimum moisture during site grading.

The depth of stripping of organic soils and topsoil is estimated to be approximately 6 inches across the undeveloped portion of the site. However, depth of organic soil layers may increase in areas not explored. The southeast portion of the site, where the majority of new parking lot expansion is proposed, is densely forested, and deep stripping will likely be required in that area to remove organic material and topsoil. The final depth of soil removal will be determined on the basis of a site inspection after the stripping/excavation has been performed. Stripped topsoil should be removed from the site. Any remaining topsoil should be stockpiled only in designated areas and stripping operations should be observed and documented by the geotechnical engineer or his representative. Deeper stripping to remove large tree roots or other organics may be necessary in portions of the site. It is possible that portions of the soil containing medium to large roots, but not much other organic content, may be remediated by ripping/tilling, root-picking, and recompacting. Prior to placement of engineered fill, subgrade soils should be aerated and recompacted. If unstable soil is encountered in low-lying, high seasonal groundwater areas, crushed aggregate or cement amended stabilization may be necessary.

If encountered, undocumented fills and any subsurface structures (dry wells, basements, driveway and landscaping fill, old utility lines, septic leach fields, etc.) should be completely removed and the excavations backfilled with engineered fill.

Engineered Fill

We anticipate that onsite soils, consisting of SILT and Lean CLAY will largely be suitable for use as engineered fill. All grading for the proposed construction should be performed as engineered grading in accordance with the applicable building code at the time of construction with the exceptions and additions noted herein. Areas proposed for fill placement should be prepared as described in the site preparation section. Surface soils should then be scarified and recompacted prior to placement of structural fill. Proper test frequency and earthwork documentation usually requires daily observation and testing during stripping, rough grading, and placement of engineered fill. Imported fill material must be approved by the geotechnical engineer prior to being imported to the site. Oversize material greater than 12 inches in diameter should not be used in engineered fill.

Engineered fill should be compacted in horizontal lifts not exceeding 8 inches using standard compaction equipment. We recommend that engineered fill be compacted to at least 95 percent of the maximum dry density determined by ASTM D698 (Standard Proctor) or equivalent. Field density testing should conform to ASTM D2922 and D3017, or D1556. All engineered fill should be observed and tested by the project geotechnical engineer or his representative. Typically, one density test is performed for at least every 2 vertical feet of fill placed or every 500 yd^3, whichever

requires more testing. Because testing is performed on an on-call basis, we recommend that the earthwork contractor be held contractually responsible for test scheduling and frequency. Site earthwork will be impacted by soil moisture and shallow groundwater conditions.

Excavating Conditions and Utility Trench Backfill

We anticipate that on-site soils can be excavated using conventional heavy equipment. Maintenance of safe working conditions, including temporary excavation stability, is the responsibility of the contractor. Actual slope inclinations at the time of construction should be determined based on safety requirements and actual soil and groundwater conditions. All temporary cuts in excess of 4 feet in height should be sloped in accordance with U.S. Occupational Safety and Health Administration (OSHA) regulations (29 CFR Part 1926), or be shored. The existing native soils classify as Type B Soil and temporary excavation side slope inclinations as steep as 1H:1V may be assumed for planning purposes. This cut slope inclination is applicable to excavations above the water table only.

Shallow, perched groundwater may be encountered during the wet weather season and should be anticipated in excavations and utility trenches. Vibrations created by traffic and construction equipment may cause some caving and raveling of excavation walls. In such an event, lateral support for the excavation walls should be provided by the contractor to prevent loss of ground support and possible distress to existing or previously constructed structural improvements.
PVC pipe should be installed in accordance with the procedures specified in ASTM D2321 and Oregon City standards. We recommend that structural trench backfill be compacted to at least 95 percent of the maximum dry density obtained by the Standard Proctor (ASTM D698) or equivalent. Initial backfill lift thicknesses for a ¾"-0 crushed aggregate base may need to be as great as 4 feet to reduce the risk of flattening underlying flexible pipe. Subsequent lift thickness should not exceed 1 foot. If imported granular fill material is used, then the lifts for large vibrating plate-compaction equipment (e.g. hoe compactor attachments) may be up to 2 feet, provided that proper compaction is being achieved and each lift is tested. Use of large vibrating compaction equipment should be carefully monitored near existing structures and improvements due to the potential for vibration-induced damage.

Adequate density testing should be performed during construction to verify that the recommended relative compaction is achieved. Typically, at least one density test is taken for every 4 vertical feet of backfill on each 200-lineal-foot section of trench.

Erosion Control Considerations

During our field exploration program, we did not observe soil conditions that would be considered highly susceptible to erosion. In our opinion, the primary concern regarding erosion potential will occur during construction in areas that have been stripped of vegetation. Erosion at the site during construction can be minimized by implementing the project erosion control plan, which should include judicious use of straw wattles, fiber rolls, and silt fences. If used, these erosion control devices should remain in place throughout site preparation and construction.

Erosion and sedimentation of exposed soils can also be minimized by quickly re-vegetating exposed areas of soil, and by staging construction such that large areas of the project site are not

denuded and exposed at the same time. Areas of exposed soil requiring immediate and/or temporary protection against exposure should be covered with either mulch or erosion control netting/blankets. Areas of exposed soil requiring permanent stabilization should be seeded with an approved grass seed mixture, or hydroseeded with an approved seed-mulch-fertilizer mixture.

Wet Weather Earthwork

Soils underlying the site are likely to be moisture sensitive and may be difficult to handle or traverse with construction equipment during periods of wet weather. Earthwork is typically most economical when performed under dry weather conditions. Earthwork performed during the wet-weather season will probably require expensive measures such as cement treatment or imported granular material to compact areas where fill may be proposed to the recommended engineering specifications. If earthwork is to be performed or fill is to be placed in wet weather or under wet conditions when soil moisture content is difficult to control, the following recommendations should be incorporated into the contract specifications.

- Earthwork should be performed in small areas to minimize exposure to wet weather. Excavation or the removal of unsuitable soils should be followed promptly by the placement and compaction of clean engineered fill. The size and type of construction equipment used may have to be limited to prevent soil disturbance. Under some circumstances, it may be necessary to excavate soils with a backhoe to minimize subgrade disturbance caused by equipment traffic;
- The ground surface within the construction area should be graded to promote run-off of surface water and to prevent the ponding of water;
- Material used as engineered fill should consist of clean, granular soil containing less than 5 percent passing the No. 200 sieve. The fines should be non-plastic. Alternatively, cement treatment of on-site soils may be performed to facilitate wet weather placement;
- The ground surface within the construction area should be sealed by a smooth drum vibratory roller, or equivalent, and under no circumstances should be left uncompacted and exposed to moisture. Soils which become too wet for compaction should be removed and replaced with clean granular materials;
- Excavation and placement of fill should be observed by the geotechnical engineer to verify that all unsuitable materials are removed and suitable compaction and site drainage is achieved; and
- Geotextile silt fences, straw wattles, and fiber rolls should be strategically located to control erosion.

If cement or lime treatment is used to facilitate wet weather construction, GeoPacific should be contacted to provide additional recommendations and field monitoring.

Flexible Pavement Design – Private Parking and Drive Areas – 20 Year Design Life

We understand that development at the site will include construction of private parking and drive areas inside the project. Based on the results of PDCP testing, the subgrade exhibits an average CBR value of 31 in dry weather conditions. For the new private pavement sections we

conservatively assume that the subgrade will exhibit a resilient modulus of at least 9,000, which correlates to a CBR value of 6. We assumed an anticipated 18-kip ESAL count of approximately 75,000 over 20 years, accounting for projected population growth. Our design considers 550 trips per day with 3 percent heavy trucks. If higher amounts of truck traffic are expected for the site, GeoPacific should be consulted to provided revised pavement design recommendations. Table 4 presents our flexible pavement design input parameters. Table 5 presents our recommended minimum dry-weather pavement section for the proposed roadway, supporting 20 years of vehicle traffic per Oregon City standards. Pavement design calculations are attached to this report.

Table 4 – Flexible Pavement Section Design Input Parameters for New Private Pavement Sections

Input Parameter	Design Value
18-kip ESAL Initial Performance Period (20 Years)	75,000
Initial Serviceability	4.2
Terminal Serviceability	2.5
Reliability Level	85 Percent
Overall Standard Deviation	0.5
Roadbed Soil Resilient Modulus (PSI)	9,000
Structural Number	**2.06**

Table 5 - Recommended Minimum Dry-Weather Pavement Section for New Private Pavement Sections

Material Layer	Private Pavement (inches)	Structural Coefficient	Compaction Standard
Asphaltic Concrete (AC)	3	.42	91%/ 92% of Rice Density AASHTO T-209
Crushed Aggregate Base ¾"-0 (leveling course)	2	.10	95% of Modified Proctor AASHTO T-180
Crushed Aggregate Base 1½"-0	8	.10	95% of Modified Proctor AASHTO T-180
Subgrade	12	9,000 PSI	95% of Standard Proctor AASHTO T-99 or equivalent
Total Calculated Structural Number		**2.26**	

The subgrade should be ripped or tilled to a depth of 12 inches, moisture conditioned, root-picked, and compacted in-place prior to the placement of crushed aggregate base for pavement. Any pockets of organic debris or loose fill encountered during ripping or tilling should be removed and replaced with engineered fill (see *Site Preparation Recommendations* section). In order to verify subgrade strength, we recommend proof-rolling directly on subgrade with a loaded dump truck during dry weather and on top of base course in wet weather. Soft areas that pump, rut, or weave should be stabilized prior to paving.

If pavement areas are to be constructed during wet weather, the subgrade and construction plan should be reviewed by the project geotechnical engineer at the time of construction so that condition specific recommendations can be provided. The moisture sensitive subgrade soils make

the site a difficult wet weather construction project. General recommendations for wet weather pavement sections are provided below.

During placement of pavement section materials, density testing should be performed to verify compliance with project specifications. Generally, one subgrade, one base course, and one asphalt compaction test is performed for every 100 to 200 linear feet of paving.

Wet Weather Construction Pavement Section

This section presents our recommendations for wet weather pavement section and construction for new pavement sections at the project. These wet weather pavement section recommendations are intended for use in situations where it is not feasible to compact the subgrade soils to Oregon Cities requirements, due to wet subgrade soil conditions, and/or construction during wet weather.

Based on our site review, we recommend a wet weather section with a minimum subgrade deepening of 6 to 12 inches to accommodate a working subbase of additional 1½"-0 crushed rock. Geotextile fabric, Mirafi 500x or equivalent, should be placed on subgrade soils prior to placement of base rock.

In some instances it may be preferable to use a subbase material in combination with overexcavation and increasing the thickness of the rock section. GeoPacific should be consulted for additional recommendations regarding use of additional subbase in wet weather pavement sections if it is desired to pursue this alternative. Cement treatment of the subgrade may also be considered instead of overexcavation. For planning purposes, we anticipate that treatment of the onsite soils would involve mixing cement powder to approximately 6 percent cement content and a mixing depth on the order of 12 to 18 inches.

With implementation of the above recommendations, it is our opinion that the resulting pavement section will provide equivalent or greater structural strength than the dry weather pavement section currently planned. However, it should be noted that construction in wet weather is risky and the performance of pavement subgrades depend on a number of factors including the weather conditions, the contractor's methods, and the amount of traffic the road is subjected to. There is a potential that soft spots may develop even with implementation of the wet weather provisions recommended in this letter. If soft spots in the subgrade are identified during roadway excavation, or develop prior to paving, the soft spots should be overexcavated and backfilled with additional crushed rock.

During subgrade excavation, care should be taken to avoid disturbing the subgrade soils. Removals should be performed using an excavator with a smooth-bladed bucket. Truck traffic should be limited until an adequate working surface has been established. We suggest that the crushed rock be spread using bulldozer equipment rather than dump trucks, to reduce the amount of traffic and potential disturbance of subgrade soils.

Care should be taken to avoid overcompaction of the base course materials, which could create pumping, unstable subgrade soil conditions. Heavy and/or vibratory compaction efforts should be applied with caution. Following placement and compaction of the crushed rock to project

specifications (95 percent of Modified Proctor), a finish proof-roll should be performed before paving.

The above recommendations are subject to field verification. GeoPacific should be on-site during construction to verify subgrade strength and to take density tests on the engineered fill, base rock and asphaltic pavement materials.

Stormwater Management

We understand that it is desired to incorporate subsurface infiltration of stormwater into the design of stormwater management facilities. However, during our geotechnical investigation of the site, we observed infiltration rates that were negligible (0.0 inches per hour), and encountered weathered rock at relatively shallow depths across the site. In our explorations, weathered rock was encountered between 3.8 to 4.2 feet below the ground surface. Generally, at least 5 feet of separation is recommended between infiltration facilities and rock.

Based on the subsurface conditions encountered, subsurface infiltration of stormwater is not recommended for this site. Our opinion is based on low measured infiltration rates and the fact that the native soil layer overlying weathered rock is generally less than 5 feet thick.

Stormwater management systems should be constructed as specified by the designer and/or in accordance with jurisdictional design manuals. Stormwater exceeding storage capacities will need to be directed to a suitable surface discharge location, away from structures. Stormwater management systems may need to include overflow outlets, surface water control measures and/or be connected to the street storm drain system, if available. In no case should uncontrolled stormwater be allowed to flow over slopes.

Subsurface stormwater disposal systems have the potential to affect groundwater quality since they provide a more direct pathway to groundwater aquifers. Consequently, disposal systems should be constructed and maintained in accordance with Oregon Department of Environmental Quality (DEQ) requirements for groundwater protection. Systems receiving runoff from pavement areas should include water quality elements; such as oil traps, filters, or similar measures.

UNCERTAINTIES AND LIMITATIONS

Infiltration test methods and procedures attempt to simulate the as-built conditions of a planned subsurface disposal system. However, due to natural variations in soil properties, actual infiltration rates may vary from the measured and/or recommended design rates. Storm events in excess of the design event are possible, and systems should be constructed such that potential overflow is discharged in a controlled manner away from structures.

We have prepared this report for the owner and their consultants for use of this project only. This report should be provided in its entirety to prospective contractors for bidding and estimating purposes; however, the conclusions and interpretations presented in this report should not be construed as a warranty of the subsurface conditions. Experience has shown that soil and groundwater conditions can vary significantly over small distances. Inconsistent conditions can occur between explorations that may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, GeoPacific should be notified for review of the recommendations of this report, and revision of such if necessary.

Sufficient geotechnical monitoring, testing and consultation should be provided during construction to confirm that the conditions encountered are consistent with those indicated by explorations. The checklist attached to this report outlines recommended geotechnical observations and testing for the project. Recommendations for design changes will be provided should conditions revealed during construction differ from those anticipated, and to verify that the geotechnical aspects of construction comply with the contract plans and specifications.

Within the limitations of scope, schedule and budget, GeoPacific attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology at the time the report was prepared. No warranty, expressed or implied, is made. The scope of our work did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous or toxic substances in the soil, surface water, or groundwater at this site.

We appreciate this opportunity to be of service.

Sincerely,

GEOPACIFIC ENGINEERING, IN

Tom Torkelson

Thomas Torkelson, E.I.T
Engineering Staff

REGISTERED PROFESSIONAL ENGINEER 90013PE OREGON MAY 22, 2015 BENJAMIN G. ANDERSON Expires: 12/31/19

Benjamin G. Anderson, P.E.
Senior Engineer

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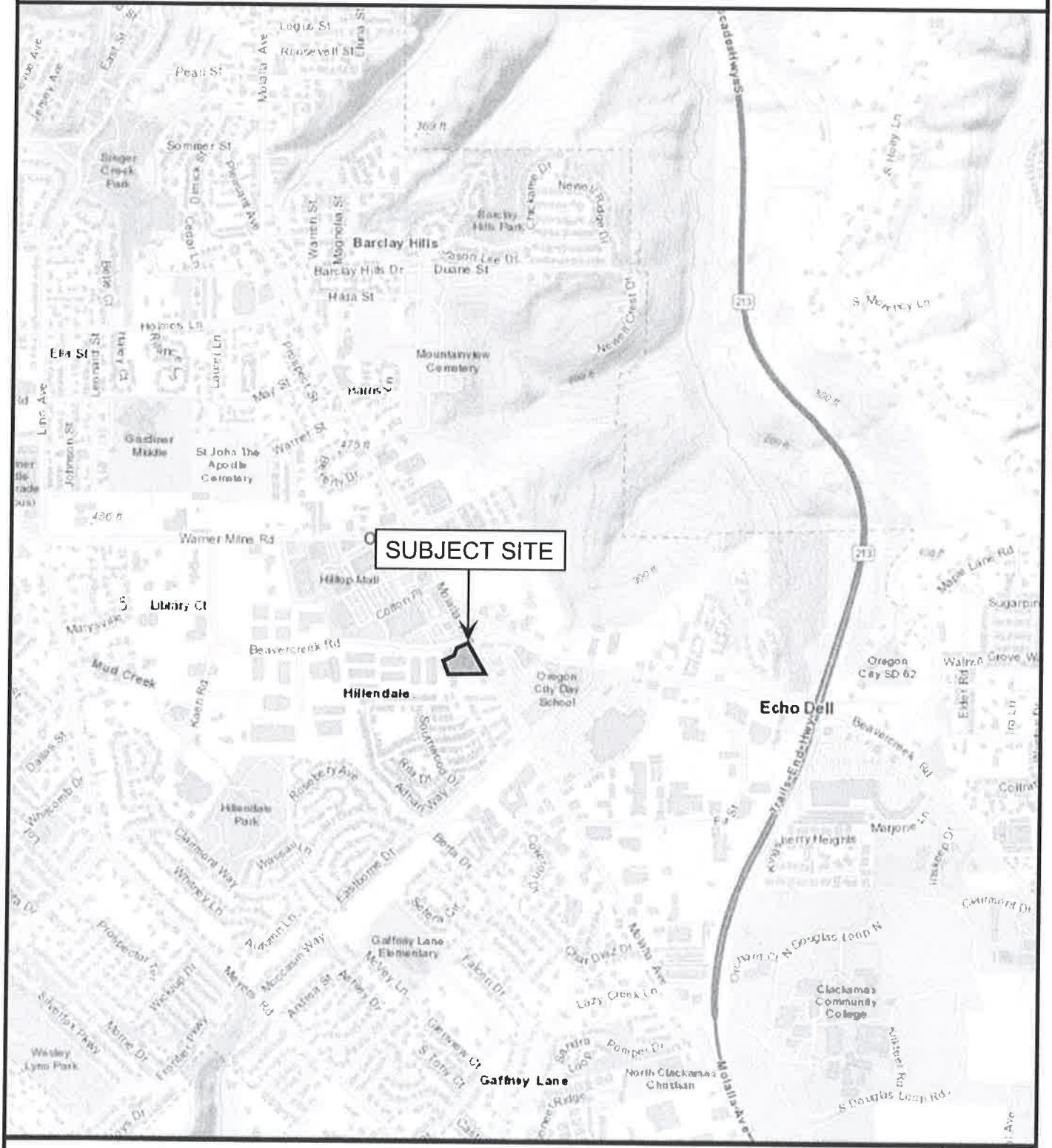
FIGURES

GeoPacific Engineering, Inc.
14835 SW 72nd Avenue
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 941-9281

SITE VICINITY MAP



Base map: DOGAMI HAZVU Maps 2018
Date: 8/09/2018
Drawn by: TJT

1:24,000
0 0.13 0.25 0.5 mi
0 0.23 0.45 0.9 km

North

Project: Marquis Oregon City Parking Lot Oregon City, Oregon 97045	Project No. 18-4984	FIGURE 1

GeoPacific Engineering, Inc.
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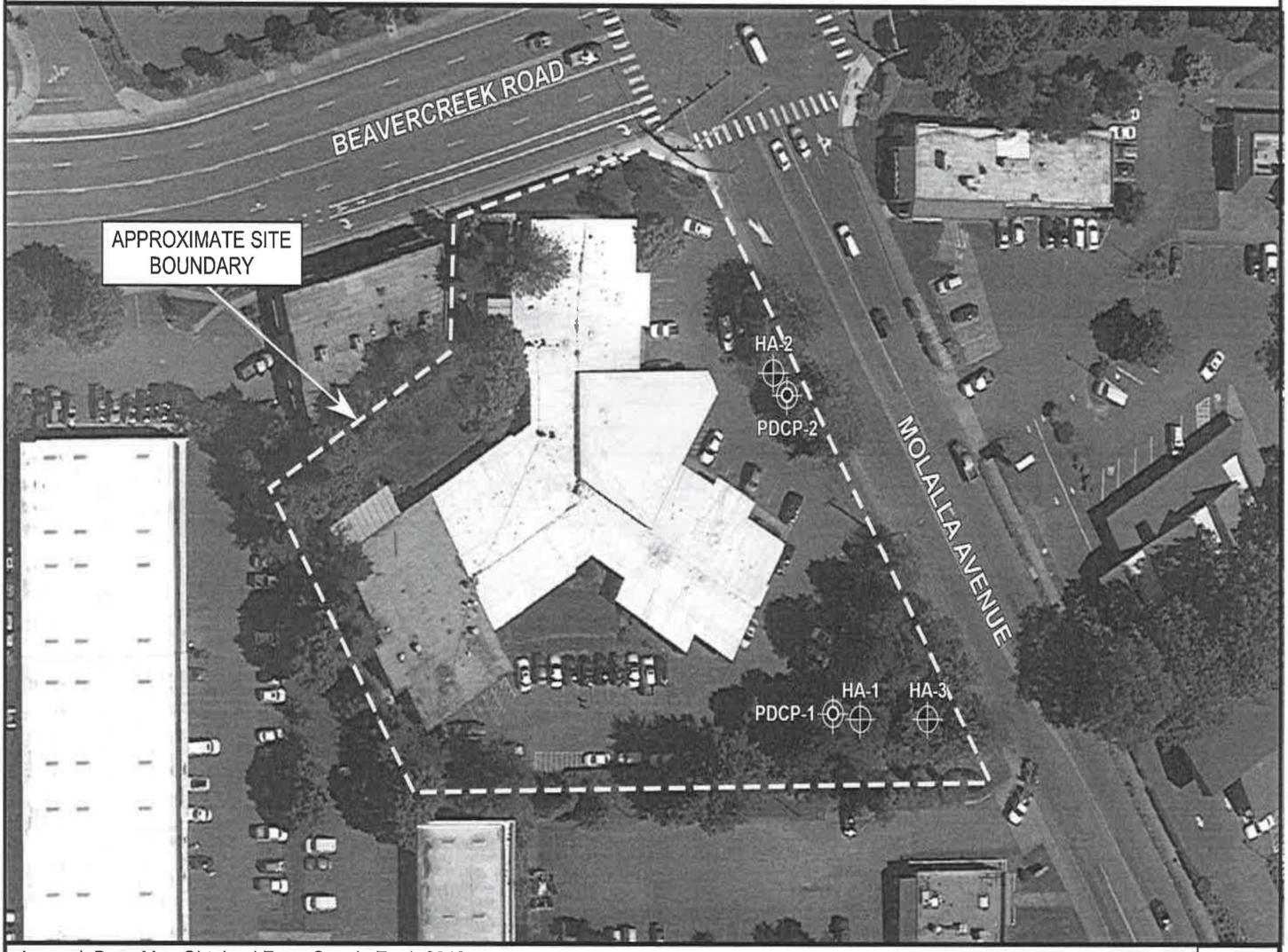
SITE AERIAL AND EXPLORATION LOCATIONS



Legend: Base Map Obtained From Google Earth 2018

HA-1 Hand Auger Boring Designation and Approximate Location

PDCP-1 PDCP Testing Designation and Approximate Location

APPROXIMATE SCALE (FEET)
40 0 40 80

Drawn by: TJT
Date: 8/09/2018

North

Project: Marquis Oregon City Parking Lot
1680 Molalla Avenue
Oregon City, Oregon 97045

Project No. 18-4984

FIGURE 2

GeoPacific Engineering, Inc.
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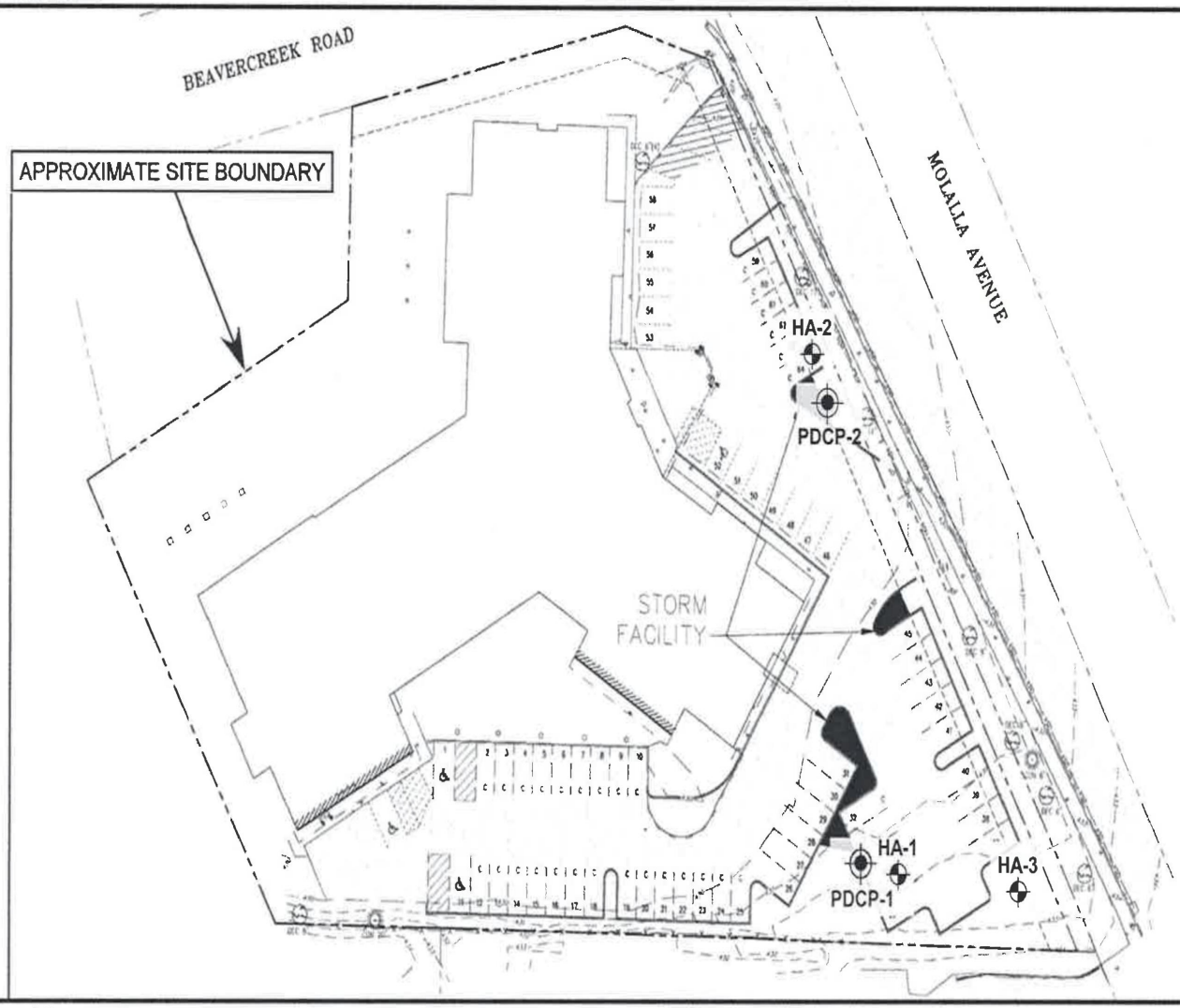
SITE PLAN AND EXPLORATION LOCATIONS



Legend: Base Map Provided By Emerio Designs

HA-1 Hand Auger Boring Designation and Approximate Location

PDCP-1 PDCP Designation and Approximate Location

APPROXIMATE SCALE (FEET)
30 0 30 60

Drawn by: TJT
Date: 8/09/2018

North

Project: Marquis Oregon City Parking Lot
1680 Molalla Avenue
Oregon City, Oregon 97045

Project No. 18-4984

FIGURE 3

EXPLORATION LOGS

GeoPacific Engineering, Inc.
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HAND AUGER LOG

Project:	Project No.	Hand Auger No.
Marquis Oregon City Parking Lot 1680 Molalla Avenue Oregon City, Oregon	18-4984	**HA-1**

Depth (ft)	Pocket Penetrometer (tons/ft²)	Sample Type	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Water Bearing Zone	Material Description
						SILT (ML), brown, medium stiff, moderately organic, trace fine and medium roots damp, surfaced with pine needles and leaves. (Topsoil).
1						Lean CLAY (CL), reddish brown, stiff to very stiff, with trace fragments of weathered rock, trace black and orange staining, damp. (Residual Soil).
						1 inch thick layer of gray ash 1.5 feet bgs.
2						
						Grades to moist and with more pronounced angular basalt at 2.2 feet bgs.
3						
4						Highly weathered BASALT, light to dark gray, extremely soft (R0), reddish-brown matrix of silty clay, black staining, moist. (Boring Lava)
5						Hand auger terminated at 4.6 feet bgs due to refusal on weathered rock. No seepage or groundwater encountered No caving observed
6						
7						
8						

LEGEND

Bag Sample

Bucket Sample


Shelby Tube Sample


Seepage


Water Bearing Zone


Water Level at Abandonment

Date Excavated: 07/27/2018

Logged By: TJT

Surface Elevation:

GeoPacific Engineering, Inc.
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HAND AUGER LOG

Project:	Project No.	Hand Auger No.
Marquis Oregon City Parking Lot 1680 Molalla Avenue Oregon City, Oregon	18-4984	**HA-2**

Depth (ft)	Pocket Penetrometer (tons/ft²)	Sample Type	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Water Bearing Zone	Material Description
1						SILT (ML), brown, medium stiff, moderately organic, contains subrounded to angular gravel, with trace fine and medium roots, damp, 6 inches of topsoil developed on the surface, surfaced with grass. (Undocumented Fill).
2						Lean CLAY (CL), reddish brown, stiff to very stiff, with trace fragments of weathered rock, trace black and orange staining, damp. (Residual Soil). Grades to with more pronounced angular basalt at 2.0 feet bgs.
3						
4						Grades to moist at 3.5 feet bgs.
5						Highly weathered BASALT, light to dark gray, extremely soft (R0), reddish-brown matrix of silty clay, black staining, moist. (Boring Lava). Infiltration testing conducted at 4.6 feet bgs. Measured rate = 0.0 inches/hour
6						Hand auger terminated at 5,5 feet bgs due to refusal on weathered rock. Infiltration testing conducted at 4.6 feet below the ground surface. Measured Rate = 0.0 inches per hour. No seepage or groundwater encountered No caving observed
7						
8						

LEGEND

Bag Sample

Bucket Sample


Shelby Tube Sample


Seepage


Water Bearing Zone


Water Level at Abandonment

Date Excavated: 07/27/2018

Logged By: TJT

Surface Elevation:

GeoPacific Engineering, Inc.
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Tel: (503) 598-8445 Fax: (503) 941-9281

HAND AUGER LOG

Project:	Project No.	Hand Auger No.
Marquis Oregon City Parking Lot 1680 Molalla Avenue Oregon City, Oregon	18-4984	**HA-3**

Depth (ft)	Pocket Penetrometer (tons/ft²)	Sample Type	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Water Bearing Zone	Material Description
						SILT (ML), brown, medium stiff, moderately organic, trace fine and medium roots damp, surfaced with pine needles and leaves. (Topsoil).
1						Lean CLAY (CL), reddish brown, stiff to very stiff, with trace fragments of weathered rock, trace black and orange staining, damp. (Residual Soil).
						1 inch thick layer of gray ash 1.5 feet bgs.
2						Grades to with more pronounced angular basalt at 2.0 feet bgs.
3						Grades to moist at 3.0 feet bgs.
4						Highly weathered BASALT, light to dark gray, extremely soft (R0), reddish-brown matrix of silty clay, black staining, moist. (Boring Lava).
5						Hand auger terminated at 4.2 feet bgs due to refusal on residual soil. No seepage or groundwater encountered No caving observed
6						
7						
8						

LEGEND

Bag Sample

Bucket Sample


Shelby Tube Sample


Seepage


Water Bearing Zone


Water Level at Abandonment

Date Excavated: 07/27/2018

Logged By: TJT

Surface Elevation:

PDCP TESTING DATA

GeoPacific Engineering, Inc.
Real-World Geotechnical Solutions
Investigiation, Design, Construction Support

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Portable Dynamic Cone Penetrometer (PDCP) / California Bearing Ratio (CBR) Correlation

Project: Marquis Parking Lot **Date: 07.27.2018** **Existing A/C Thickness: none** **Test:** PDCP-1
Project No. 18-4984 **Engineer: TJT** **Existing Base Aggregate Thickness: none**
Location: South of Existing Parking Lot **Subgrade: Native Lean CLAY** **Notes:** Location on Figure 2

Length of shaft	Height (from ref) at start	Depth below ground at start	Length of shaft	Height (from ref) at start	Depth below ground at start
mm	mm	mm	in	in	in
1320	1320	110	52.0	48.0	4.3

Blows	Height(from ref) in	Height(from ref) mm	Depth (below ground) mm	Depth (inches below ground)	Depth (feet below ground)	mm/blow	CBR
1	4.92	125	125	4.92	0.41	15.00	14.1
5	6.10	155	155	6.10	0.51	6.00	39.3
5	6.89	175	175	6.89	0.57	4.00	61.8
5	8.07	205	205	8.07	0.67	6.00	39.3
5	8.86	225	225	8.86	0.74	4.00	61.8
10	10.83	275	275	10.83	0.90	5.00	48.1
10	12.80	325	325	12.80	1.07	5.00	48.1
10	16.34	415	415	16.34	1.36	9.00	24.9
10	20.87	530	530	20.87	1.74	11.50	18.9
10	24.80	630	630	24.80	2.07	10.00	22.2
10	28.15	715	715	28.15	2.35	8.50	26.6
10	30.71	780	780	30.71	2.56	6.50	35.9
10	32.48	825	825	32.48	2.71	4.50	54.2
10	34.65	880	880	34.65	2.89	5.50	43.3
10	37.01	940	940	37.01	3.08	6.00	39.3
10	39.76	1010	1010	39.76	3.31	7.00	33.0
10	41.93	1065	1065	41.93	3.49	5.50	43.3
10	44.49	1130	1130	44.49	3.71	6.50	35.9
					Average	6.97	38.3

Measurements are after each blow. Mm/blow is difference between previous and current blow

Portable Dynamic Cone Penetrometer (PDCP) / California Bearing Ratio (CBR) Correlation

Project: Marquis Parking Lot **Date: 07.27.2018** **Existing A/C Thickness: none** **Test:** PDCP-2
Project No. 18-4984 **Engineer: TJT** **Existing Base Aggregate Thickness: none**
Location: East of Existing Parking Lot **Subgrade: Native Lean CLAY** **Notes:** Location on Figure 2

Length of shaft	Height (from ref) at start	Depth below ground at start	Length of shaft	Height (from ref) at start	Depth below ground at start
mm	mm	mm	in	in	in
1320	1320	375	52.0	48.0	14.8

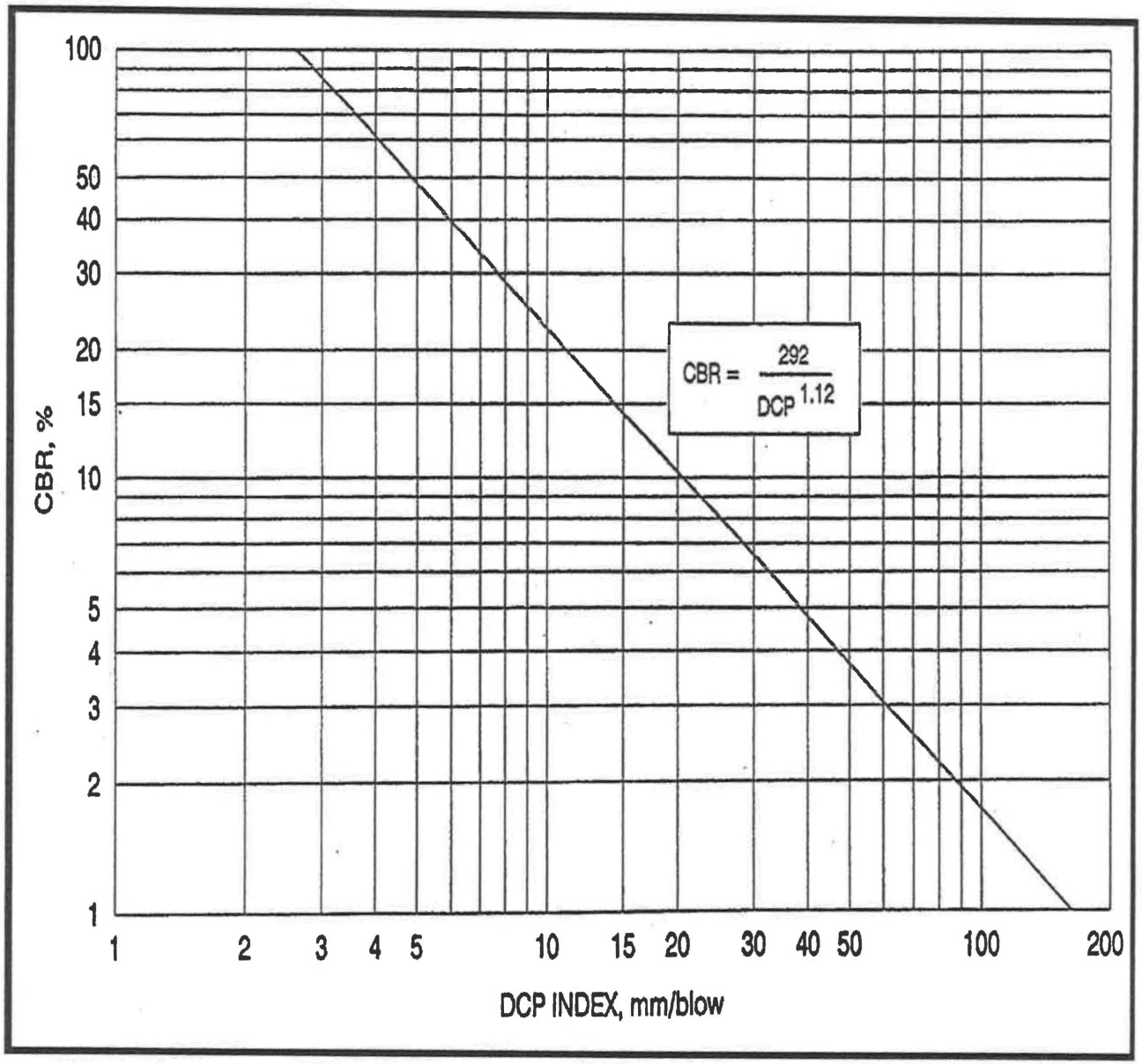
Blows	Height(from ref) in	Height(from ref) mm	Depth (below ground) mm	Depth (inches below ground)	Depth (feet below ground)	mm/blow	CBR
5	17.13	435	435	17.13	1.43	12.00	18.1
5	18.50	470	470	18.50	1.54	7.00	33.0
5	19.88	505	505	19.88	1.66	7.00	33.0
5	21.26	540	540	21.26	1.77	7.00	33.0
5	22.24	565	565	22.24	1.85	5.00	48.1
10	24.80	630	630	24.80	2.07	6.50	35.9
10	27.36	695	695	27.36	2.28	6.50	35.9
10	30.31	770	770	30.31	2.53	7.50	30.6
10	32.68	830	830	32.68	2.72	6.00	39.3
10	34.65	880	880	34.65	2.89	5.00	48.1
10	36.42	925	925	36.42	3.03	4.50	54.2
10	38.78	985	985	38.78	3.23	6.00	39.3
10	41.93	1065	1065	41.93	3.49	8.00	28.4
5	43.90	1115	1115	43.90	3.66	10.00	22.2
5	46.06	1170	1170	46.06	3.84	11.00	19.9
3	47.44	1205	1205	47.44	3.95	11.67	18.6
					Average	6.95	33.6

Measurements are after each blow. Mm/blow is difference between previous and current blow

DCP Index mm/blow	CBR %	DCP Index mm/blow	CBR %
<3	100	51	3.6
3	80	52	3.5
4	60	53-54	3.4
5	50	55	3.3
6	40	56-57	3.2
7	35	58	3.1
8	30	59-60	3.0
9	25	61-62	2.9
10-11	20	63-64	2.8
12	18	65-66	2.7
13	16	67-68	2.6
14	15	69-71	2.5
15	14	72-74	2.4
16	13	75-77	2.3
17	12	78-80	2.2
18-19	11	81-83	2.1
20-21	10	84-87	2.0
22-23	9	88-91	1.9
24-26	8	92-96	1.8
27-29	7	97-101	1.7
30-34	6	102-107	1.6
35-38	5	108-114	1.5
39	4.8	115-121	1.4
40	4.7	122-130	1.3
41	4.6	131-140	1.2
42	4.4	141-152	1.1
43	4.3	153-166	1.0
44	4.2	166-183	0.9
45	4.1	184-205	0.8
46	4.0	206-233	0.7
47	3.9	234-271	0.6
48	3.8	272-324	0.5
49-50	3.7	>324	<0.5

Figure 4: Tabulated Correlation of CBR versus DCP Index

(8)


CBR, %
100
50
40
30
20
15
10
5
4
3
2
1
1
2
3
4
5
10
15
20
30
40
50
100
200
DCP INDEX, mm/blow
CBR = 292 / DCP 1.12

Appendix C:

APPENDIX: C(1)

WES BMP Sizing Software Version 1.6.0.2, May 2018

WES BMP Sizing Report

Project Information

Project Name	Marquis - Parking Lot Expansion
Project Type	Addition
Location	1680 Molalla Ave, Oregon City, OR 97045
Stormwater Management Area	4679
Project Applicant	Scott Miller
Jurisdiction	OutofDistrict

Drainage Management Area

Name	Area (sq-ft)	Pre-Project Cover	Post-Project Cover	DMA Soil Type	BMP
B1	768	Forested	ConventionalConcrete	C	RG-A
B2	860	Forested	ConventionalConcrete	C	RG-2
B3	970	Forested	ConventionalConcrete	C	RG-3
B4	2,903	Forested	ConventionalConcrete	C	RG-4

LID Facility Sizing Details

LID ID	Design Criteria	BMP Type	Facility Soil Type	Minimum Area (sq-ft)	Planned Areas (sq-ft)	Orifice Diameter (in)
RG-A	FlowControlAndTreatment	Rain Garden - Filtration	Lined	115.2	137.0	0.2
RG-2	FlowControlAndTreatment	Rain Garden - Filtration	Lined	129.0	130.0	0.2
RG-3	FlowControlAndTreatment	Rain Garden - Filtration	Lined	145.5	151.0	0.2
RG-4	FlowControlAndTreatment	Rain Garden - Filtration	Lined	435.5	453.0	0.3

Pond Sizing Details

1. FCWQT = Flow control and water quality treatment, WQT = Water quality treatment only

2. Depth is measured from the bottom of the facility and includes the three feet of media (drain rock, separation layer and growing media).

3. Maximum volume of the facility. Includes the volume occupied by the media at the bottom of the facility.

4. Maximum water storage volume of the facility. Includes water storage in the three feet of soil media assuming a 40 percent porosity.

Basin Area Tabulated Data
Marquis, Parking Lot Expansion

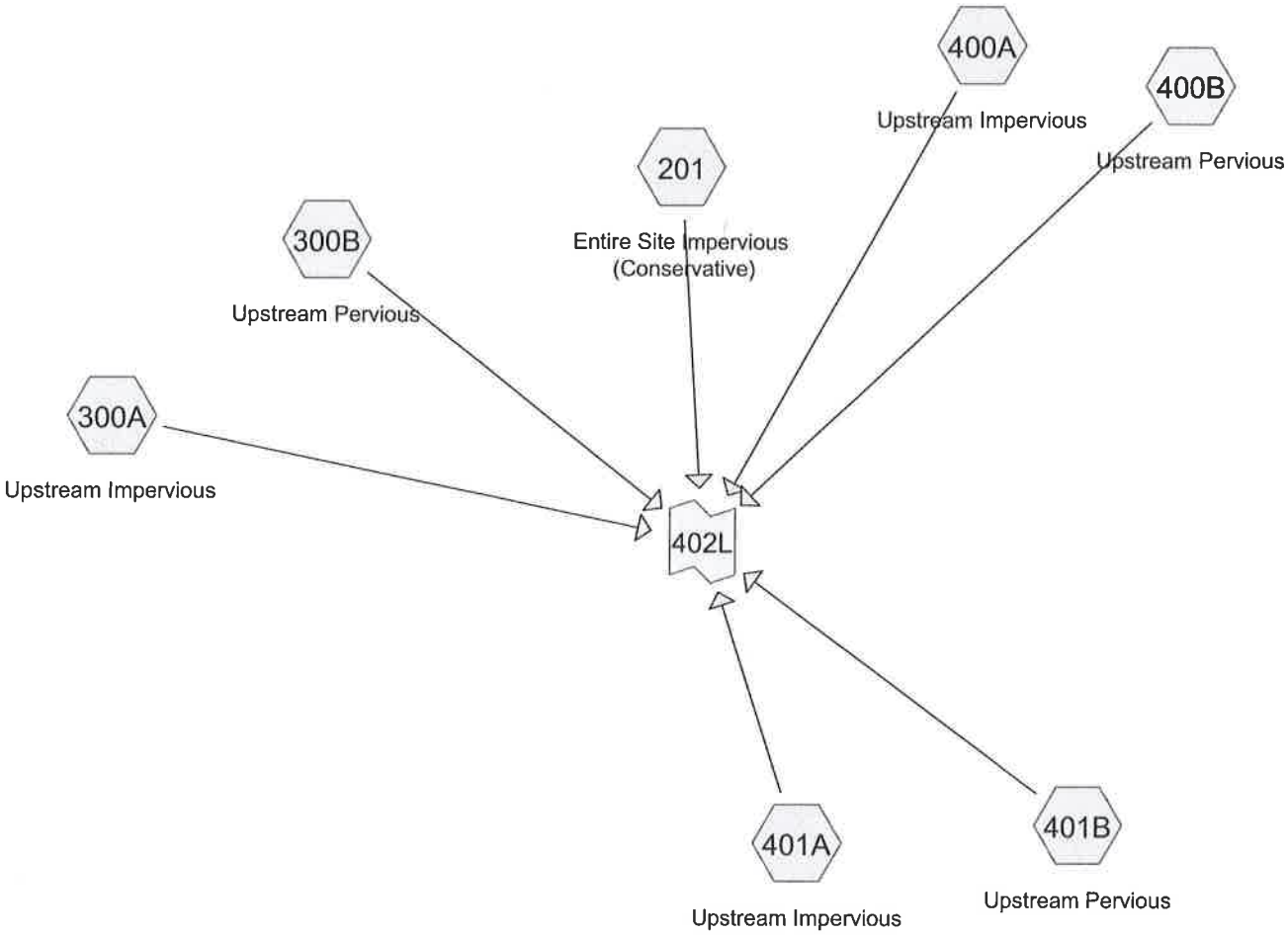
Appendix: C(2)

Basin #	Name	Total Area SF	Total Area Acres	Qty of Lots	Lot Impervious SF	ROW/Tract Imp SF	Total Impervious SF	Total Pervious (Calc'd) SF
201	Onsite Post-Developed	80,150	1.84	1	2,640	77,510	80,150	0
300	Upstream Basin	4,247,536	97.51	150	396,000	347,520	743,520	3,504,016
400	Downstream Basin	797,148	18.30	73	192,720	107,350	300,070	497,078
401	Downstream Basin	668,646	15.35	13	34,320	184,400	218,720	449,926

APPENDIX: C(3)

Downstream
Conveyance Analysis

25-Year Flow Rates



Subcat Reach Pond Link

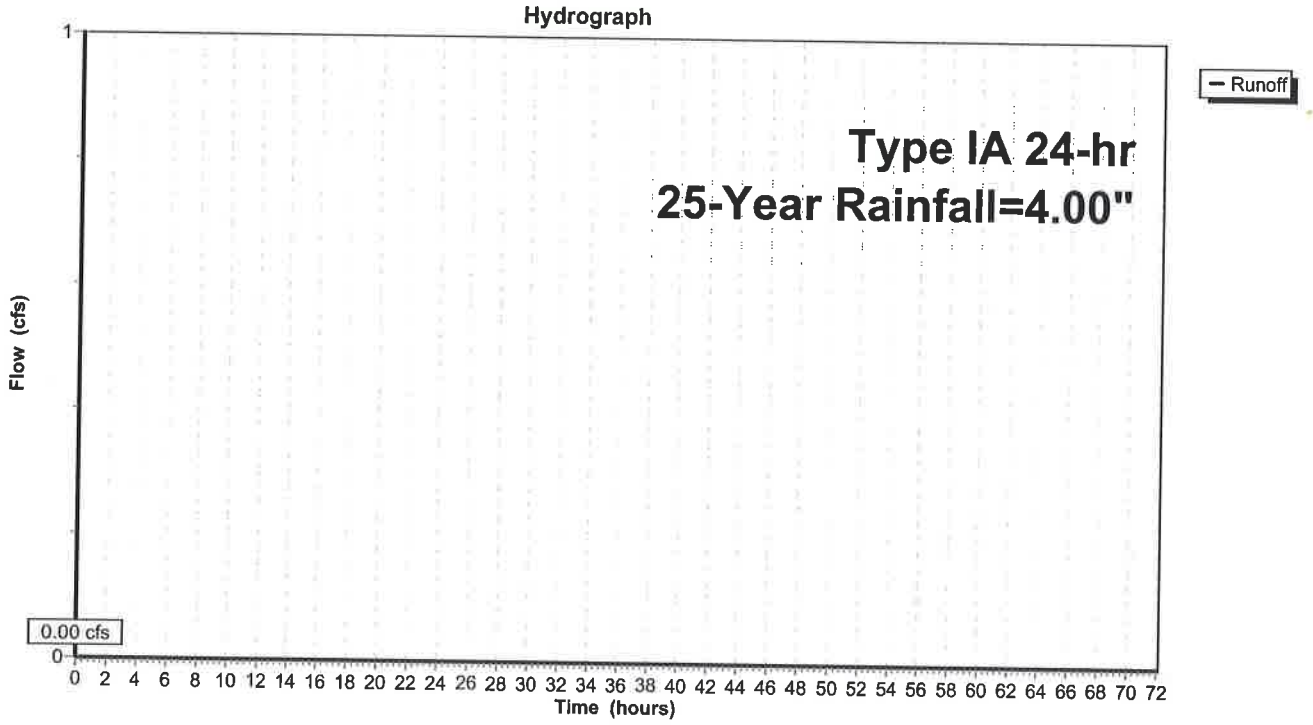
Routing Diagram for 082-020-Marquis Oregon
Prepared by Emerio Design, Printed 1/23/2019
HydroCAD® 10.00-24 s/n 04804 © 2018 HydroCAD Software Solutions LLC

Summary for Subcatchment 201: Entire Site Impervious (Conservative)

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25-Year Rainfall=4.00"

Subcatchment 201: Entire Site Impervious (Conservative)



Summary for Subcatchment 300A: Upstream Impervious

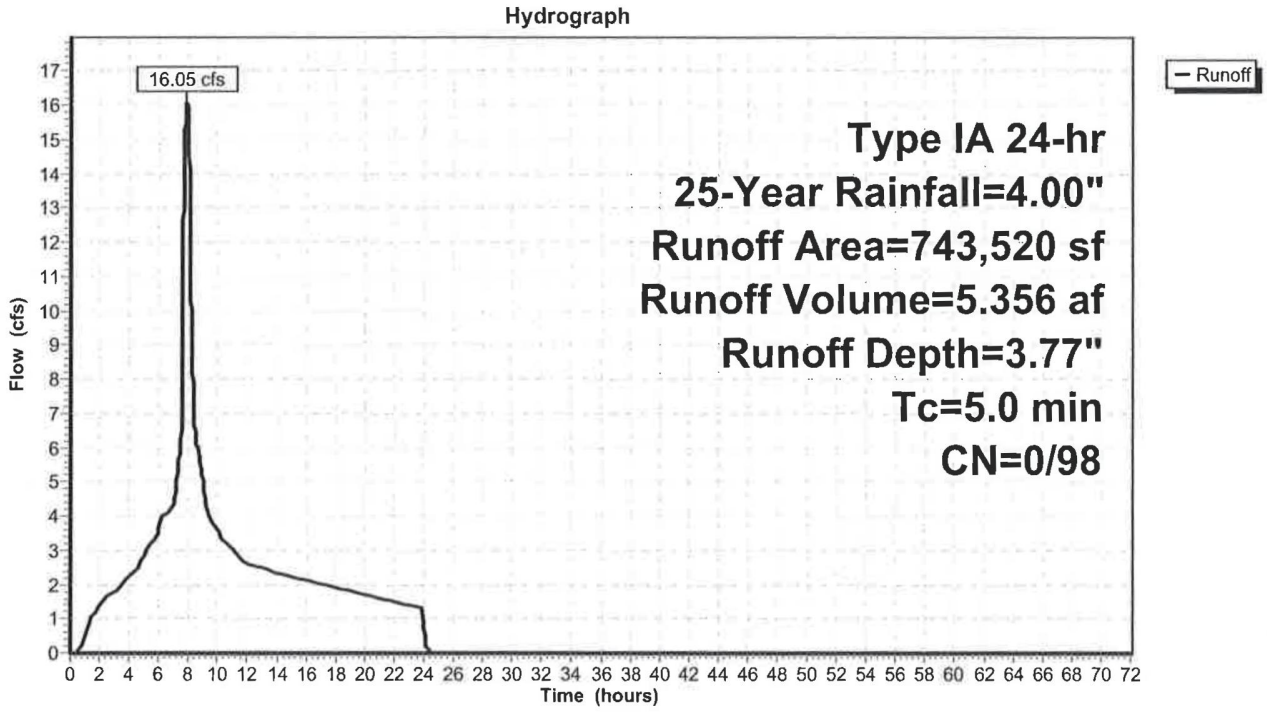
Runoff = 16.05 cfs @ 7.88 hrs, Volume= 5.356 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25-Year Rainfall=4.00"

	Area (sf)	CN	Description
*	743,520	98	
	743,520	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 300A: Upstream Impervious



Summary for Subcatchment 300B: Upstream Pervious

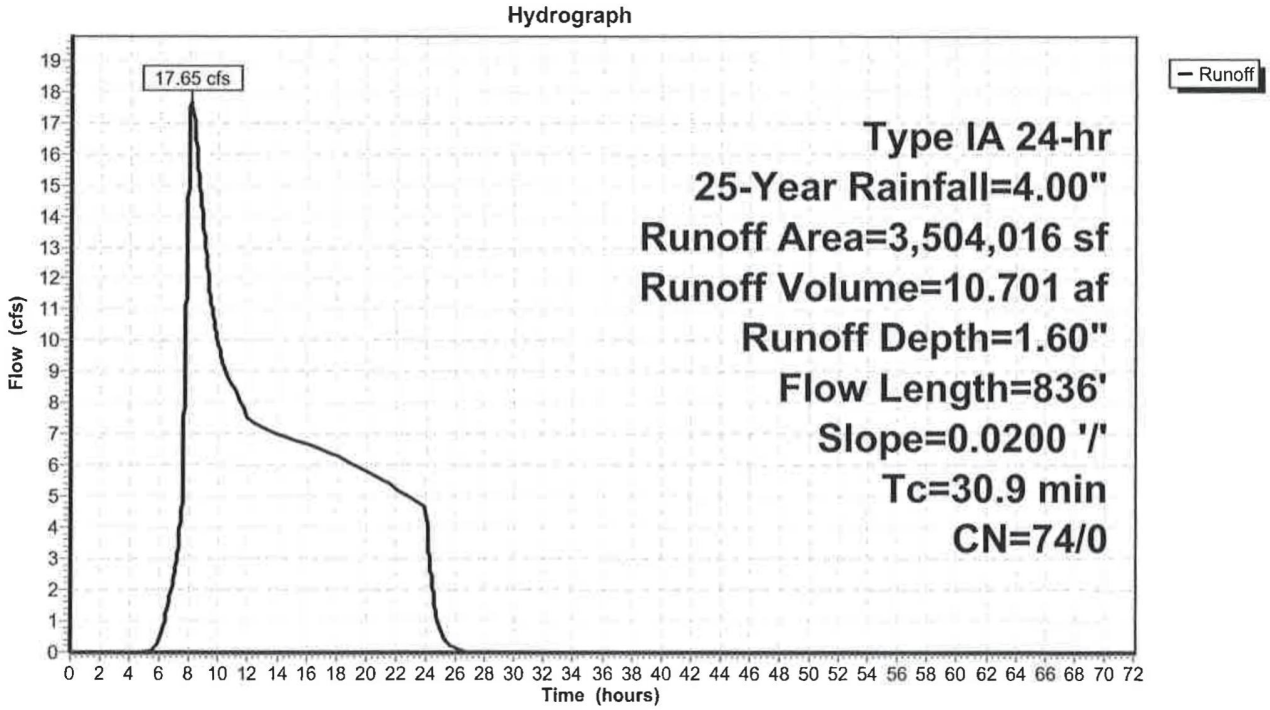
Runoff = 17.65 cfs @ 8.10 hrs, Volume= 10.701 af, Depth= 1.60"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25-Year Rainfall=4.00"

	Area (sf)	CN	Description
*	3,504,016	74	
	3,504,016	74	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.7	300	0.0200	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
4.2	536	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
30.9	836	Total			

Subcatchment 300B: Upstream Pervious



Summary for Subcatchment 400A: Upstream Impervious

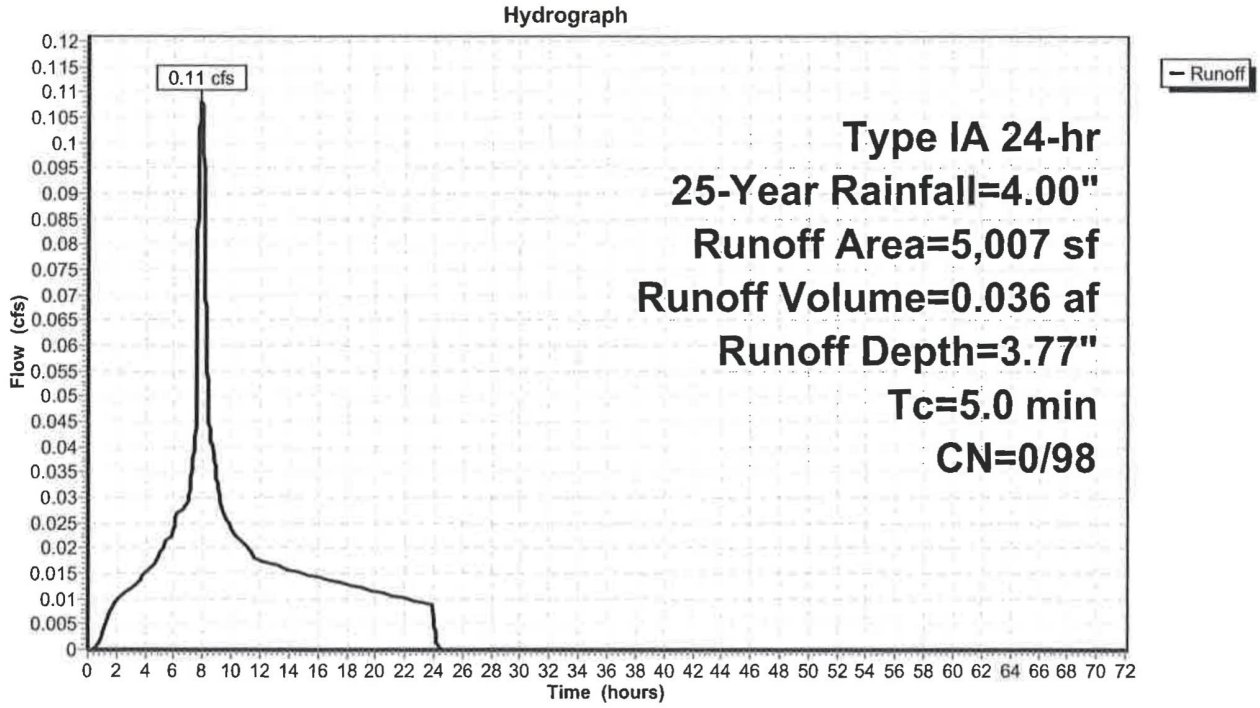
Runoff = 0.11 cfs @ 7.88 hrs, Volume= 0.036 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25-Year Rainfall=4.00"

	Area (sf)	CN	Description
*	5,007	98	
	5,007	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 400A: Upstream Impervious



Summary for Subcatchment 400B: Upstream Pervious

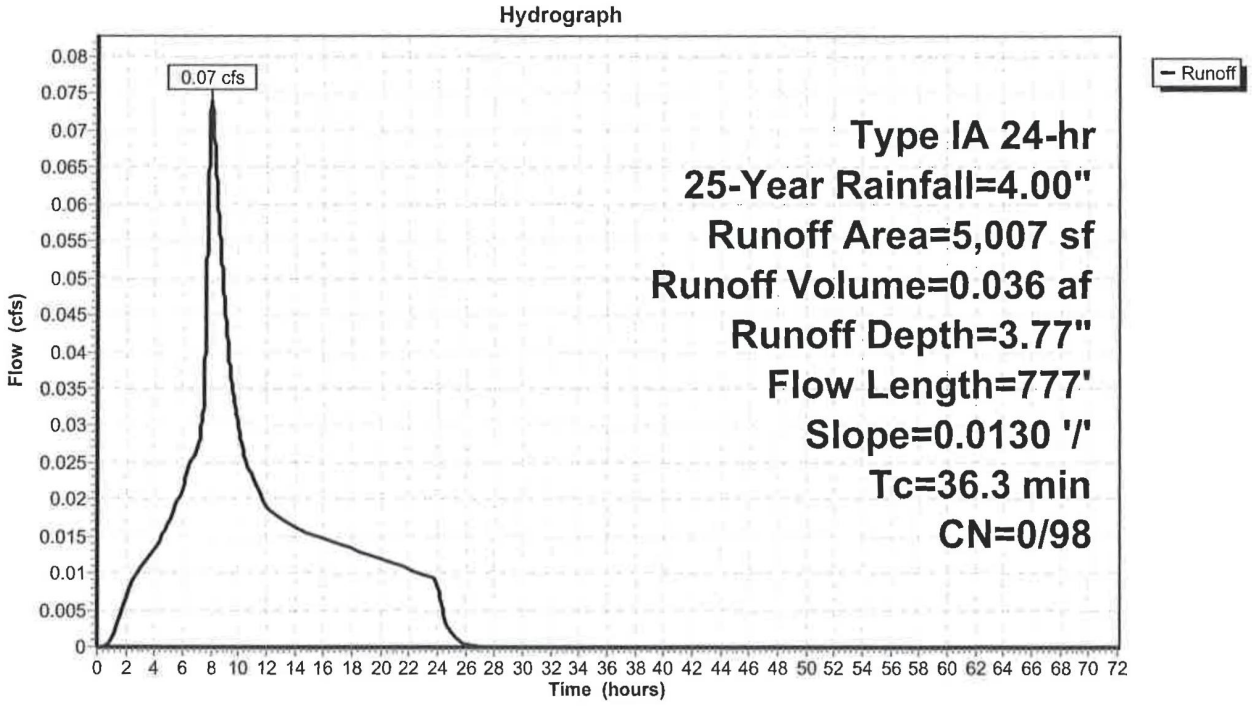
Runoff = 0.07 cfs @ 8.01 hrs, Volume= 0.036 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25-Year Rainfall=4.00"

	Area (sf)	CN	Description
*	5,007	98	
	5,007	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
31.7	300	0.0130	0.16		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
4.6	477	0.0130	1.71		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
36.3	777	Total			

Subcatchment 400B: Upstream Pervious



Summary for Subcatchment 401A: Upstream Impervious

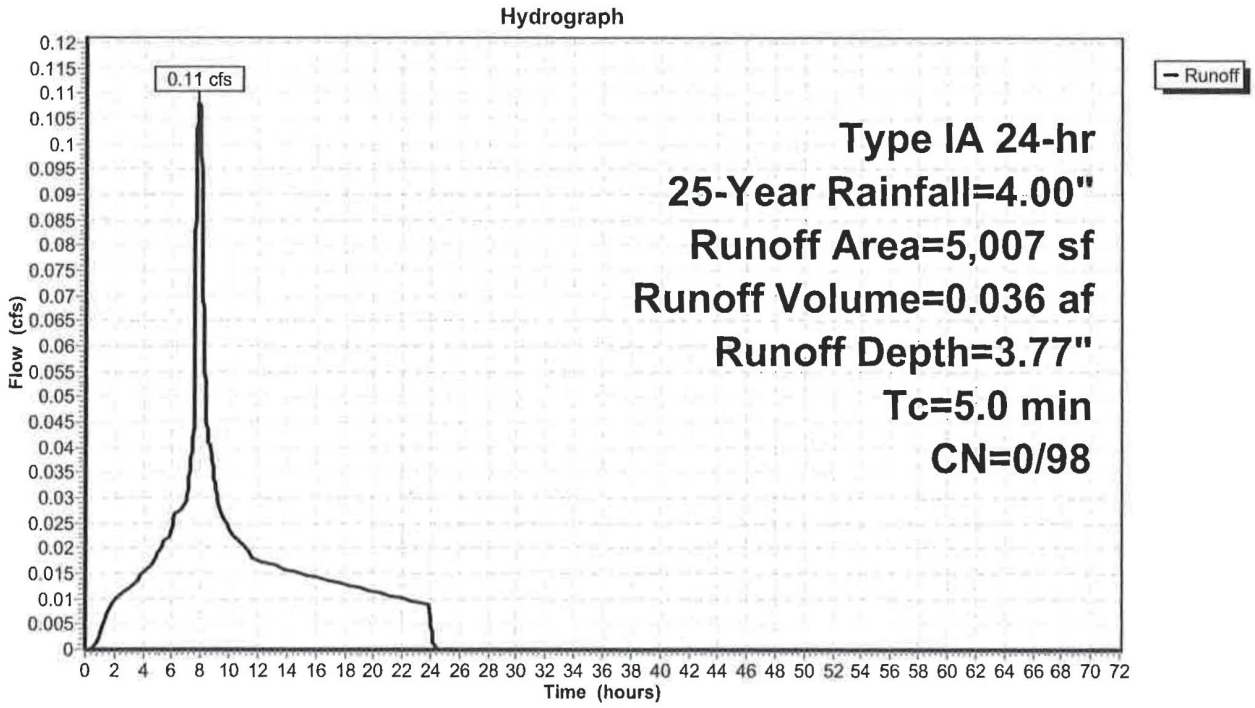
Runoff = 0.11 cfs @ 7.88 hrs, Volume= 0.036 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25-Year Rainfall=4.00"

	Area (sf)	CN	Description
*	5,007	98	
	5,007	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 401A: Upstream Impervious



Summary for Subcatchment 401B: Upstream Pervious

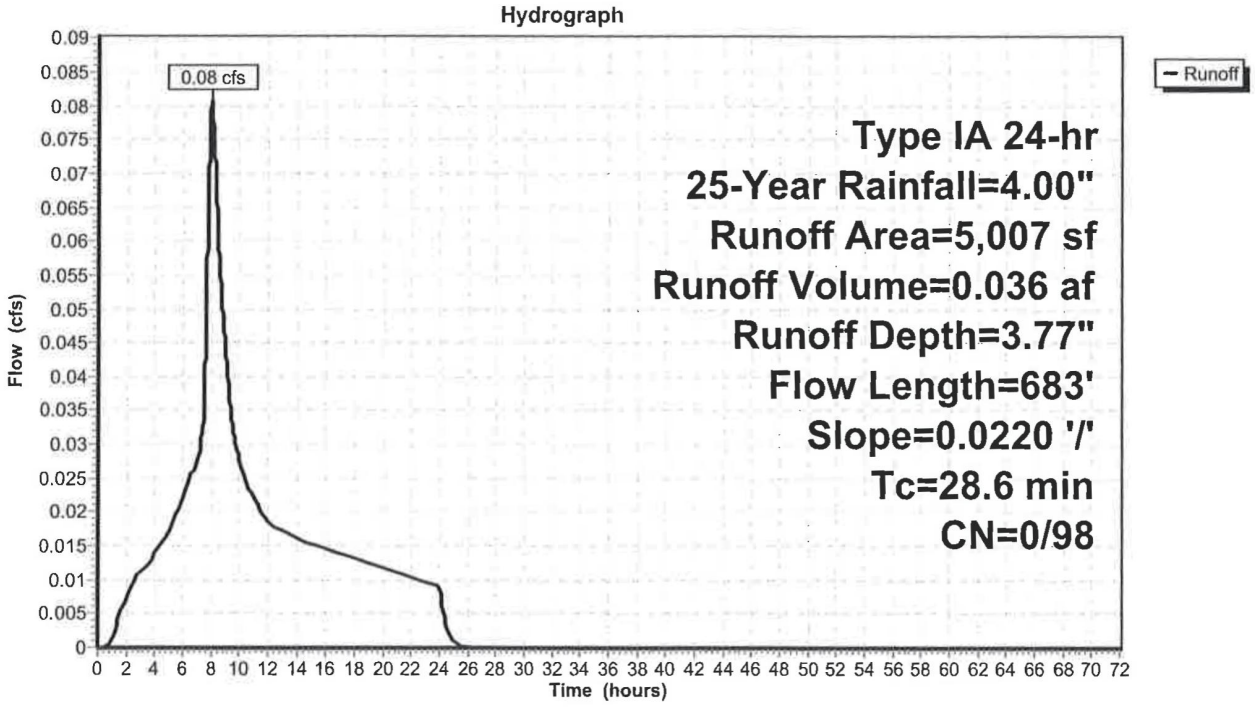
Runoff = 0.08 cfs @ 8.01 hrs, Volume= 0.036 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25-Year Rainfall=4.00"

	Area (sf)	CN	Description
*	5,007	98	
	5,007	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.7	300	0.0220	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
2.9	383	0.0220	2.22		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
28.6	683	Total			

Subcatchment 401B: Upstream Pervious



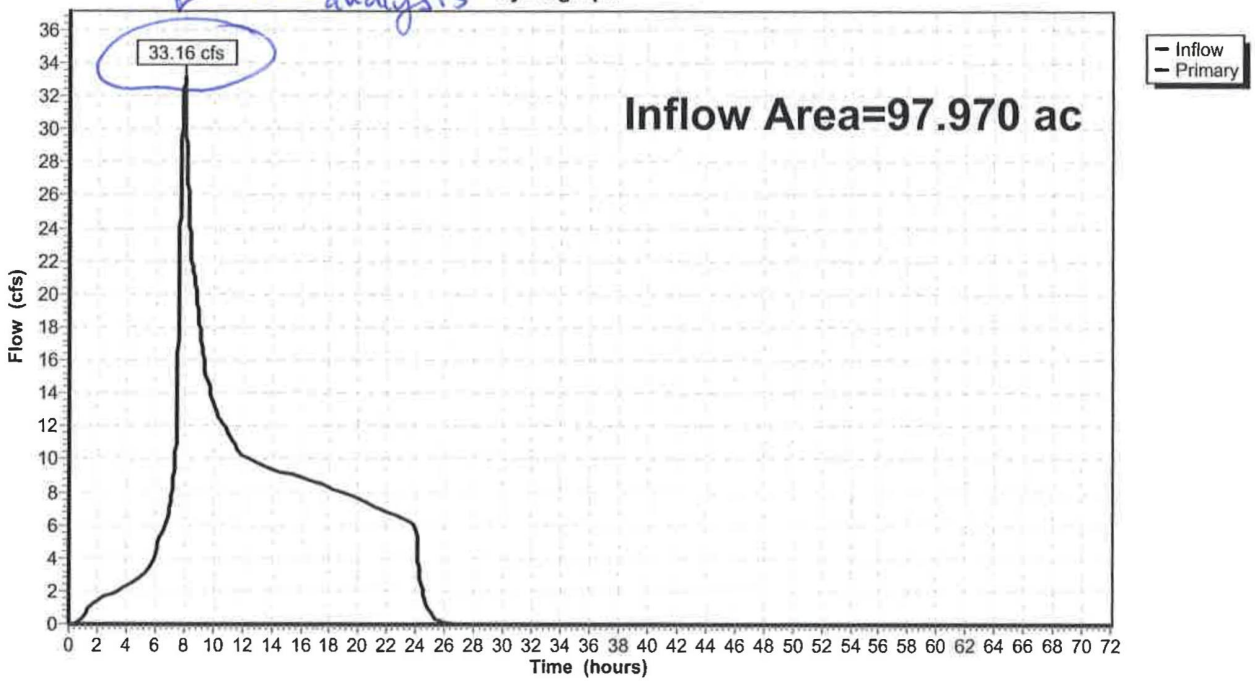
Summary for Link 402L:

Inflow Area = 97.970 ac, 17.89% Impervious, Inflow Depth = 1.98" for 25-Year event
Inflow = 33.16 cfs @ 8.00 hrs, Volume= 16.201 af
Primary = 33.16 cfs @ 8.00 hrs, Volume= 16.201 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak flow rate used for downstream analysis

Link 402L: Hydrograph



Appendix: C(4)

Project:	Marquis Oregon City Parking Lot Expansion
Project:	25-yr event Downstream Conveyance Analysis
Date:	1/24/2019
Calc'd By:	Evans

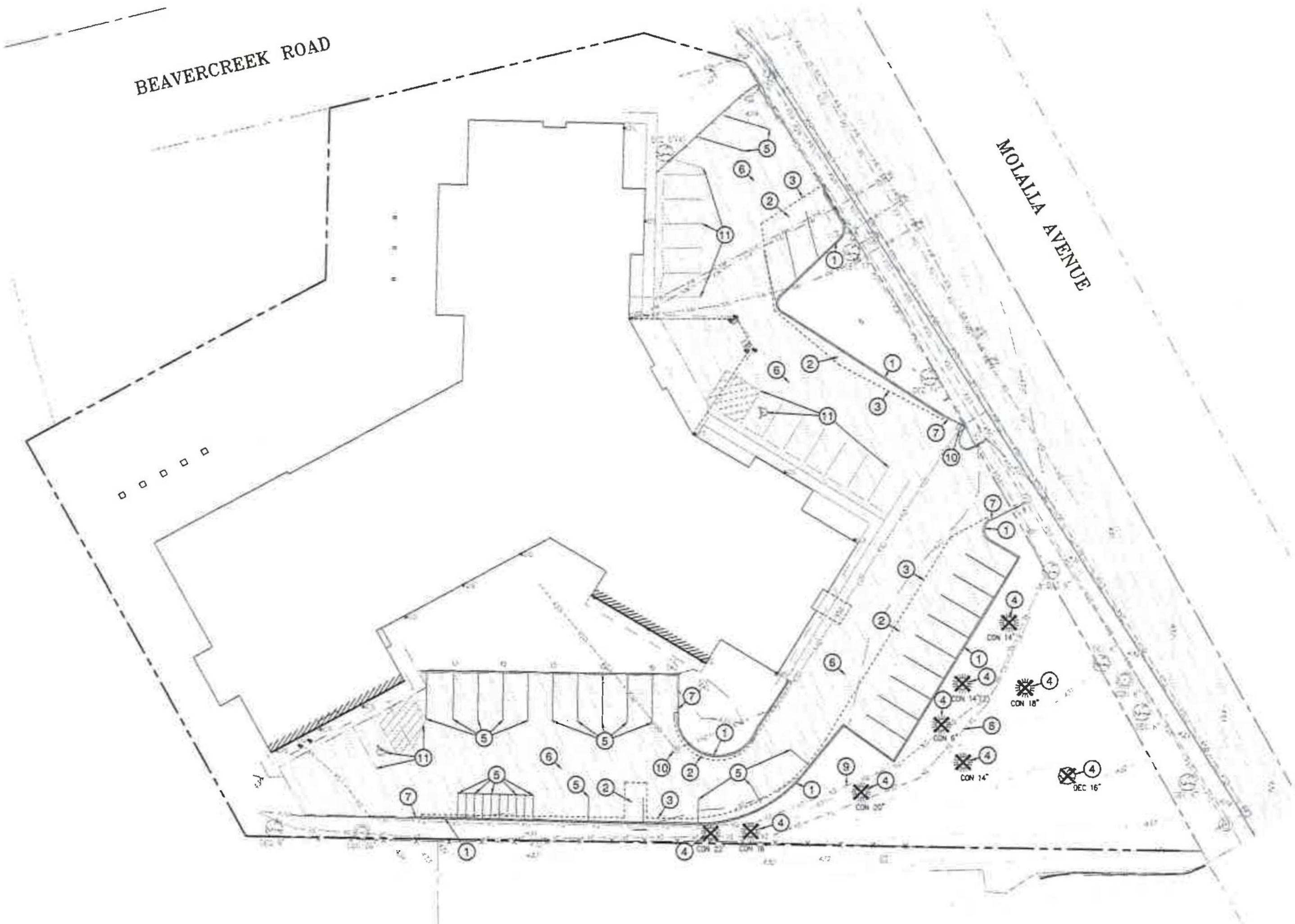
		Pipe Information and Calculations												
Design Section	Segment	Q (Calc'd) "Q"	Pipe Dia. (inch) "D"	Pipe Dia. (ft) "D"	Manning's number "n"	Slope "S" %	Slope "S"	Area Full (Calc'd) "Af"	Wetted Perimeter (Calc'd) "WPf"	Hydraulic Radius (Calc'd) "Rf"	Velocity Full (Calc'd) "Vf"	Flow Rate Full (Calc'd) "Qf"	% Pipe Capacity Used (Calc'd) "Q/Qf"	Velocity @ Q/Qf (Calc'd) "V"
			Downstream Conveyance Analysis											
S Beavercreek Rd	SDMH34615-SDMH37235	33.16	48	4.00	0.013	0.49	0.0049	12.566	12.566	1.000	8.031	#####	32.9%	2.64
S Beavercreek Rd	SDMH37235-SDMH34602	33.16	48	4.00	0.013	0.49	0.0049	12.566	12.566	1.000	8.031	#####	32.9%	2.64
S Beavercreek Rd	SDMH34602-SDMH34611	33.16	48	4.00	0.013	0.49	0.0049	12.566	12.566	1.000	8.023	#####	32.9%	2.64
S Beavercreek Rd	SDMH34611-SDMH30023	33.16	48	4.00	0.013	0.49	0.0049	12.566	12.566	1.000	8.031	#####	32.9%	2.64
S Beavercreek Rd	SDMH30023-SDMH34994	33.16	48	4.00	0.013	0.49	0.0049	12.566	12.566	1.000	8.031	#####	32.9%	2.64
To Outfall	SDMH34994-OUTFALL	33.16	48	4.00	0.013	0.49	0.0049	12.566	12.566	1.000	8.031	#####	32.9%	2.64

Note: For conservatism,total combined flow rate of 33.16 CFS was used with a pipe slope less than 0.5%.

APPENDIX C(4)

Appendix D:

APPENDIX: D(1)



N
SCALE: 1" = 10'
11"X17" @ 1" = 20'

LEGEND

- BOUNDARY LINE
- ADJACENT/ADJOINING LOT LINE
- CENTER LINE ROW
- EASEMENT
- EXISTING 1' CONTOUR LINE
- EXISTING 5' CONTOUR LINE
- EXISTING TREE
- EXISTING CATCH BASIN
- EXISTING STORM SEWER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING WATER VUALT
- EXISTING WATER VALVE
- EXISTING IRRIGATION VALVE
- EXISTING UTILITY POLE
- EXISTING STREET LIGHT
- EXISTING GAS METER
- EXISTING BOLLARD
- EXISTING SIGN
- EXISTING DOWN SPOUT
- EXISTING HANDICAP PARKING
- EXISTING OVERHEAD LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM SEWER LINE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING FENCELINE

DEMOLITION NOTES

1. EXISTING CURB TO BE REMOVED
2. EXISTING AC TO BE REMOVED
3. SAWCUT LINE
4. EXISTING TREE TO BE REMOVED
5. EXISTING STRIPING TO BE REMOVED
6. EXISTING AC PAVEMENT TO REMAIN AND BE PROTECTED DURING DEMOLITION
7. EXISTING CURB TO REMAIN AND BE PROTECTED DURING DEMOLITION
8. EXISTING ELECTRIC LINE TO REMAIN BE PROTECTED DURING DEMOLITION
9. EXISTING GAS LINE TO REMAIN AND BE PROTECTED DURING DEMOLITION
10. EXISTING STORM CATCH BASIN TO REMAIN AND BE PROTECTED DURING DEMOLITION
11. EXISTING STRIPING TO REMAIN AND BE PROTECTED DURING DEMOLITION

1680 MOLALLA AVENUE

TAX MAP T3S R2E 05C
TAX LOT 00301
CITY OF OREGON CITY, OREGON

EXISTING CONDITIONS AND DEMOLITION PLAN

REVISIONS

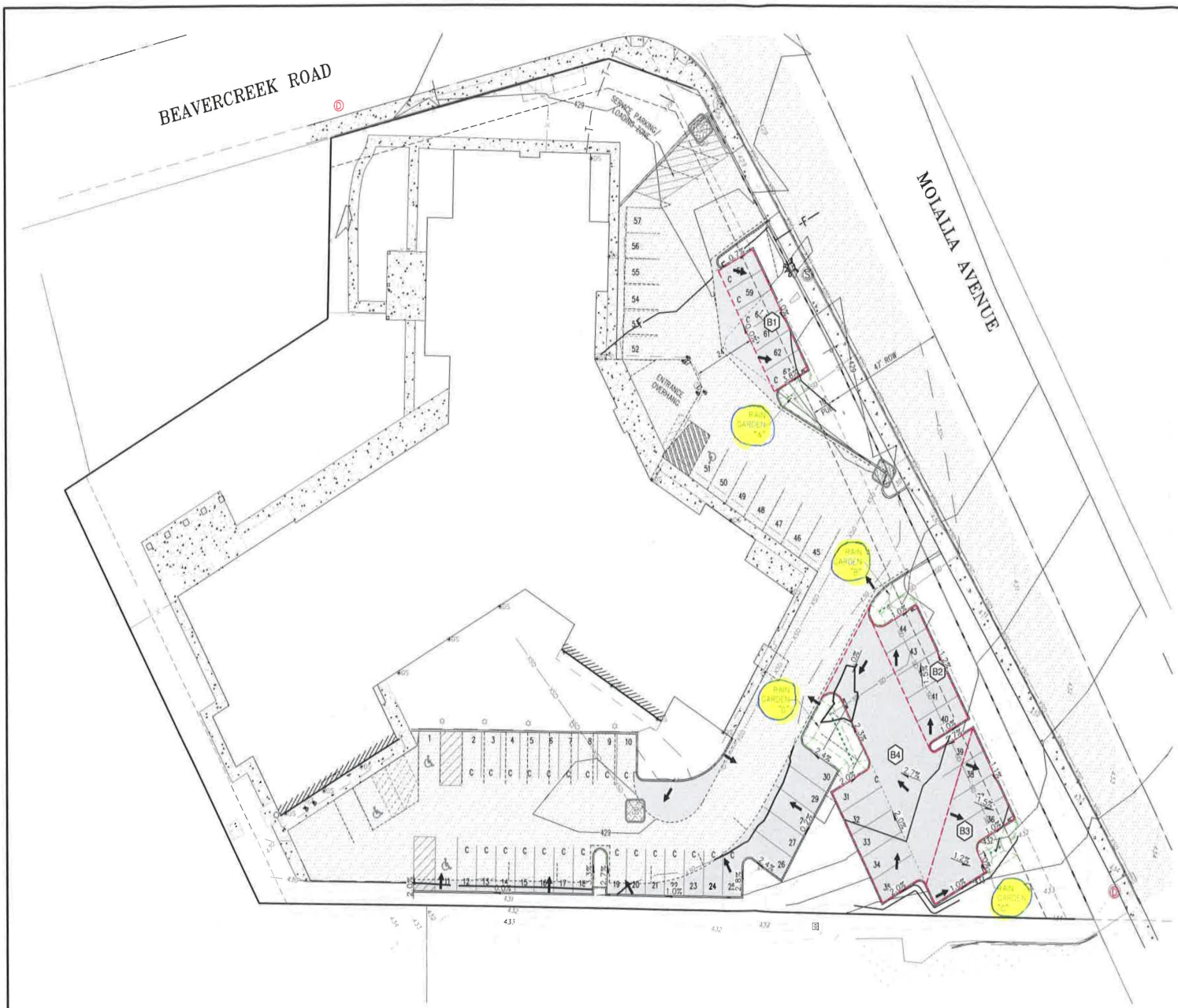
NO.	DATE	DESCRIPTION

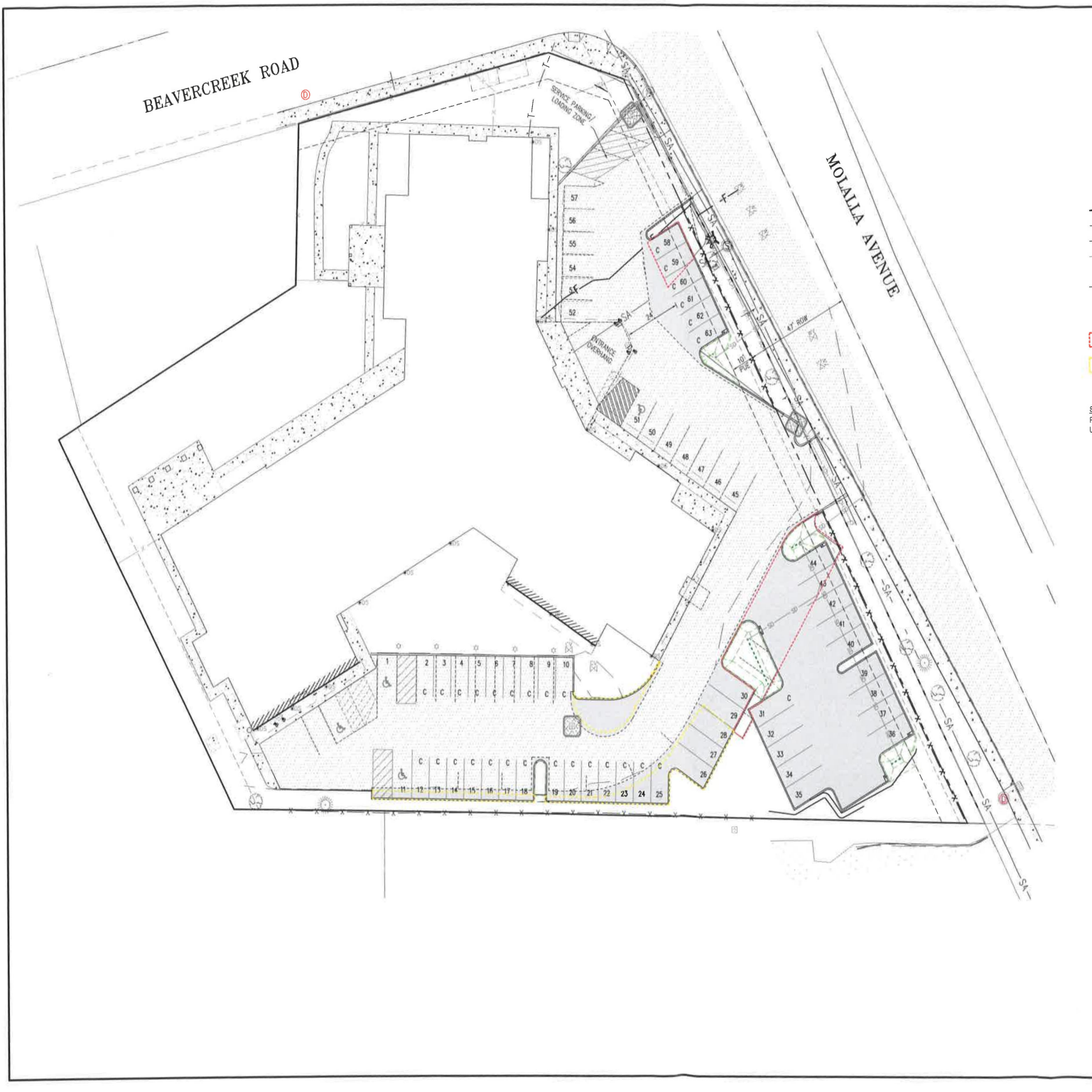
EMERIO Design

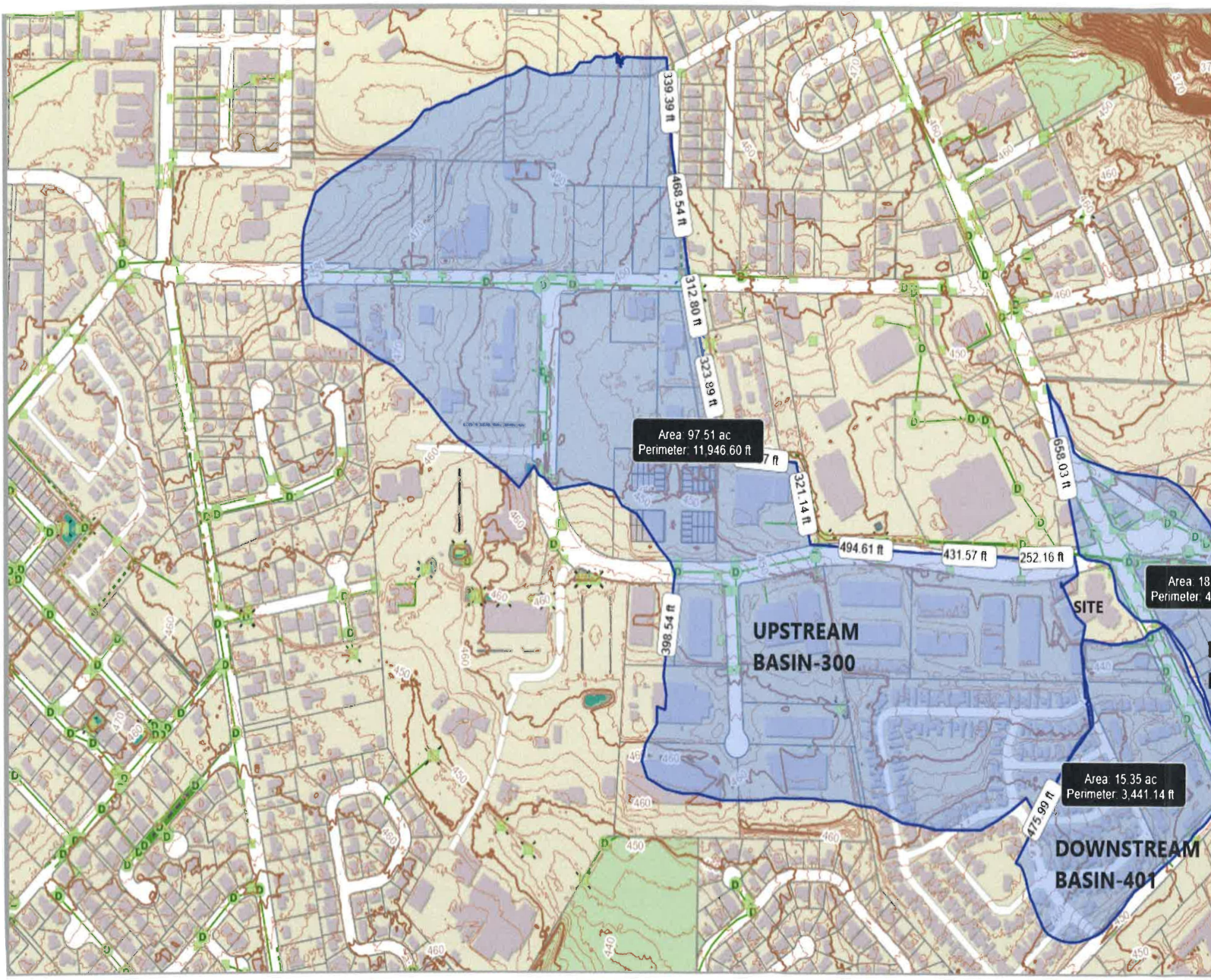
6445 SW FALLBROOK PLACE, SUITE 100
BEAVERTON, OREGON 97008
TEL: (503) 746-8812
FAX: (503) 639-9592
www.emeriodesign.com

SHEET 2 OF 5

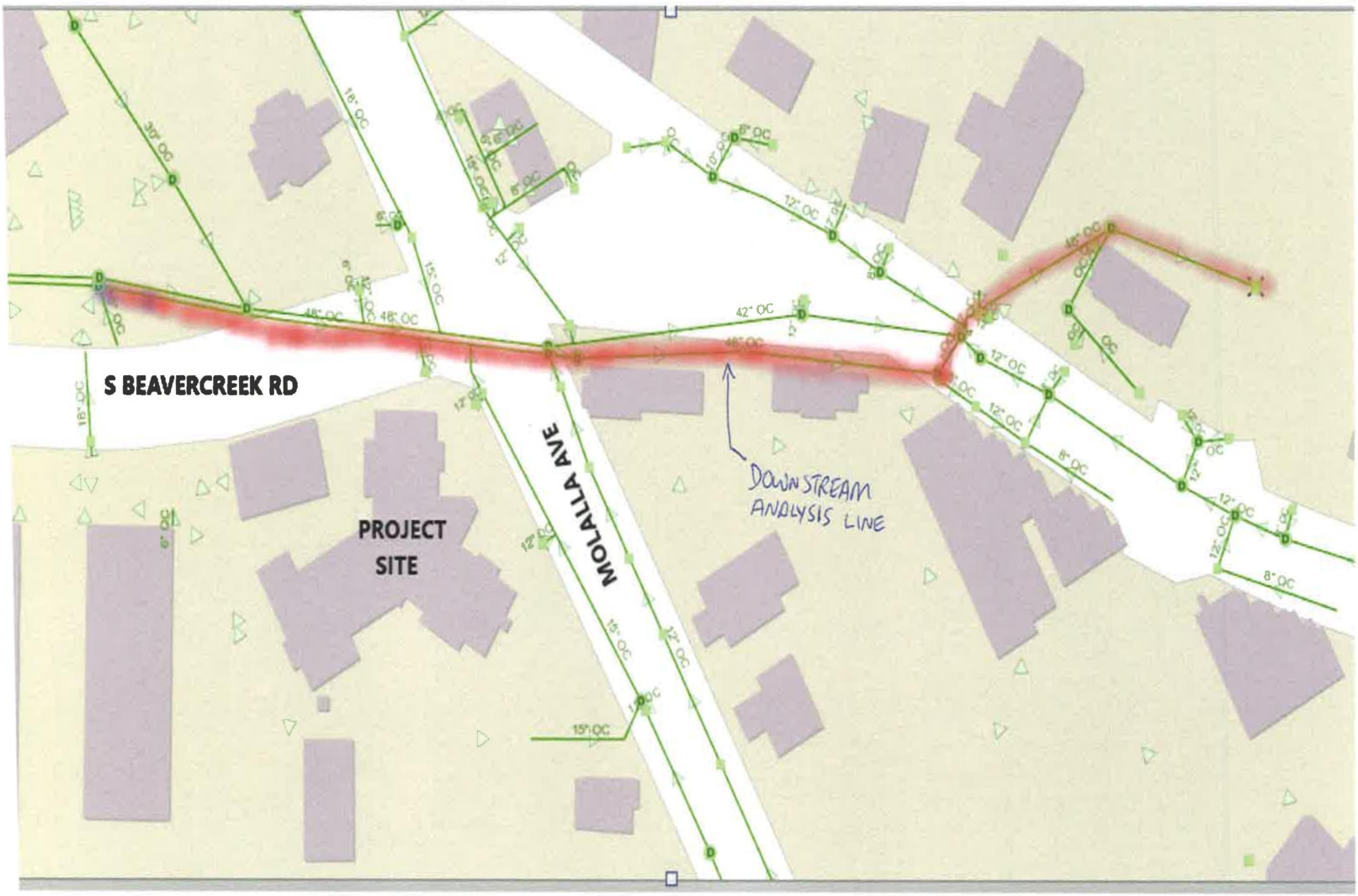
FILE P: \086-020 Marquis Oregon City Parking Lot Expansion\dwg\plan\086-020_02.dwg, Layout: 2 EXISTING CONDITIONS AND DEMOLITION PLAN, Plot Date: 9/18/2018 7:18 AM, by: Kyung Kim


BEAVERCREEK ROAD
MOLALLA AVENUE
SERVICE PARKING / LOADING ZONE
ENTRANCE OVERHANG
47' ROW
RAIN GARDEN "A"
RAIN GARDEN "B"
RAIN GARDEN "C"
RAIN GARDEN "D"
B1
B2
B3
B4


BEAVERCREEK ROAD
MOLALLA AVENUE
SERVICE PARKING / LOADING ZONE
ENTRANCE OVERHANG
47' ROW


339.39 ft
468.54 ft
312.80 ft
323.89 ft
Area: 97.51 ac
Perimeter: 11,946.60 ft
321.14 ft
658.03 ft
494.61 ft
431.57 ft
252.16 ft
Area: 18
Perimeter: 4
SITE
398.54 ft
UPSTREAM
BASIN-300
Area: 15.35 ac
Perimeter: 3,441.14 ft
475.99 ft
DOWNSTREAM
BASIN-401

APPENDIX: DYA



GeoPacific Engineering, Inc.

Real-World Geotechnical Solutions
Investigation • Design • Construction Support

Geotechnical Engineering Study

Marquis Oregon City Parking Lot Expansion
1680 Molalla Avenue
Oregon City, Oregon 97045

GeoPacific Engineering, Inc. Job No. 18-4984
August 29, 2018

14835 SW 72nd Avenue
Portland, Oregon 97224

Tel (503) 598-8445
Fax (503) 941-9281

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Pavement Design Calculations

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Real-World Geotechnical Solutions
Investigation • Design • Construction Support

August 28, 2018
Project No. 18-4984

Marquis Companies
Mr. Scott Miller
4560 SE International Way, Suite 100
Milwaukie, Oregon 97222
Phone: (971) 206-5200

SUBJECT: GEOTECHNICAL ENGINEERING STUDY
MARQUIS OREGON CITY PARKING LOT EXPANSION
1680 MOLALLA AVENUE
OREGON CITY, OREGON 97045

PROJECT INFORMATION

This report presents the results of a geotechnical engineering study conducted by GeoPacific Engineering, Inc. (GeoPacific) for the above-referenced project. The purpose of our study was to investigate subsurface conditions at the site and provide recommendations for stormwater management and the construction of new pavement sections. This geotechnical study was performed in accordance with GeoPacific Proposal No. P-6631, dated June 13, 2018, and your subsequent authorization of our proposal and *General Conditions for Geotechnical Services*.

Site Location:	1680 Molalla Avenue Oregon City, Oregon 97045 (see Figures 1 through 3)
Civil Designer:	Emerio Design Kyung Han 6445 SW Fallbrook Place, Suite 100 Beaverton, Oregon 97008 Phone: (503) 746-8812 Email: kyung@emeriodesign.com
Jurisdictional Agency:	City of Oregon City, Oregon
Prepared By:	GeoPacific Engineering, Inc 14835 SW 72nd Avenue Portland, Oregon 97224 Tel (503) 598-8445 Fax (503) 941-9281

SITE AND PROJECT DESCRIPTION

The site is approximately 1.84 acres in size, and is located at 1680 Molalla Avenue in Oregon City, Oregon (Figure 1). The site is bordered by Beavercreek Road to the north, Molalla Avenue to the east, and commercial businesses to the south, west, and northwest. Vegetation onsite consists primarily of short grasses, shrubs, and medium to large trees. The central portion of the site is occupied by the Marquis Oregon City Post Acute Rehab Center with parking and drive areas surrounding the existing building. The southeastern portion of the site is undeveloped and forested with conifer trees. Topography at the site is relatively flat with site elevations ranging from 429 to 432 feet amsl.

Based upon communication with the client and review of preliminary project plans, GeoPacific understands that the proposed development at the site will consist of the expansion of the existing parking lot primarily onto the southeastern portion of the site, and associated stormwater facilities.

REGIONAL GEOLOGIC SETTING

Regionally, the subject site lies within the Willamette Valley/Puget Sound lowland, a broad structural depression situated between the Coast Range on the west and the Cascade Range on the east. A series of discontinuous faults subdivide the Willamette Valley into a mosaic of fault-bounded, structural blocks (Yeats et al., 1996). Uplifted structural blocks form bedrock highlands, while down-warped structural blocks form sedimentary basins. Valley-fill sediment in the adjacent basin achieves a maximum thickness of 1,500 feet and overlies Miocene Columbia River Basalt at depth (Madin, 1990; Yeats et al., 1996).

The subject site lies on a broad volcanic plateau underlain by the Boring Lava which formed during a period of Plio-Pleistocene (5 to 0.2 million years ago) volcanism and faulting (Schlicker and Finlayson, 1979). The Boring Lava consists mainly of basaltic lava flows, but locally contains tuff breccia, ash, tuff, cinders, and scoriaceous volcanic debris flows deposited on the flanks of volcanic cones. The flows are commonly light gray to nearly black, with lighter tones predominating, and are characterized by columnar jointing and flow structures. The upper surface of the Boring Lava is typically weathered to depths of 25 feet or more with the upper 5 to 15 feet consisting of red-brown, clayey silt to silty clay soil.

FIELD EXPLORATION AND SUBSURFACE CONDITIONS

Our site-specific explorations for this report was conducted on July 27, 2018 and consisted of 3 hand auger borings extending to a maximum depth of 5.5 feet below ground surface (bgs), and 2 portable dynamic cone penetration tests (PDCPs). Hand augers HA-1 and HA-3 were performed to observe soil and groundwater conditions. Infiltration testing was conducted within hand auger HA-2 at 4.6 feet below the ground surface. The approximate locations of the explorations are shown on the attached site plans (Figures 2 and 3). It should be noted that the exploration locations were located in the field by pacing or taping distances from apparent property corners and other site features shown on the plans provided. As such, the locations of the explorations should be considered approximate. During the exploration, GeoPacific observed and recorded pertinent soil information such as color, stratigraphy, strength, and soil moisture content. Soils were classified in general accordance with the Unified Soil Classification System (USCS). At the completion of the

explorations, the hand augers were backfilled loosely with onsite soils. Exploration logs corresponding to hand augers HA-1 through HA-3, PDCP-1, and PDCP-2 are attached to the appendix of this report. Soil and groundwater conditions encountered in our explorations are summarized below.

Soil Descriptions

Undocumented Fill: Underlying the ground surface at the location of hand auger HA-2, we observed undocumented fill material consisting of medium stiff, brown, moderately organic, damp, SILT (ML-OL). The fill material contained subrounded to angular gravel and fine to medium roots. The undocumented fill was surfaced with grass and developed approximately 6 inches of topsoil on the ground surface. The undocumented fill extended to an approximate depth of 18 inches below the ground surface at the location of hand auger HA-2.

Topsoil Horizon: Underlying the ground surface at the location of hand augers HA-1 and HA-3, we observed a topsoil horizon consisting of medium stiff, dark brown, moderately organic, damp, SILT (ML-OL). The topsoil layer contained fine to medium roots. The topsoil horizon extended to an approximate depth of 10 inches below the ground surface in hand auger borings HA-1 and HA-3.

Residual Soil: Underlying the topsoil in hand augers HA-1 and HA-3, and the undocumented fill in hand auger HA-2, we observed residual soil consisting of stiff to very stiff, damp to moist, low plasticity, reddish brown, Lean CLAY (CL). The residual soil gradually graded to weathered rock at an approximate depth of 4-5 feet in our hand auger explorations. Based upon our observations of the soil type and review of geologic mapping, residual soil encountered in our explorations was derived from weathering of the underlying Boring Lava Formation.

Boring Lava – Beneath the residual soil, we encountered weathered rock belonging to the Boring Lava Formation in all explorations. The upper foot of the weathered rock was generally extremely soft to very soft (R0-R1). We experienced practical refusal on very soft (R1) basalt at a depth of 4.6 feet in hand auger HA-1, 5.5 feet in hand auger HA-2, and 4.2 feet in hand auger HA-3.

Table 1 - Rock Hardness Classification Chart

ODOT Rock Hardness Rating	Field Criteria	Unconfined Compressive Strength	Typical Equipment Needed For Excavation
Extremely Soft (R0)	Indented by thumbnail	<100 psi	Small excavator
Very Soft (R1)	Scratched by thumbnail, crumbled by rock hammer	100-1,000 psi	Small excavator
Soft (R2)	Not scratched by thumbnail, indented by rock hammer	1,000-4,000 psi	Medium excavator (slow digging with small excavator)
Medium Hard (R3)	Scratched or fractured by rock hammer	4,000-8,000 psi	Medium to large excavator (slow to very slow digging), typically requires chipping with hydraulic hammer or mass excavation)
Hard (R4)	Scratched or fractured w/ difficulty	8,000-16,000 psi	Slow chipping with hydraulic hammer and/or blasting
Very Hard (R5)	Not scratched or fractured after many blows, hammer rebounds	>16,000 psi	Blasting

Groundwater and Soil Moisture

On July 27, 2018, observed soil moisture conditions within our test pit explorations were generally damp, grading moist at approximately 2-3 feet below the ground surface. Perched groundwater or seepage was not encountered during our site exploration. According to the *Estimated Depth to Groundwater in the Portland, Oregon Area, (United States Geological Survey, Snyder, 2018 website)*, groundwater may be present at an approximate depth of 15 to 25 feet below the ground surface. It is anticipated that groundwater conditions will vary depending on the season, local subsurface conditions, changes in site utilization, and other factors.

Infiltration Testing

Soil infiltration testing was performed using the open-hole method in hand auger HA-2. The approximate locations of the subsurface explorations are indicated on Figures 2 and 3. The test location was pre-saturated prior to testing. During testing the water level was measured to the nearest 0.01 foot (1/8 inch) from a fixed point, and the change in water level was recorded at regular intervals until three successive measurements showing a consistent infiltration rate were achieved.

Table 2 summarizes the results of our infiltration testing. Soils at the test location were observed and sampled in order to characterize the subsurface profile. Tested native soils classified as Lean CLAY (CL). The result of the infiltration testing indicates an infiltration rate that was not measurable in the field (0.0 inches per hour) from 0 to 5.5 feet below the ground surface. The measured rate for this test reflects both vertical and horizontal flow pathways. The infiltration results presented in Table 2 do not incorporate factors of safety.

Table 2 - Summary of Infiltration Test Results

Test Location	Depth (feet)	Soil Type	Infiltration Rate (inches/hr)	Hydraulic Head Range (inches)
HA-2	4.6	CL	0.0	12

Portable Dynamic Cone Penetrometer Testing

On July 27, 2018, GeoPacific Engineering conducted in place strength testing of native soils in two locations, indicated on Figure 2. A portable dynamic cone penetrometer was used to collect data for design of the pavement sections. Table 3 summarizes the results of our PDCP testing. PDCP testing data is attached to this report.

Table 3 - PDCP Field Test Results and Representative CBR Values

Field Test Designation	Material Tested	Depth Interval of Test (inches)	Average Penetration Per Blow (mm)	Correlated CBR Value
PDCP-1	Native SILT	5-45	7	34
PDCP-2	Native SILT	17-47	7	34

CONCLUSIONS AND RECOMMENDATIONS

Our site investigation indicated that the proposed construction is geotechnically feasible, provided that the recommendations of this report are incorporated into the design and construction phases of the project.

In our opinion, the primary geotechnical concern associated with construction at the site is the presence of residual soil and weathered rock. The residual soil exhibits negligible hydraulic conductivity. Based on results of our soil infiltration testing, soils at the subject site exhibited infiltration rates that were not measurable in the field. In our explorations, weathered rock was encountered between 3.8 to 4.2 feet below the ground surface. Generally, at least 5 feet of separation is recommended between infiltration facilities and rock. Based on the subsurface conditions encountered, subsurface infiltration of stormwater is not recommended for this site.

The second geotechnical concern associated with construction at the site is the potential for bedrock at shallow depths across the site. The Boring Lava Formation, which underlies the site, is known for rounded residual boulders, which could hamper excavations, such as for stormwater management facilities and utility trenching. The potential for encountering boulders should be anticipated. The following report sections provide recommendations for site development and construction in accordance with the current applicable codes and local standards of practice.

Site Preparation Recommendations

Areas of proposed construction should be cleared of vegetation, stockpiled soils, and any organic and inorganic debris. Inorganic debris and organic materials from clearing should be removed from the site. Organic-rich soils and root zones should then be stripped from construction areas of the site or where engineered fill is to be placed. Based upon our observations, the residual soil appears to be adequate for reuse as engineered fill provided the soil is adequately aerated to within 2 percent of optimum moisture during site grading.

The depth of stripping of organic soils and topsoil is estimated to be approximately 6 inches across the undeveloped portion of the site. However, depth of organic soil layers may increase in areas not explored. The southeast portion of the site, where the majority of new parking lot expansion is proposed, is densely forested, and deep stripping will likely be required in that area to remove organic material and topsoil. The final depth of soil removal will be determined on the basis of a site inspection after the stripping/excavation has been performed. Stripped topsoil should be removed from the site. Any remaining topsoil should be stockpiled only in designated areas and stripping operations should be observed and documented by the geotechnical engineer or his representative. Deeper stripping to remove large tree roots or other organics may be necessary in portions of the site. It is possible that portions of the soil containing medium to large roots, but not much other organic content, may be remediated by ripping/tilling, root-picking, and recompacting. Prior to placement of engineered fill, subgrade soils should be aerated and recompacted. If unstable soil is encountered in low-lying, high seasonal groundwater areas, crushed aggregate or cement amended stabilization may be necessary.

If encountered, undocumented fills and any subsurface structures (dry wells, basements, driveway and landscaping fill, old utility lines, septic leach fields, etc.) should be completely removed and the excavations backfilled with engineered fill.

Engineered Fill

We anticipate that onsite soils, consisting of SILT and Lean CLAY will largely be suitable for use as engineered fill. All grading for the proposed construction should be performed as engineered grading in accordance with the applicable building code at the time of construction with the exceptions and additions noted herein. Areas proposed for fill placement should be prepared as described in the site preparation section. Surface soils should then be scarified and recompacted prior to placement of structural fill. Proper test frequency and earthwork documentation usually requires daily observation and testing during stripping, rough grading, and placement of engineered fill. Imported fill material must be approved by the geotechnical engineer prior to being imported to the site. Oversize material greater than 12 inches in diameter should not be used in engineered fill.

Engineered fill should be compacted in horizontal lifts not exceeding 8 inches using standard compaction equipment. We recommend that engineered fill be compacted to at least 95 percent of the maximum dry density determined by ASTM D698 (Standard Proctor) or equivalent. Field density testing should conform to ASTM D2922 and D3017, or D1556. All engineered fill should be observed and tested by the project geotechnical engineer or his representative. Typically, one density test is performed for at least every 2 vertical feet of fill placed or every 500 yd^3, whichever

requires more testing. Because testing is performed on an on-call basis, we recommend that the earthwork contractor be held contractually responsible for test scheduling and frequency. Site earthwork will be impacted by soil moisture and shallow groundwater conditions.

Excavating Conditions and Utility Trench Backfill

We anticipate that on-site soils can be excavated using conventional heavy equipment. Maintenance of safe working conditions, including temporary excavation stability, is the responsibility of the contractor. Actual slope inclinations at the time of construction should be determined based on safety requirements and actual soil and groundwater conditions. All temporary cuts in excess of 4 feet in height should be sloped in accordance with U.S. Occupational Safety and Health Administration (OSHA) regulations (29 CFR Part 1926), or be shored. The existing native soils classify as Type B Soil and temporary excavation side slope inclinations as steep as 1H:1V may be assumed for planning purposes. This cut slope inclination is applicable to excavations above the water table only.

Shallow, perched groundwater may be encountered during the wet weather season and should be anticipated in excavations and utility trenches. Vibrations created by traffic and construction equipment may cause some caving and raveling of excavation walls. In such an event, lateral support for the excavation walls should be provided by the contractor to prevent loss of ground support and possible distress to existing or previously constructed structural improvements.
PVC pipe should be installed in accordance with the procedures specified in ASTM D2321 and Oregon City standards. We recommend that structural trench backfill be compacted to at least 95 percent of the maximum dry density obtained by the Standard Proctor (ASTM D698) or equivalent. Initial backfill lift thicknesses for a ¾"-0 crushed aggregate base may need to be as great as 4 feet to reduce the risk of flattening underlying flexible pipe. Subsequent lift thickness should not exceed 1 foot. If imported granular fill material is used, then the lifts for large vibrating plate-compaction equipment (e.g. hoe compactor attachments) may be up to 2 feet, provided that proper compaction is being achieved and each lift is tested. Use of large vibrating compaction equipment should be carefully monitored near existing structures and improvements due to the potential for vibration-induced damage.

Adequate density testing should be performed during construction to verify that the recommended relative compaction is achieved. Typically, at least one density test is taken for every 4 vertical feet of backfill on each 200-lineal-foot section of trench.

Erosion Control Considerations

During our field exploration program, we did not observe soil conditions that would be considered highly susceptible to erosion. In our opinion, the primary concern regarding erosion potential will occur during construction in areas that have been stripped of vegetation. Erosion at the site during construction can be minimized by implementing the project erosion control plan, which should include judicious use of straw wattles, fiber rolls, and silt fences. If used, these erosion control devices should remain in place throughout site preparation and construction.

Erosion and sedimentation of exposed soils can also be minimized by quickly re-vegetating exposed areas of soil, and by staging construction such that large areas of the project site are not

denuded and exposed at the same time. Areas of exposed soil requiring immediate and/or temporary protection against exposure should be covered with either mulch or erosion control netting/blankets. Areas of exposed soil requiring permanent stabilization should be seeded with an approved grass seed mixture, or hydroseeded with an approved seed-mulch-fertilizer mixture.

Wet Weather Earthwork

Soils underlying the site are likely to be moisture sensitive and may be difficult to handle or traverse with construction equipment during periods of wet weather. Earthwork is typically most economical when performed under dry weather conditions. Earthwork performed during the wet-weather season will probably require expensive measures such as cement treatment or imported granular material to compact areas where fill may be proposed to the recommended engineering specifications. If earthwork is to be performed or fill is to be placed in wet weather or under wet conditions when soil moisture content is difficult to control, the following recommendations should be incorporated into the contract specifications.

- Earthwork should be performed in small areas to minimize exposure to wet weather. Excavation or the removal of unsuitable soils should be followed promptly by the placement and compaction of clean engineered fill. The size and type of construction equipment used may have to be limited to prevent soil disturbance. Under some circumstances, it may be necessary to excavate soils with a backhoe to minimize subgrade disturbance caused by equipment traffic;
- The ground surface within the construction area should be graded to promote run-off of surface water and to prevent the ponding of water;
- Material used as engineered fill should consist of clean, granular soil containing less than 5 percent passing the No. 200 sieve. The fines should be non-plastic. Alternatively, cement treatment of on-site soils may be performed to facilitate wet weather placement;
- The ground surface within the construction area should be sealed by a smooth drum vibratory roller, or equivalent, and under no circumstances should be left uncompacted and exposed to moisture. Soils which become too wet for compaction should be removed and replaced with clean granular materials;
- Excavation and placement of fill should be observed by the geotechnical engineer to verify that all unsuitable materials are removed and suitable compaction and site drainage is achieved; and
- Geotextile silt fences, straw wattles, and fiber rolls should be strategically located to control erosion.

If cement or lime treatment is used to facilitate wet weather construction, GeoPacific should be contacted to provide additional recommendations and field monitoring.

Flexible Pavement Design – Private Parking and Drive Areas – 20 Year Design Life

We understand that development at the site will include construction of private parking and drive areas inside the project. Based on the results of PDCP testing, the subgrade exhibits an average CBR value of 31 in dry weather conditions. For the new private pavement sections we

conservatively assume that the subgrade will exhibit a resilient modulus of at least 9,000, which correlates to a CBR value of 6. We assumed an anticipated 18-kip ESAL count of approximately 75,000 over 20 years, accounting for projected population growth. Our design considers 550 trips per day with 3 percent heavy trucks. If higher amounts of truck traffic are expected for the site, GeoPacific should be consulted to provided revised pavement design recommendations. Table 4 presents our flexible pavement design input parameters. Table 5 presents our recommended minimum dry-weather pavement section for the proposed roadway, supporting 20 years of vehicle traffic per Oregon City standards. Pavement design calculations are attached to this report.

Table 4 – Flexible Pavement Section Design Input Parameters for New Private Pavement Sections

Input Parameter	Design Value
18-kip ESAL Initial Performance Period (20 Years)	75,000
Initial Serviceability	4.2
Terminal Serviceability	2.5
Reliability Level	85 Percent
Overall Standard Deviation	0.5
Roadbed Soil Resilient Modulus (PSI)	9,000
Structural Number	**2.06**

Table 5 - Recommended Minimum Dry-Weather Pavement Section for New Private Pavement Sections

Material Layer	Private Pavement (inches)	Structural Coefficient	Compaction Standard
Asphaltic Concrete (AC)	3	.42	91%/ 92% of Rice Density AASHTO T-209
Crushed Aggregate Base ¾"-0 (leveling course)	2	.10	95% of Modified Proctor AASHTO T-180
Crushed Aggregate Base 1½"-0	8	.10	95% of Modified Proctor AASHTO T-180
Subgrade	12	9,000 PSI	95% of Standard Proctor AASHTO T-99 or equivalent
Total Calculated Structural Number		**2.26**	

The subgrade should be ripped or tilled to a depth of 12 inches, moisture conditioned, root-picked, and compacted in-place prior to the placement of crushed aggregate base for pavement. Any pockets of organic debris or loose fill encountered during ripping or tilling should be removed and replaced with engineered fill (see *Site Preparation Recommendations* section). In order to verify subgrade strength, we recommend proof-rolling directly on subgrade with a loaded dump truck during dry weather and on top of base course in wet weather. Soft areas that pump, rut, or weave should be stabilized prior to paving.

If pavement areas are to be constructed during wet weather, the subgrade and construction plan should be reviewed by the project geotechnical engineer at the time of construction so that condition specific recommendations can be provided. The moisture sensitive subgrade soils make

the site a difficult wet weather construction project. General recommendations for wet weather pavement sections are provided below.

During placement of pavement section materials, density testing should be performed to verify compliance with project specifications. Generally, one subgrade, one base course, and one asphalt compaction test is performed for every 100 to 200 linear feet of paving.

Wet Weather Construction Pavement Section

This section presents our recommendations for wet weather pavement section and construction for new pavement sections at the project. These wet weather pavement section recommendations are intended for use in situations where it is not feasible to compact the subgrade soils to Oregon Cities requirements, due to wet subgrade soil conditions, and/or construction during wet weather.

Based on our site review, we recommend a wet weather section with a minimum subgrade deepening of 6 to 12 inches to accommodate a working subbase of additional 1½"-0 crushed rock. Geotextile fabric, Mirafi 500x or equivalent, should be placed on subgrade soils prior to placement of base rock.

In some instances it may be preferable to use a subbase material in combination with overexcavation and increasing the thickness of the rock section. GeoPacific should be consulted for additional recommendations regarding use of additional subbase in wet weather pavement sections if it is desired to pursue this alternative. Cement treatment of the subgrade may also be considered instead of overexcavation. For planning purposes, we anticipate that treatment of the onsite soils would involve mixing cement powder to approximately 6 percent cement content and a mixing depth on the order of 12 to 18 inches.

With implementation of the above recommendations, it is our opinion that the resulting pavement section will provide equivalent or greater structural strength than the dry weather pavement section currently planned. However, it should be noted that construction in wet weather is risky and the performance of pavement subgrades depend on a number of factors including the weather conditions, the contractor's methods, and the amount of traffic the road is subjected to. There is a potential that soft spots may develop even with implementation of the wet weather provisions recommended in this letter. If soft spots in the subgrade are identified during roadway excavation, or develop prior to paving, the soft spots should be overexcavated and backfilled with additional crushed rock.

During subgrade excavation, care should be taken to avoid disturbing the subgrade soils. Removals should be performed using an excavator with a smooth-bladed bucket. Truck traffic should be limited until an adequate working surface has been established. We suggest that the crushed rock be spread using bulldozer equipment rather than dump trucks, to reduce the amount of traffic and potential disturbance of subgrade soils.

Care should be taken to avoid overcompaction of the base course materials, which could create pumping, unstable subgrade soil conditions. Heavy and/or vibratory compaction efforts should be applied with caution. Following placement and compaction of the crushed rock to project

specifications (95 percent of Modified Proctor), a finish proof-roll should be performed before paving.

The above recommendations are subject to field verification. GeoPacific should be on-site during construction to verify subgrade strength and to take density tests on the engineered fill, base rock and asphaltic pavement materials.

Stormwater Management

We understand that it is desired to incorporate subsurface infiltration of stormwater into the design of stormwater management facilities. However, during our geotechnical investigation of the site, we observed infiltration rates that were negligible (0.0 inches per hour), and encountered weathered rock at relatively shallow depths across the site. In our explorations, weathered rock was encountered between 3.8 to 4.2 feet below the ground surface. Generally, at least 5 feet of separation is recommended between infiltration facilities and rock.

Based on the subsurface conditions encountered, subsurface infiltration of stormwater is not recommended for this site. Our opinion is based on low measured infiltration rates and the fact that the native soil layer overlying weathered rock is generally less than 5 feet thick.

Stormwater management systems should be constructed as specified by the designer and/or in accordance with jurisdictional design manuals. Stormwater exceeding storage capacities will need to be directed to a suitable surface discharge location, away from structures. Stormwater management systems may need to include overflow outlets, surface water control measures and/or be connected to the street storm drain system, if available. In no case should uncontrolled stormwater be allowed to flow over slopes.

Subsurface stormwater disposal systems have the potential to affect groundwater quality since they provide a more direct pathway to groundwater aquifers. Consequently, disposal systems should be constructed and maintained in accordance with Oregon Department of Environmental Quality (DEQ) requirements for groundwater protection. Systems receiving runoff from pavement areas should include water quality elements; such as oil traps, filters, or similar measures.

UNCERTAINTIES AND LIMITATIONS

Infiltration test methods and procedures attempt to simulate the as-built conditions of a planned subsurface disposal system. However, due to natural variations in soil properties, actual infiltration rates may vary from the measured and/or recommended design rates. Storm events in excess of the design event are possible, and systems should be constructed such that potential overflow is discharged in a controlled manner away from structures.

We have prepared this report for the owner and their consultants for use of this project only. This report should be provided in its entirety to prospective contractors for bidding and estimating purposes; however, the conclusions and interpretations presented in this report should not be construed as a warranty of the subsurface conditions. Experience has shown that soil and groundwater conditions can vary significantly over small distances. Inconsistent conditions can occur between explorations that may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, GeoPacific should be notified for review of the recommendations of this report, and revision of such if necessary.

Sufficient geotechnical monitoring, testing and consultation should be provided during construction to confirm that the conditions encountered are consistent with those indicated by explorations. The checklist attached to this report outlines recommended geotechnical observations and testing for the project. Recommendations for design changes will be provided should conditions revealed during construction differ from those anticipated, and to verify that the geotechnical aspects of construction comply with the contract plans and specifications.

Within the limitations of scope, schedule and budget, GeoPacific attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology at the time the report was prepared. No warranty, expressed or implied, is made. The scope of our work did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous or toxic substances in the soil, surface water, or groundwater at this site.

We appreciate this opportunity to be of service.

Sincerely,

GEOPACIFIC ENGINEERING, IN

Thomas Torkelson, E.I.T
Engineering Staff

REGISTERED PROFESSIONAL ENGINEER 90013PE OREGON MAY 22, 2015 BENJAMIN G. ANDERSON
Expires: 12/31/19

Benjamin G. Anderson, P.E.
Senior Engineer

REFERENCES

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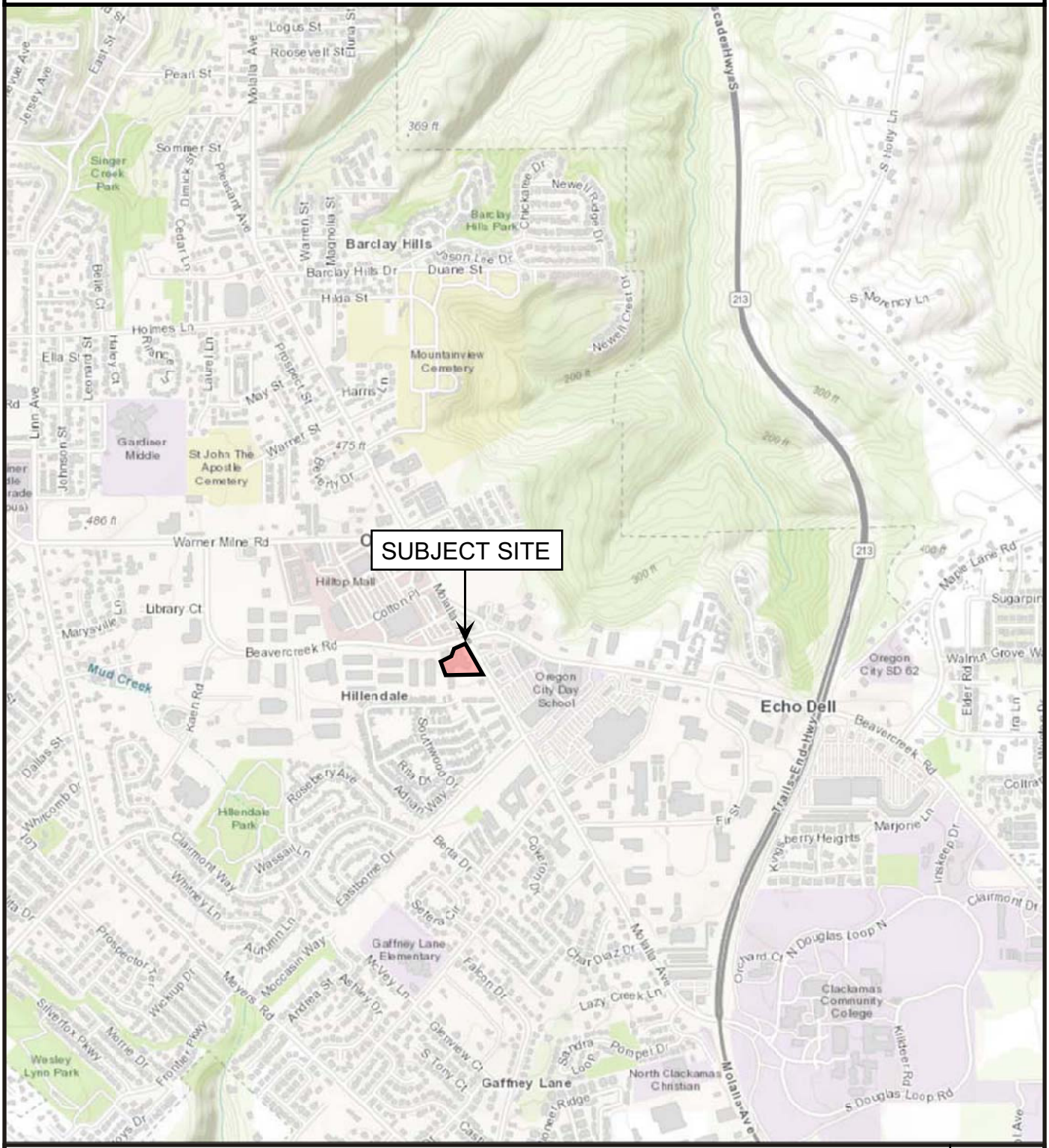
(http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm.).

FIGURES

GeoPacific Engineering, Inc.
14835 SW 72nd Avenue
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 941-9281

SITE VICINITY MAP



Base map: DOGAMI HAZVU Maps 2018
Date: 8/09/2018
Drawn by: TJT

1:24,000
0 0.13 0.25 0.5 mi
0 0.23 0.45 0.9 km

North

Project: Marquis Oregon City Parking Lot Oregon City, Oregon 97045	Project No. 18-4984	FIGURE 1

GeoPacific Engineering, Inc.
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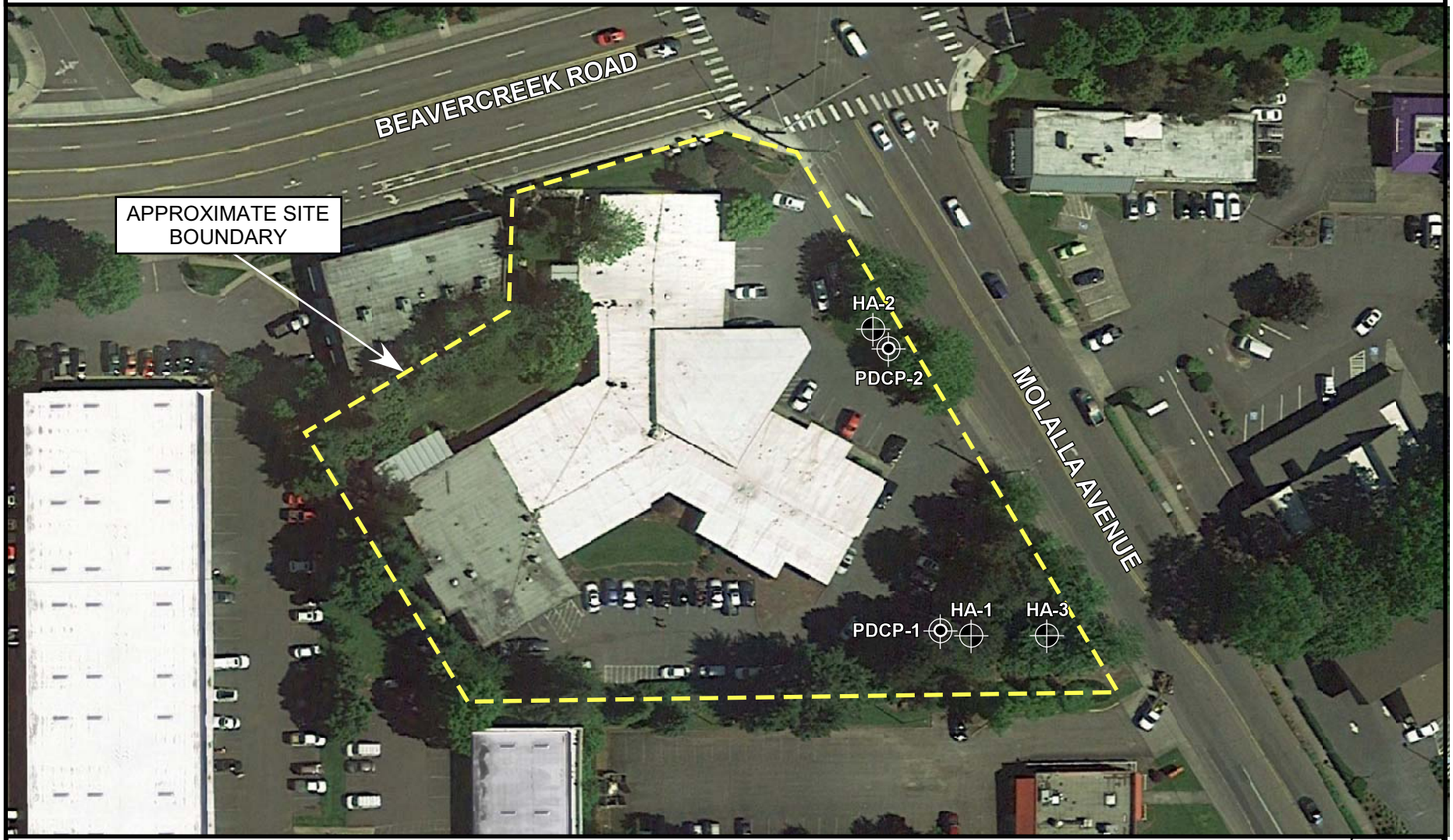
SITE AERIAL AND EXPLORATION LOCATIONS



Legend: Base Map Obtained From Google Earth 2018

HA-1 Hand Auger Boring Designation and Approximate Location

PDCP-1 PDCP Testing Designation and Approximate Location

APPROXIMATE SCALE (FEET)

40 0 40 80

Drawn by: TJT
Date: 8/09/2018

North

Project: Marquis Oregon City Parking Lot
1680 Molalla Avenue
Oregon City, Oregon 97045

Project No. 18-4984

FIGURE 2

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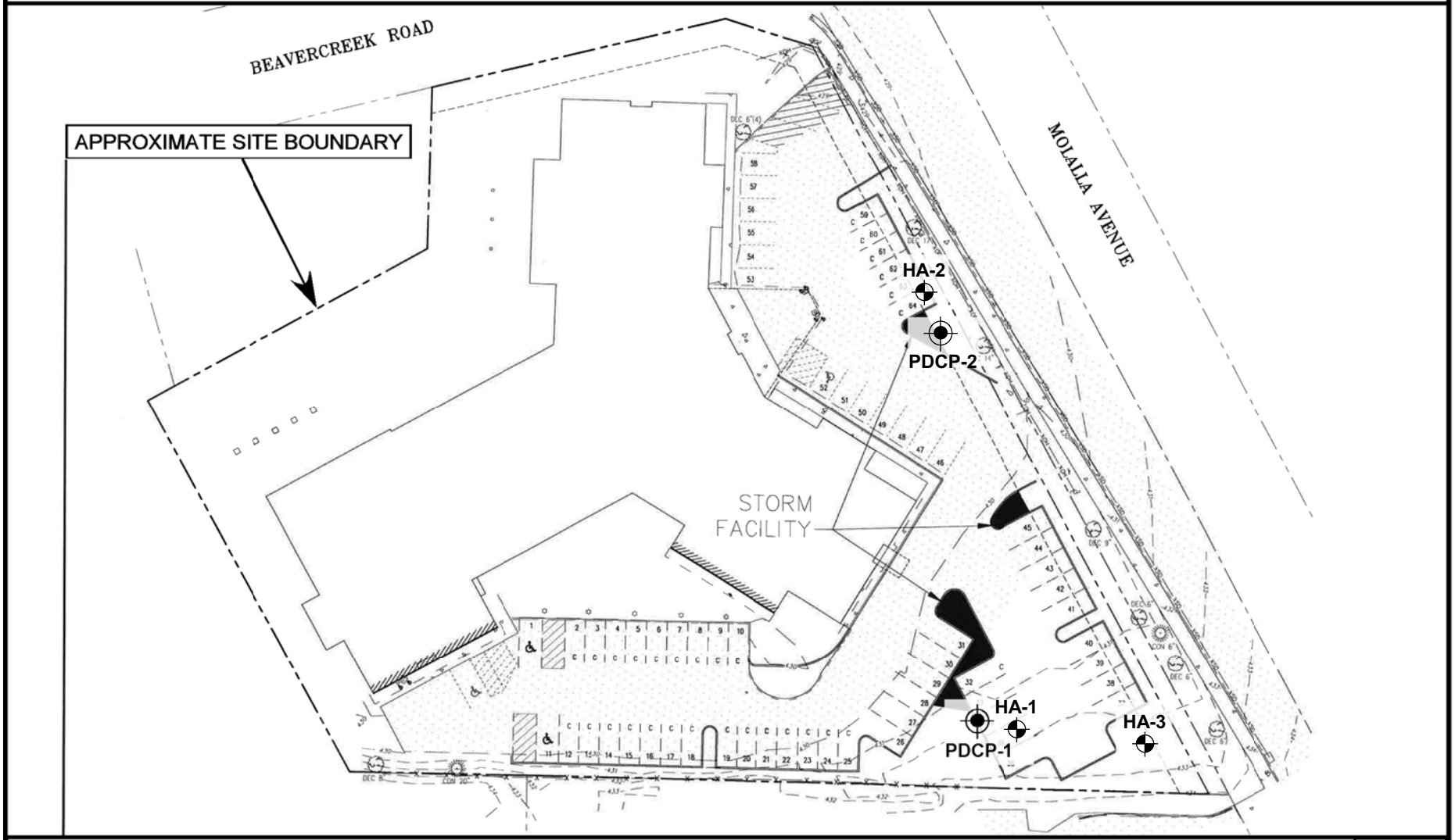
SITE PLAN AND EXPLORATION LOCATIONS



Legend: Base Map Provided By Emerio Designs

HA-1 Hand Auger Boring Designation and Approximate Location

PDCP-1 PDCP Designation and Approximate Location

APPROXIMATE SCALE (FEET)
30 0 30 60

Drawn by: TJT
Date: 8/09/2018

North

Project: Marquis Oregon City Parking Lot
1680 Molalla Avenue
Oregon City, Oregon 97045

Project No. 18-4984

FIGURE 3

EXPLORATION LOGS

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HAND AUGER LOG

Project:	Project No.	Hand Auger No.
Marquis Oregon City Parking Lot 1680 Molalla Avenue Oregon City, Oregon	18-4984	**HA-1**

Depth (ft)	Pocket Penetrometer (tons/ft²)	Sample Type	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Water Bearing Zone	Material Description
0						SILT (ML), brown, medium stiff, moderately organic, trace fine and medium roots damp, surfaced with pine needles and leaves. (Topsoil).
1						Lean CLAY (CL), reddish brown, stiff to very stiff, with trace fragments of weathered rock, trace black and orange staining, damp. (Residual Soil). 1 inch thick layer of gray ash 1.5 feet bgs.
2						Grades to moist and with more pronounced angular basalt at 2.2 feet bgs.
3						
4						Highly weathered BASALT, light to dark gray, extremely soft (R0), reddish-brown matrix of silty clay, black staining, moist. (Boring Lava)
5						Hand auger terminated at 4.6 feet bgs due to refusal on weathered rock. No seepage or groundwater encountered No caving observed
6						
7						
8						

LEGEND

Date Excavated: 07/27/2018

Logged By: TJT

Surface Elevation:

GeoPacific Engineering, Inc.
14835 SW 72nd Avenue
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 941-9281

HAND AUGER LOG

Project:	Project No.	Hand Auger No.
Marquis Oregon City Parking Lot 1680 Molalla Avenue Oregon City, Oregon	18-4984	**HA-2**

Depth (ft)	Pocket Penetrometer (tons/ft²)	Sample Type	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Water Bearing Zone	Material Description
1						SILT (ML), brown, medium stiff, moderately organic, contains subrounded to angular gravel, with trace fine and medium roots, damp, 6 inches of topsoil developed on the surface, surfaced with grass. (Undocumented Fill).
2						Lean CLAY (CL), reddish brown, stiff to very stiff, with trace fragments of weathered rock, trace black and orange staining, damp. (Residual Soil). Grades to with more pronounced angular basalt at 2.0 feet bgs.
3						
4						Grades to moist at 3.5 feet bgs.
5						Highly weathered BASALT, light to dark gray, extremely soft (R0), reddish-brown matrix of silty clay, black staining, moist. (Boring Lava). Infiltration testing conducted at 4.6 feet bgs. Measured rate = 0.0 inches/hour
6						Hand auger terminated at 5,5 feet bgs due to refusal on weathered rock. Infiltration testing conducted at 4.6 feet below the ground surface. Measured Rate = 0.0 inches per hour. No seepage or groundwater encountered No caving observed
7						
8						

LEGEND

Date Excavated: 07/27/2018

Logged By: TJT

Surface Elevation:

GeoPacific Engineering, Inc.
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Tel: (503) 598-8445 Fax: (503) 941-9281

HAND AUGER LOG

Project:	Project No.	Hand Auger No.
Marquis Oregon City Parking Lot 1680 Molalla Avenue Oregon City, Oregon	18-4984	**HA-3**

Depth (ft)	Pocket Penetrometer (tons/ft²)	Sample Type	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Water Bearing Zone	Material Description
0						SILT (ML), brown, medium stiff, moderately organic, trace fine and medium roots damp, surfaced with pine needles and leaves. (Topsoil).
1						Lean CLAY (CL), reddish brown, stiff to very stiff, with trace fragments of weathered rock, trace black and orange staining, damp. (Residual Soil). 1 inch thick layer of gray ash 1.5 feet bgs.
2						Grades to with more pronounced angular basalt at 2.0 feet bgs.
3						Grades to moist at 3.0 feet bgs.
4						Highly weathered BASALT, light to dark gray, extremely soft (R0), reddish-brown matrix of silty clay, black staining, moist. (Boring Lava).
5						Hand auger terminated at 4.2 feet bgs due to refusal on residual soil. No seepage or groundwater encountered No caving observed
6						
7						
8						

LEGEND

Date Excavated: 07/27/2018

Logged By: TJT

Surface Elevation:

PDCP TESTING DATA

GeoPacific Engineering, Inc.
Real-World Geotechnical Solutions
Investigiation, Design, Construction Support

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Fax (503) 941-9281

Portable Dynamic Cone Penetrometer (PDCP) / California Bearing Ratio (CBR) Correlation

Project: Marquis Parking Lot **Date: 07.27.2018** **Existing A/C Thickness: none** **Test:** PDCP-1
Project No. 18-4984 **Engineer: TJT** **Existing Base Aggregate Thickness: none**
Location: South of Existing Parking Lot **Subgrade: Native Lean CLAY** **Notes:** Location on Figure 2

Length of shaft	Height (from ref) at start	Depth below ground at start	Length of shaft	Height (from ref) at start	Depth below ground at start
mm	mm	mm	in	in	in
1320	1320	110	52.0	48.0	4.3

Blows	Height(from ref) in	Height(from ref) mm	Depth (below ground) mm	Depth (inches below ground)	Depth (feet below ground)	mm/blow	CBR
1	4.92	125	125	4.92	0.41	15.00	14.1
5	6.10	155	155	6.10	0.51	6.00	39.3
5	6.89	175	175	6.89	0.57	4.00	61.8
5	8.07	205	205	8.07	0.67	6.00	39.3
5	8.86	225	225	8.86	0.74	4.00	61.8
10	10.83	275	275	10.83	0.90	5.00	48.1
10	12.80	325	325	12.80	1.07	5.00	48.1
10	16.34	415	415	16.34	1.36	9.00	24.9
10	20.87	530	530	20.87	1.74	11.50	18.9
10	24.80	630	630	24.80	2.07	10.00	22.2
10	28.15	715	715	28.15	2.35	8.50	26.6
10	30.71	780	780	30.71	2.56	6.50	35.9
10	32.48	825	825	32.48	2.71	4.50	54.2
10	34.65	880	880	34.65	2.89	5.50	43.3
10	37.01	940	940	37.01	3.08	6.00	39.3
10	39.76	1010	1010	39.76	3.31	7.00	33.0
10	41.93	1065	1065	41.93	3.49	5.50	43.3
10	44.49	1130	1130	44.49	3.71	6.50	35.9
					Average	6.97	38.3

Measurements are after each blow. Mm/blow is difference between previous and current blow

Portable Dynamic Cone Penetrometer (PDCP) / California Bearing Ratio (CBR) Correlation

Project: Marquis Parking Lot **Date: 07.27.2018** **Existing A/C Thickness: none** **Test:** PDCP-2
Project No. 18-4984 **Engineer: TJT** **Existing Base Aggregate Thickness: none**
Location: East of Existing Parking Lot **Subgrade: Native Lean CLAY** **Notes:** Location on Figure 2

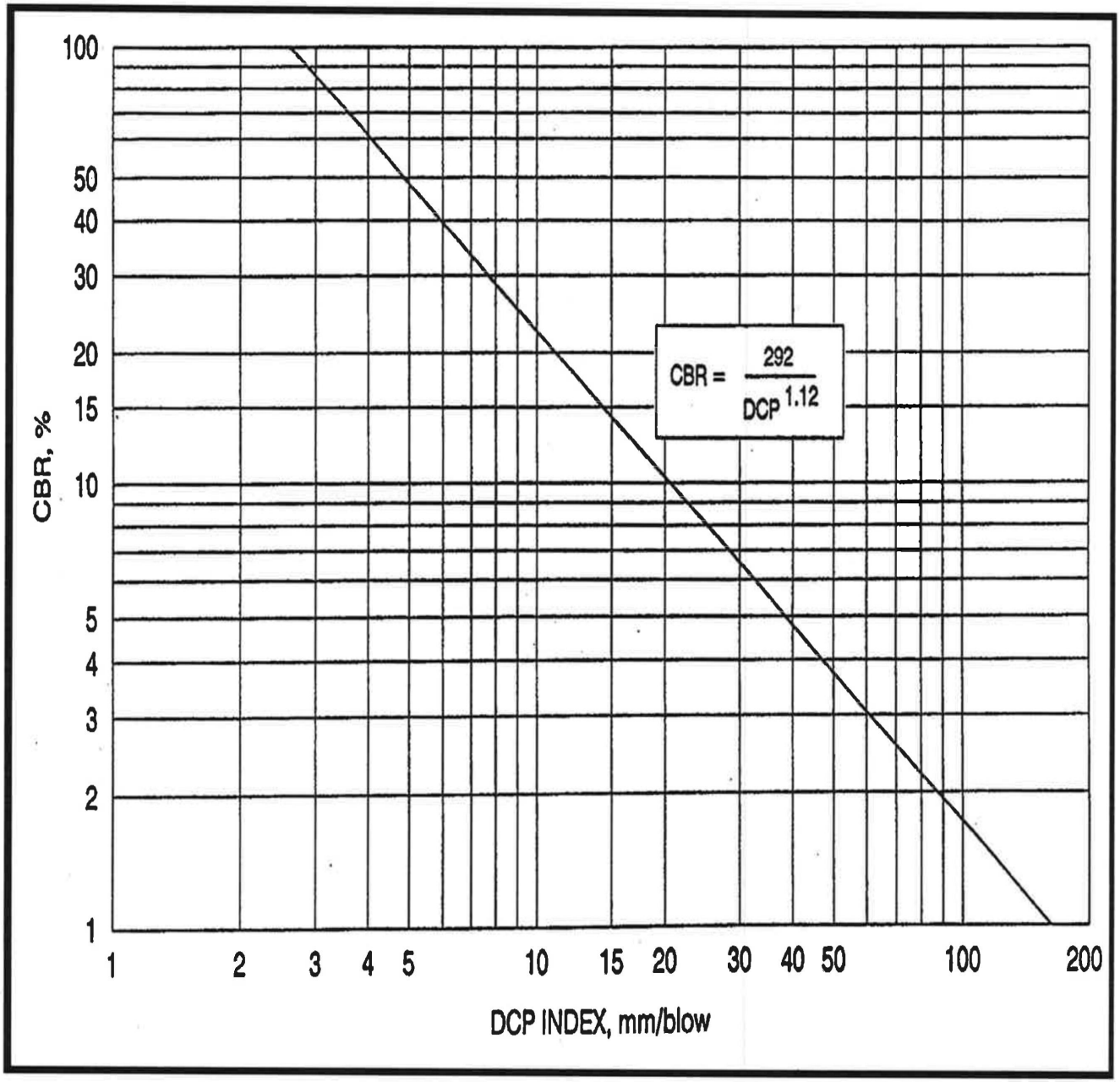
Length of shaft	Height (from ref) at start	Depth below ground at start	Length of shaft	Height (from ref) at start	Depth below ground at start
mm	mm	mm	in	in	in
1320	1320	375	52.0	48.0	14.8

Blows	Height(from ref) in	Height(from ref) mm	Depth (below ground) mm	Depth (inches below ground)	Depth (feet below ground)	mm/blow	CBR
5	17.13	435	435	17.13	1.43	12.00	18.1
5	18.50	470	470	18.50	1.54	7.00	33.0
5	19.88	505	505	19.88	1.66	7.00	33.0
5	21.26	540	540	21.26	1.77	7.00	33.0
5	22.24	565	565	22.24	1.85	5.00	48.1
10	24.80	630	630	24.80	2.07	6.50	35.9
10	27.36	695	695	27.36	2.28	6.50	35.9
10	30.31	770	770	30.31	2.53	7.50	30.6
10	32.68	830	830	32.68	2.72	6.00	39.3
10	34.65	880	880	34.65	2.89	5.00	48.1
10	36.42	925	925	36.42	3.03	4.50	54.2
10	38.78	985	985	38.78	3.23	6.00	39.3
10	41.93	1065	1065	41.93	3.49	8.00	28.4
5	43.90	1115	1115	43.90	3.66	10.00	22.2
5	46.06	1170	1170	46.06	3.84	11.00	19.9
3	47.44	1205	1205	47.44	3.95	11.67	18.6
					Average	6.95	33.6

Measurements are after each blow. Mm/blow is difference between previous and current blow

DCP Index mm/blow	CBR %	DCP Index mm/blow	CBR %
<3	100	51	3.6
3	80	52	3.5
4	60	53-54	3.4
5	50	55	3.3
6	40	56-57	3.2
7	35	58	3.1
8	30	59-60	3.0
9	25	61-62	2.9
10-11	20	63-64	2.8
12	18	65-66	2.7
13	16	67-68	2.6
14	15	69-71	2.5
15	14	72-74	2.4
16	13	75-77	2.3
17	12	78-80	2.2
18-19	11	81-83	2.1
20-21	10	84-87	2.0
22-23	9	88-91	1.9
24-26	8	92-96	1.8
27-29	7	97-101	1.7
30-34	6	102-107	1.6
35-38	5	108-114	1.5
39	4.8	115-121	1.4
40	4.7	122-130	1.3
41	4.6	131-140	1.2
42	4.4	141-152	1.1
43	4.3	153-166	1.0
44	4.2	166-183	0.9
45	4.1	184-205	0.8
46	4.0	206-233	0.7
47	3.9	234-271	0.6
48	3.8	272-324	0.5
49-50	3.7	>324	<0.5

Figure 4: Tabulated Correlation of CBR versus DCP Index


100
50
40
30
20
15
10
5
4
3
2
1
CBR, %
CBR = 292 / DCP 1.12
1
2
3
4
5
10
15
20
30
40
50
100
200
DCP INDEX, mm/blow

(8)

PAVEMENT DESIGN CALCULATIONS

==========

DARWin(tm) - Pavement Design

A Proprietary AASHTOWARE(tm)
Computer Software Product

Flexible Structural Design Module

GeoPacific Engineering, Inc.
14835 SW 72nd Avenue
Portland, OR 97224
Thomas J. Torkelson

Project Description
18-4984, Marquis Oregon City Parking, Private Parking and Drive Areas

Flexible Structural Design Module Data

18-kip ESALs Over Initial Performance Period	75,000
Initial Serviceability	4.2
Terminal Serviceability	2.5
Reliability Level (%)	85
Overall Standard Deviation	.5
Roadbed Soil Resilient Modulus (PSI)	9,000
Stage Construction	1
Calculated Structural Number	2.06

Specified Layer Design

Layer	1
Material Description	AC
Structural Coefficient (Ai)	.42
Drainage Coefficient (Mi)	1
Layer Thickness (Di) (in)	3.00
Calculated Layer SN	1.26

Layer	2
Material Description	3/4"-0
Structural Coefficient (Ai)	.1
Drainage Coefficient (Mi)	1
Layer Thickness (Di) (in)	2.00
Calculated Layer SN	.20

Layer	3
Material Description	1.5"-0
Structural Coefficient (Ai)	.1
Drainage Coefficient (Mi)	1
Layer Thickness (Di) (in)	8.00
Calculated Layer SN	.80

Total Thickness (in)	13.00
Total Calculated SN	2.26

Pre-Application Conference Notes

PA 18-16: Parking Lot Expansion at Marquis

Pre-Application Conference Date: **4/03/2018**

Proposed Project:

- Parking Lot Expansion

General Information:

- Location: 1680 Molalla Avenue, Clackamas County Map 3-2E-05C, Tax Lot 00301
- Zoning: "C" Commercial
- No Overlay Districts
- Applications anticipated:
  - Planning Commission Parking Adjustment (Type III): $989
  - Planning Commission Variance: $2,602
  - Mailing Labels: $16 or provided by applicant
  - Site Plan and Design Review:

Less than $500,000	$2,156 plus 0.007 x project cost
$500,000 - $3,000,000	$3,591 plus 0.005 x project cost
Over $3,000,000	$12,215 plus 0.003 x project cost
Maximum Fee	$57,296

Timing and Process:

This application is a **Type III** decision process involving a parking adjustment, major variance, and site plan and design review. Type III decisions require a minimum of one public hearing before the Planning Commission and involve the greatest amount of discretion and evaluation of subjective approval standards, yet are not required to be heard by the city commission, except upon appeal.

Transportation Impacts:

The applicant will need to have a traffic engineer conduct a limited and specific transportation study to address key requirements of the City's *Guidelines for Transportation Impact Analyses* available on the Oregon City website.

A parking lot does not generally generate trips, but the proposed expansion can be expected to result in additional activity and complicate operations at the site driveways.

Because of the unique aspects of this project, it will be sufficient for the applicant's traffic engineer to limit his/her analysis to the following three requirements of the TAL:

> 3. Documentation that all site access driveways meet Oregon City Private Access Driveway Width Standards.
> 5. Documentation that all new site accesses and/or public street intersections meet AASHTO intersection sight distance guidelines.

6. Documentation that there are no inherent safety issues associated with the design and location of the site access driveways.

One additional aspect that should be addressed in the design a change in the diagonal parking in the vicinity of the existing north driveway. The current configuration of the parking is such that vehicles utilizing some existing spaces will back onto the public sidewalk when they seek to exit the space. This is a dangerous and unacceptable maneuver. The applicant should either:

1) eliminate the parking spaces that cause an encroachment onto the public sidewalk for any part of the parking maneuver, or
2) reconfigure the parking space (e.g. back-in spaces) such that potentially unsafe maneuvers on the sidewalk or in the public right-of-way are eliminated.

The applicant's traffic engineer can likely help with either of these approaches.

Details for a TAL can be found in Section 3.1 of the *Guidelines*.

The applicant's traffic engineer is welcome to contact the city's traffic engineering consultant, John Replinger, at Replinger-Associates@comcast.net or at 503-719-3383.

Site Plan and Design Review:
The pre-application materials lack the specificity to confirm compliance with all applicable standards. Please include details for all structures, parking lots, pavement, development, etc. in the development application. The applicant is required to demonstrate compliance with all applicable criteria.

Items to consider:

17.52.020 - Number of automobile spaces required.
A. The number of parking spaces shall comply with the minimum and maximum standards listed in Table 17.52.020. The parking requirements are based on spaces per one thousand square feet net leasable area unless otherwise stated.

Land Use	Minimum	Maximum
Senior housing, including congregate care, residential care and assisted living facilities; nursing homes and other types of group homes	*1 per 7 beds*	*1 per 5 beds*

- Describe the use of the site in detail, including but not limited to how the units are configured as senior housing vs multi-family. How many kitchens are located onsite, etc? Plan states that there are 102 beds, allowing a minimum of 15 and maximum of 21 parking stalls. This will require a parking adjustment (explained below).
- 17.52.060.D.d – No more than eight contiguous parking spaces shall be created without providing an interior landscaping planter. One area of the proposal is not in compliance with this subsection.
- Parking areas are not permitted in front of buildings. This will require a variance (explained below).
- In the "Commercial" Zoning District, 15% of the lot must be landscaped including interior parking lot landscaping.
- Parking angle space dimensions appear to be in compliance with 17.52.030.
- Up to 35% of the minimum required parking may be compact (22 stalls based on 63 proposed). The application exceeds the minimum number of parking stalls and the number of stalls in excess of the minimum may be compact in size.
- New garbage area to comply with standards in OCMC 17.62.085.

- Submit documentation identifying that the parking lot in front of the building was approved previously.

The following was unable to be calculated based on the specificity of the plans submitted:

- A maximum of 85% of the site can be covered by building and parking lot.
- 17.62.060.C – Building buffer landscaping between proposed parking lot and building
- 17.52.060.B – Five foot wide landscape buffer where parking lot abuts right-of-way.
- 17.52.060.B.1.a – Trees spaced a maximum of 35 feet apart in the perimeter parking landscaped area.
- 17.52.040 – Bicycle parking. Care facilities require a minimum of 1 bicycle parking per 30 auto spaces (minimum of 2). 30% must be covered (or a minimum of 1). Therefore, two parking spaces are required and one must be covered. There are additional location requirements to look at.
- 17.52.060.A.2. – All areas in a parking lot not used for parking, maneuvering, or circulation shall be landscaped.
- Outdoor lighting (photometric plan) - Identify if new lighting proposed. Applicable lighting requirements apply to installation of new lights, bicycle parking areas, pedestrian walkways in parking lots, and lighting at abutting property lines.
    - .5 footcandle on adjacent properties

Planning Commission Adjustment of Parking Standards (Type III Application):

- A Planning Commission adjustment of parking standards is required because the applicant is requesting more than the maximum number of permitted parking stalls.
- A parking study by an engineer is required to show the site is consistently full. The study must include parking surveys at various times of the day and various days of the week. We recommend a minimum of 5 days a week and 5 times each day.
- Explain why the parking identified in the Oregon City Municipal Code is insufficient. Why does it work for other facilities but not this one? Explain the configuration of the interior of the site. Are there multiple suites with their own kitchen including permanent cooking facilities such as a stove or oven? If so, should the parking count be more similar to a multi-family?
- Approval Criteria
    - Documentation: Document that the individual project will require an amount of parking that is different from that required after all applicable reductions have been taken.
    - Parking analysis for surrounding uses and on-street parking availability: The applicant must show that there is a continued fifteen percent parking vacancy in the area adjacent to the use during peak parking periods and that the applicant has permission to occupy this area to serve the use pursuant to the procedures set forth by the community development director.
        - For the purposes of demonstrating the availability of on street parking as defined in [Section] 17.52.020.B.3., the applicant shall undertake a parking study during time periods specified by the community development director. The time periods shall include those during which the highest parking demand is anticipated by the proposed use. Multiple observations during multiple days shall be required. Distances are to be calculated as traversed by a pedestrian that utilizes sidewalks and legal crosswalks or an alternative manner as accepted by the community development director.
            - Minimum of five days (weekends and weekdays)
            - Two hour increments during hours of operation
        - The onsite parking requirements may be reduced based on the parking vacancy identified in the parking study.
    - Function and Use of Site: The applicant shall demonstrate that modifying the amount of required parking spaces will not significantly impact the use or function of the site and/or adjacent sites.
    - Compatibility: The proposal is compatible with the character, scale and existing or planned uses of the surrounding neighborhood.

- Safety: The proposal does not significantly impact the safety of adjacent properties and rights-of-way.
- Services: The proposal will not create a significant impact to public services, including fire and emergency services.

Planning Commission Variance:

- OCMC 17.62.050.2.A. states that parking areas shall be located behind buildings, below buildings, or on one or both sides of the building. The new parking lot area where 15 new spaces are proposed is considered in front of the building and is therefore not permitted. The applicant has not submitted sufficient evidence for staff to support this Variance.
- A variance is needed for all other standards not being met.
- A Planning Commission variance is required for the placement of the parking lot in front of the building.
- A variance may be granted only in the event that *all* of the following conditions exist:
  - That the variance from the requirements is not likely to cause substantial damage to adjacent properties by reducing light, air, safe access, or other desirable or necessary qualities otherwise protected by this title;
  - That the request is the minimum variance that would alleviate the hardship;
  - Granting the variance will equal or exceed the purpose of the regulation to be modified;
  - Any impacts resulting from the adjustment are mitigated;
  - No practical alternatives have been identified which would accomplish the same purpose and not require a variance; and
  - The variance conforms to the comprehensive plan and the intent of the ordinance being varied.

Non-Conforming:

- The site is nonconforming for a variety of reasons including but not limited to building placement, parking lot placement, building design. As the site is nonconforming, any exterior improvement of $75,000 or more triggers non-conforming upgrades to the following:
  - Pedestrian circulation systems, as set out in the pedestrian standards that apply to the sites;
  - Minimum perimeter parking lot landscaping;
  - Minimum interior parking lot landscaping;
  - Minimum site landscaping requirements;
  - Bicycle parking by upgrading existing racks and providing additional spaces in order to comply with Chapter 17.52—Off-Street Parking and Loading;
  - Screening; and

- Paving of surface parking and exterior storage and display areas.

- Upgrades are limited to 10% of the construction cost. All landscaping, etc. required with the parking lot expansion do not count toward the nonconforming upgrades.

Additional items to provide. The City could not review compliance with the items below:

- A tree removal, protection and mitigation plan is required pursuant with OCMC 17.41 by qualified professional if required
- Identification of all loading areas
- Landscaping plan by a landscape architect or other qualified professional
- Outdoor lighting (photometric plan)
  - .5 footcandle on adjacent properties

Notes:

- A Neighborhood Association meeting is required prior to a complete application. The site is in the Barclay Hills Neighborhood Association.
  Contact: barclayhillsna@gmail.com
  Chair: Tony Uzuegbunam, fred.don1@gmail.com
  Vice Chair: Mark J. Matheson, mark.matheson@drteamsint.com
  Treasurer: Shelley Batty, shelleyba@live.com
  CIC Representative: Tony Uzuegbunam, fred.don1@gmail.com
  CIC Representative: Mark J. Matheson, mark.matheson@drteamsint.com
  Meetings: July 12, 2016, September 13, 2016, November 8, 2016
  Meeting Location: St. John the Apostle Cemetery, 445 Warner Road, Oregon City, 7:00 PM
- Notice of the proposed development has been provided to the State Historic Preservation Office (SHPO) and affected tribes. Responses and comments received have been provided.

Planning Division

Carlos Callava, Assistant Planner with the Oregon City Planning Division reviewed your pre-application. You may contact Carlos at 503.496.1562 or ccallava@orcity.org

Development Services Division (Utilities/Public Improvements/SDC's etc):

Sang Pau, Development Engineer with the Oregon City Development Services Division reviewed your pre-application. You may contact Sang at 503.974.5503 or spau@orcity.org.

Building Division:

You may contact Mike Roberts, Building Official at 503.496.1517 or by email at mroberts@orcity.org.

Clackamas Fire District:

Questions can be directed to Mike Boumann, Lieutenant Deputy Fire Marshal of Clackamas Fire District #1. You may contact Mr. Boumann at (503)742-2660 or michaelbou@ccfd1.com.

Oregon City Municipal Code Criteria:

The following chapters of the Oregon City Municipal Code (OCMC) may be applicable to this proposal:
OCMC 12.04 - Streets, Sidewalks and Public Places
OCMC 12.08 - Public and Street Trees
OCMC 13.12 – Stormwater Management
OCMC 15.48 – Grading, Filling and Excavating
OCMC 17.29 – C General Commercial District
OCMC 17.47 – Erosion and Sediment Control
OCMC 17.41 – Tree Protection Standards
OCMC 17.50 – Administrative Processes

OCMC 17.52 – Off-Street parking and Loading
OCMC 17.62 – Site Plan and Design Review
OCMC 17.54.100 – Fences, Hedges and Walls
OCMC 17.58 – Nonconforming Uses, Structures and Lots
OCMC 17.60 – Variances

**A template for your submittal with the applicable criteria has been emailed concurrently with these notes.*

Pre-application conferences are required by Section 17.50.050 of the City Code, as follows:
A. Preapplication Conference. Prior to submitting an application for any form of permit, the applicant shall schedule and attend a preapplication conference with City staff to discuss the proposal. To schedule a preapplication conference, the applicant shall contact the Planning Division, submit the required materials, and pay the appropriate conference fee. At a minimum, an applicant should submit a short narrative describing the proposal and a proposed site plan, drawn to a scale acceptable to the City, which identifies the proposed land uses, traffic circulation, and public rights-of-way and all other required plans. The purpose of the preapplication conference is to provide an opportunity for staff to provide the applicant with information on the likely impacts, limitations, requirements, approval standards, fees and other information that may affect the proposal. The Planning Division shall provide the applicant(s) with the identity and contact persons for all affected neighborhood associations as well as a written summary of the preapplication conference. Notwithstanding any representations by City staff at a preapplication conference, staff is not authorized to waive any requirements of this code, and any omission or failure by staff to recite to an applicant all relevant applicable land use requirements shall not constitute a waiver by the City of any standard or requirement.
B. A preapplication conference shall be valid for a period of six months from the date it is held. If no application is filed within six months of the conference or meeting, the applicant must schedule and attend another conference before the City will accept a permit application. The community development director may waive the preapplication requirement if, in the Director's opinion, the development does not warrant this step. In no case shall a preapplication conference be valid for more than one year.

NOTICE TO APPLICANT: A property owner may apply for any permit they wish for their property. HOWEVER, THERE ARE NO GUARANTEES THAT ANY APPLICATION WILL BE APPROVED. No decisions are made until all reports and testimony have been submitted. This form will be kept by the Community Development Department. A copy will be given to the applicant. IF the applicant does not submit an application within six (6) months from the Pre-application Conference meeting date, a NEW Pre-Application Conference will be required.

OREGON CITY

Public Works – Development Services

625 Center Street | Oregon City OR 97045
Ph (503) 657-0891 | Fax (503) 657-7829

DEVELOPMENT SERVICES
PRE-APPLICATION MEETING NOTES

Planning Project Number:	PA 18-16
Address:	1680 Molalla, Oregon City, OR 97045
Map Number(s):	3-2E-05C
Tax Lot(s):	00301
Project Name:	Marquis Parking Expansion
Meeting Date:	April 3rd, 2018
Reviewer(s):	Sang Pau

General Comments

1. The applicant must provide construction plans for required public improvements and private stormwater facilities in compliance with City Public Works standards. All applicable conditions of approval outlined in the notice of decision must be addressed and the construction plans must be reviewed and approved prior to issuance of building permits.

2. Plan review and fees shall be due prior to commencement of plan review by Public Works. Inspection fees shall be due prior to Public Works plan approval.

Streets

1. The development property fronts Beavercreek Road, which is fully improved.

2. The development property fronts Molalla Avenue, which may require pavement widening.

3. Molalla Avenue has an approximately 90-foot-wide right-of-way (ROW) with 45 feet on the subject property side of the centerline.

4. Molalla Avenue is classified as a "Major Arterial" road. This type of road, when adjacent to a property zoned as commercial, may have up to a 110-foot-wide ROW consisting of, (4) 12-foot-wide lanes, (1) 12-foot-wide center turn lane, (2) 6-foot-wide bike lanes, (2) 8-foot-wide parking lanes, (2) 11-foot-wide pedestrian corridor with 5-foot square tree wells.

5. To maintain continuity with the existing roadway, the portion of Molalla Avenue fronting the property will not be required to have a parking lane. The development will required to dedicate approximately 2' of ROW so that the Molalla Avenue may accommodate the following improvement on the subject property side of the centerline – 47 feet of ROW consisting of (2) 12-foot-wide lanes,

6-foot-wide for half of a center turn lane, (1) 6-foot-wide bike lane, (1) 11-foot-wide pedestrian corridor with 5-foot square tree wells.

6. The development will be required to provide ROW dedication to ensure there is, at least, 47 feet of ROW on the subject property side of the centerline of Molalla Avenue.

7. The existing driveways off Molalla Avenue will need to be adjusted to meet ADA requirements.

8. The northern most driveway from Molalla Avenue shall be clearly marked for ingress only maneuvers onto the subject property.

9. The development will be required to provide a 10-foot-wide Public Utility Easement (PUE) along all property lines fronting an existing or proposed ROW.

10. Lighting along the frontage of the development will be improved with the Molalla Avenue Boulevard & Bikeway Improvements Plan.

11. Reduction to the standard improvements, ROW dedication and other deviations from the City's street design standards may be requested through the modification process outlined in OCMC 12.04.007. Proposed modifications may require additional evidence for review.

Stormwater

1. The following are General Thresholds from the Stormwater and Grading Design Standard (Section 1.2.1), which can be found online at: https://www.orcity.org/sites/default/files/fileattachments/public_works/page/4224/final_manual_0.pdf

    A. Development activities that result in 5,000 square feet of new or replaced impervious surface, cumulative over a 5-year period.

    B. Development activities that will result in the **creation of more than 500 square feet of new impervious surface within a Natural Resource Overlay District (NROD)** (as defined by Oregon City Municipal Code [OCMC] 17.49), cumulative over a 5-year period.

    C. Development activities that will **disturb 1,000 square feet of existing impervious surface within a Natural Resource Overlay District (NROD)** (as defined by Oregon City Municipal Code [OCMC] 17.49), cumulative over a 5-year period.

2. The project, as described in the Pre-Application submittal, is within part A of the above General Thresholds. Projects within the General Thresholds are subject to the requirements of the City's Stormwater and Grading Design Standards. In such cases applicants must submit a completed Site

Assessment and Planning Checklist (and other items as described in Section 9.1.1 of the Stormwater and Grading Design Standards) as part of the land use application process. At a minimum the applicant should submit a preliminary stormwater report addressing the following items from Section 9.1.1 of the City's Stormwater and Grading Design Standards.

A. Stormwater management strategy
B. A site plan showing an adequately sized stormwater facility based on Stormwater best management practices (BMP) Sizing Tool or sized using the Engineered Method (as defined by City's Stormwater and Grading Design Standards).
C. A geotechnical report or a Natural Resource Conservation Service (NRCS) soils report documenting onsite infiltration and soil conditions in support of a proposed stormwater management strategy.
D. Downstream analysis which extends to the distance where the project site contributes less than 15 percent of the cumulative tributary drainage area or 1,500 feet downstream of the approved point of discharge, whichever is greater, as required by Chapter 5 of the Stormwater and Grading Design Standards.

3. The nearest downstream public stormwater facility is an inlet located off Molalla Avenue near the intersection of Beavercreek Road. This structure directs flows southwest through a 12-inch pipe to the "Newell" basin.

Water

1. There is an existing water vault which may be within the ROW once required dedication of ROW is provided. This water vault must be relocated onto private property prior to the commencement of the Molalla Avenue Boulevard & Bikeway Improvements Project.

Other

2. The proposed development does not reside within the Natural Resource Overlay District (NROD).

3. The proposed development does not reside within the Geologic Hazard area.

4. The proposed development resides within a High Water Table area. If the high water table part of a larger groundwater system rather than perched water, there may be addition requirements for the design of infiltration stormwater facilities.

From: Trisha Clark
To: Kelly Reid
Subject: Marquis Parking Lot
Date: Friday, July 12, 2019 2:59:04 PM

Hello Kelly,
Please extend our timeline out to Nov. 1 2019 for this project.
Thank you much, Trisha

REPLINGER & ASSOCIATES LLC
TRANSPORTATION ENGINEERING

July 24, 2019

Ms. Kelly Reid
City of Oregon City
PO Box 3040
Oregon City, OR 97045

SUBJECT: REVIEW OF TRANSPORTATION ANALYSIS LETTER – MARQUIS MEMORY CARE PARKING EXPANSION – SP18-119

Dear Ms. Reid:

In response to your request, I have reviewed the Transportation Analysis Letter (TAL) submitted for the proposed expansion of the parking lot for the Marquis Memory Care facility at 1680 Molalla Avenue. The site is in the southwest quadrant of the intersection of Beavercreek Road and Molalla Avenue. The TAL was prepared under the direction of Frank Charbonneau, PE of Charbonneau Engineering. The TAL is dated July 10, 2018.

The applicant proposes to expand the parking lot and make related modifications to serve the existing facility. No expansion of the building is proposed.

Overall

I find the TAL addresses the city's requirements and provides an adequate basis to evaluate impacts of the proposed development.

Comments

1. ***Trip Generation.*** The TAL explains that the parking lot is proposed to be expanded from 42 to 64 spaces. The engineer explains that since the building itself will not expand that the added parking capacity will not result in additional trips. Based the trip generation data in the Institute of Transportation Engineers' *Trip Generation Manual,* I find this to be a reasonable argument. It is also reasonable to conclude that a few added trips that could potentially result from the increase in parking lot capacity would not alter the conclusions in the TAL.

2. ***Access Locations.*** According to the TAL, the site has two access points on Molalla Avenue. Because of the on-site circulation patterns and the parking lot layout, the

north access effectively functions as an ingress only access. This access point is close to the signalized intersection of Molalla Avenue and Beavercreek Road. The fact that it functions as an entrance only makes it acceptable. The south access serves both entering and exiting traffic.

3. ***Driveway Width.*** The TAL indicates both access points meet city requirements for driveway width.

4. ***Intersection Spacing.*** No new street intersections are proposed.

5. ***Sight Distance.*** The engineer measured sight distance at the driveways. He measured sight distance in excess of 500 feet at both locations and identified no changes were needed. Sight distance is adequate for the speed of the roadway.

6. ***Safety Issues.*** The TAL provided crash information for a five-year period. A total of 55 crashes were reported at the intersection of Molalla Avenue and Beavercreek Road. This is not an unusual number for a major signalized intersection. Based on the constraints of the reporting system, it was not possible to identify whether any of the crashes could be associated with either of the site driveways.

   A mitigation measure to improve safety recommended by the applicant's engineer is the removal of five existing, angled parking spaces from the parking lot nearest Molalla Avenue at the north site access. Removal of these spaces will lessen the potential for traffic conflicts within the parking lot and near the north site driveway at Molalla Avenue. Removal of these spaces is a highly desirable feature of the proposal. I concur with the recommendation.

7. ***Consistency with the Transportation System Plan (TSP).*** The frontage appears consistent with city specification and the Transportation System Plan.

Conclusion and Recommendations

I find that the TAL meets city requirements and provides an adequate basis upon which impacts of the parking lot expansion can be assessed. The parking lot expansion is predicted to cause little if any increase in traffic.

The removal of the five existing, angled parking spaces in the lot near the north access is a desirable change because it lessens the potential for traffic conflicts within the parking lot that could spill back onto Molalla Avenue. This change is highly desirable

and more than makes up for any increase in traffic that could potentially result from the increased capacity of the parking lot.

I recommend that the removal of the five existing, angled parking spaces nearest the north access be made a condition of the development application. I do not recommend any other conditions be placed on the development for transportation-related issues associated.

If you have any questions or need any further information concerning this review, please contact me at replinger-associates@comcast.net.

Sincerely,

John Replinger, PE
Principal

Oregon City\2018\SP18-119

From: Gary & Marilyn Fergus
To: Kelly Reid
Subject: Re: Land Use Transmittal for proposed parking lot expansion at 1680 Molalla Ave
Date: Friday, August 2, 2019 8:11:02 AM

This is a good idea. 15 years ago I was a hospice volunteer there and they never had enough parking spaces even then.
Marilyn Fergus (Amy Willhite's mom)
Oregon City resident

On Thu, Aug 1, 2019 at 12:46 PM Kelly Reid <kreid@orcity.org> wrote:

> Good Afternoon,
>
> This is an electronic land use transmittal for a Parking Adjustment to exceed the maximum number of permitted off-street parking spaces, along with a parking lot expansion and a variance to allow new parking spaces in front of the existing building . See full application materials at the link below.
>
> This application material is referred to you for your information, study and official comments.
>
> COMMENTS DUE BY: August 16, 2019 to be included in staff report
>
> HEARING DATE: **August 26, 2019**
>
> HEARING BODY: __Staff Review; _**XX**__PC; ___HRB; _____CC
>
> FILE # & TYPE: GLUA-18-00031: General Land Use Application; PARK-18-00001 Parking Adjustment; SP-18-00119 Site Plan and Design Review with VAR-18-00002 Type III Planning Commission Variance
>
> PLANNER: Kelly Reid, Planner
>
> REQUEST: The applicant has proposed a Parking Adjustment to exceed the maximum number of permitted off-street parking spaces, along with a parking lot expansion and a variance to allow new parking spaces in front of the existing building.
>
> APPLICANT: Trisha Clark, Emerio Design 6455 SW Fallbrook Pl. #100 Beaverton, Oregon 97008
>
> OWNER: Sierra Vista Property Partnership
>
> 4560 SE International Way Suite 100.
>
> Milwaukie, OR 97222
>
> LOCATION: 1680 Molalla Avenue, Oregon City, OR 97045
>
> Clackamas County Map 3-2E-05C, Tax Lot 00301
>
> PROJECT WEBSITE: https://www.orcity.org/planning/project/glua-18-00031

Thank you,

Kelly Reid, AICP, Planner

Oregon City Planning Division

698 Warner Parrott Road

Oregon City, OR 97045

(503) 496-1540

kreid@orcity.org

Website: www.orcity.org | Recorder Page

City of Oregon City

625 Center Street
Oregon City, OR 97045
503-657-0891

Staff Report

File Number: PC 19-083

Agenda Date: 8/26/2019

Status: Agenda Ready

To: Planning Commission

Agenda #: 3b.

From: Christina Robertson-Gardiner

File Type: Planning Item

SUBJECT:
LEG 19-00003 - Beavercreek Road Concept Plan- Code and Zoning Amendments- (Process Moving Forward, Topics of Future Meetings)

RECOMMENDED ACTION (Motion):
Continuance of file LEG 19-00003 to the September 9, 2019 Planning Commission Hearing.

BACKGROUND:
On August 12, 2019, the Planning Commission listened to staff's presentation, opened the record, and heard public testimony.

On August 13, 2019, staff presented to the City Commission an update on Beavercreek Road design based on a traffic study performed by DKS Associates. The study found that the existing adopted road configuration with roundabouts and a three land road section meet the traffic requirements for the proposed rezoned parcels within the Concept plan boundary. However, staff heard from the public and elected offices during the spring of 2019 that there was some concern over the adopted configuration. Staff provided an overview of the report and requested direction on how to approach the road configuration moving forward. The City Commission was not comfortable moving forward with the adopted design and requested additional information about roundabouts and three and five-lane cross-sections. Additional public outreach will be conducted to hear from property owners, neighbors, and others interested in the Concept Plan.

As the proposal for LEG 19-0003 is rather large and complex, staff has broken the project into a series of topics to be reviewed in detail prior to asking for approval of the project as a whole. The August 26, 2019 meeting will consist of a discussion of the calendar, future meeting topics, and tracking matrices. No specific topics will be discussed at the meeting, though public comment will be taken as needed.

Tentative Schedule: The dates and topics may change as the process moves forward.

August 26, 2019**:** Introduce Tracking Matrices, an Overview of 8.13.19 City Commission Work Session, Identify Future Topics /Calendar
September 9, 2019**:** Beavercreek Zones, Home Occupation
September 23, 2019**:** Master Planning Requirement, Upland Habitat, Geologic Hazards
October 14, 2019**:** Parks, Renaming Concept Plan

October 28, 2019**:** Transportation (3 questions -roadway width, roundabout, Holly Lane)
November 4, 2019**:** Planning Commission Recommendation (Note: special meeting)
November 25, 2019**:** Tentative Approval of Planning Commission Recommendation Findings

Other Meetings
October 2019 - City Commission Beavercreek Road Design Work Session- Date TBD
September 2019 - Additional Public Outreach on Transportation Questions

BUDGET IMPACT:
Amount:
FY(s):
Funding Source:

Date	Issue / Comment / Concern	Staff Comment	Planning Commission Recommendation	Code / Policy	Has this been Addressed? How?
7.3.19 Written Comment to Planning Commission Wendy Black	Concerned that the area where home is located was in a protected natural area according to the first map they were sent, but now seems to be included in the industrial area. Concern about project impact to farm use.				
7.12.19 Written Comment to Planning Commission Clackamas River Water (CRW)	Territory that is annexed to the City must be withdrawn from CRW and served by Oregon City services to the extent practicable. CRW assumes that future development will, in large part, be guided and coordinated consistent with the concepts provided in the Joint Engineering Study, June 11, 2018, by Murraysmith.	This is consistent with Staff's understanding. New development within the concept plana area (except for the previously approved Villages of Beavercreek) will utilize city water.			
7.15.19 Written Comment to Planning Commission Wes Rogers Oregon City School District	Assuming that the BRCP is developed in stages over the next 5-10 years, the District currently believes that it has the current capacity and/or will be able to have time to add capacity to meet the long-term enrollment generated by the Beavercreek Road Concept Plan development.	The school property to the south of the concept plana area will have vehicular access to the Concept Plan and can connect to local streets when it is constructed.			

Date	Issue / Comment / Concern	Staff Comment	Planning Commission Recommendation	Code / Policy	Has this been Addressed? How?
8.12.19 Testimony to Planning Commission Paul Edgar Entered into the record- Title 4 Map	Request that the Planning Commission work with Metro to revise the Title 4 Industrial maps to remove a parcel owned by Terry Emmert to allow construction of housing for homeless veterans onsite.	https://www.oregonmetro.gov/industrial-and-employment-land Portions of the CI area in the BRCP are identified as Title 4 Industrial areas. Any change to the title 4 Map must be adopted by Metro and would need to be completed before the Code amendments are adopted by the City to remain consistent with Title 4.			
8.12.19 Testimony to Planning Commission Christine Kosinski	Concerned about development in the Beavercreek concept Plan areas affecting homes on Holly Lane as Holly lane is in a historic landslide area. Does not support any connection of the concept plan area to Holly Lane-	Geologic Hazard Review within the city is subject to OCMC 17.44 Geologic Hazard Review. Areas near the Thimble Creek Conservation Area are subject to the Geologic Hazard code at time of Development. See additional response in the Planning Commission comments/Issues Matrix			

From:	Wendy Black
To:	Christina Robertson-Gardiner
Subject:	Beavercreek Road Concept Plan - Loder Rd Residents
Date:	Wednesday, July 3, 2019 2:39:07 PM

Hello,

I live on Loder Road in the area that now seems to be planned for a Campus Industrial Zoning. Currently we are Rural Residential Farm/Forest 5 and we have a small farm that does include animals. This is significant source of food for our family. We also live on the ridge above the creek. I am concerned how the rezoning would impact our land use. Are you able to provide me further information? I've read through much of the information on the website. I am very concerned that the area where our home is was in a protected natural area according to the first map we were sent, but now seems to be included in the industrial area. I had trouble telling from all the other maps and information what was happening.

Thank you for your assistance in this matter. Kind regards,
Wendy Black
15060 S Loder Rd, Oregon City, OR 97045

Clackamas River Water

MEMO

To: Laura Terway, Community Development Director, Oregon City

cc: files

From: Joseph D. Eskew, Engineering Manager

Date: 7/12/2019

RE: *Beavercreek Road Concept Plan – CRW Comments*

Thank you for this opportunity to provide comments regarding the Beavercreek Road Concept Plan and how Clackamas River Water (CRW) will be affected.

The area of interest (the Area) is located east of Beavercreek Rd, south of Thayer Rd and north of Henrici Rd. The area lies wholly within the Urban Growth Boundary (UGB) and partially within City limits.

Portions of the Area extend into current CRW jurisdictional territory that is served by CRW. Regarding these portions of the Area, CRW provides the following summary comments:

1. Existing CRW customers within the UGB and/or City limits, will remain customers until such time that the City has infrastructure and can provide water service.
2. CRW owns service mains that traverse through the Area to territory outside the UGB. Water mains must remain in service to provide water to customers outside the UGB. CRW is open to discussions regarding alternatives for maintaining service to customers outside the UGB.
3. Territory that is annexed to the City must be withdrawn from CRW and served by Oregon City services to the extent practicable.
4. An Intergovernmental Agreement between CRW and Oregon City, dated October, 13 2016 provides a mechanism to serve CRW water within Oregon City limits, on a limited basis, through a master meter for water sales to Oregon City. The IGA is focused specifically to provide interim water service for the proposed "Villages at Beavercreek" development. This agreement is in force and will be honored.
5. CRW lacks required storage and infrastructure to increase the amount of water sales for additional development over the flow rate designated in the IGA.
6. CRW assumes that future development will, in large part, be guided and coordinated consistent with the concepts provided in the Joint Engineering Study, June 11, 2018, by Murraysmith.

Oregon City School District No. 62

Learning to be our Best

PO Box 2110 (1417 12th St.), Oregon City, Oregon 97045-5010

July 15, 2019

Community Development Department
City of Oregon City
698 Warner Parrott Road
Oregon City, OR 97045

RE: Beavercreek Road Concept Plan - BRCP

The District has been asked to provide comments concerning the BRCP and the current proposal for zoning designations and code amendments. Comments are to address the ability of Oregon City School District to adequately provide public educational services to the area. Current impacted school enrollment areas are Gaffney Lane and Beavercreek Elementary Schools, Ogden Middle School and Oregon City High School.

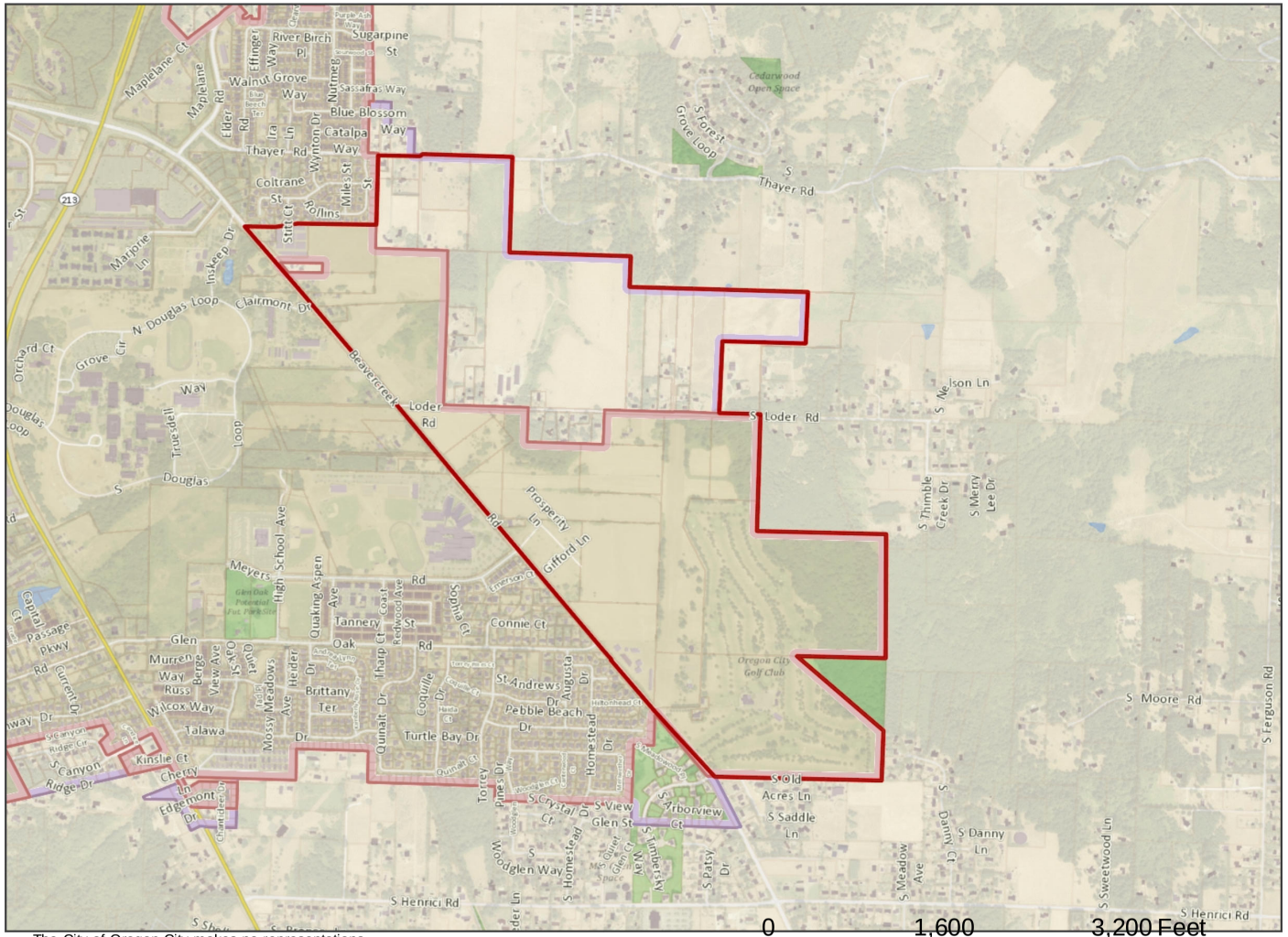
The District has limited short-term capacity available at both Gaffney Lane and Beavercreek Elementary Schools, capacity available at Ogden Middle School and capacity at our three high schools. Recent residential developments in the District have yielded significantly less than one student per household across all grade levels. The District currently is in design and construction to replace/expand and update middle schools and add safety and security features to all District schools. Current enrollment projections show a gradually increasing elementary enrollment, a middle school enrollment that decreases in the short term and then gradually increases and high school enrollment that slightly decreases. Assuming that the BRCP is developed in stages over the next 5-10 years, the District currently believes that it has the current capacity and/or will be able to have time to add capacity to meet the long-term enrollment generated by the Beavercreek Road Concept Plan development.

Sincerely,

Wes Rogers
Bond Program Manager
503-785-8531, wes.rogers@orecity.k12.or.us

Date	Question/Comment	Topic	Staff Response / Recommendation	Planning Commission Action/Recommendation	Has this been addressed? How?
8.12.19 Mike Mitchell	Provide more background on the decision to have 20 setback at the north boundary of the concept plan areas and 40 setback at the south boundary	Zones	Will be addressed at the September 9, 2019 Planning Commission Meeting.		
8.12.19 Mike Mitchell	Concern that the definition of warehousing is not specific enough to allow ancillary use by permitted uses	Zones	Will be addressed at the September 9, 2019 Planning Commission Meeting.		
8.12.19 Mike Mitchell	Concern about categorizing shared and separated bike lines with at grade bike lanes in terms of safety and likeliness of being utilized	Transportation	Additional information about will be shared in October and through the additional public outreach occurring in September 2019. See calendar in Commission report for details		
8.12 19 Patti Gage	Provide additional background on the Geologic Hazard code- how does it affect development in the BRCP area and Holly Lane area?	Hazards/Natural Resources	Geologic Hazard Review within the city is subject to OCMC 17.44 Geologic Hazard Review. Areas near the Thimble Creek Conservation Area are subject to the Geologic Hazard code at time of Development Will be further addressed at the September 23, 2019 Planning Commission Meeting.		

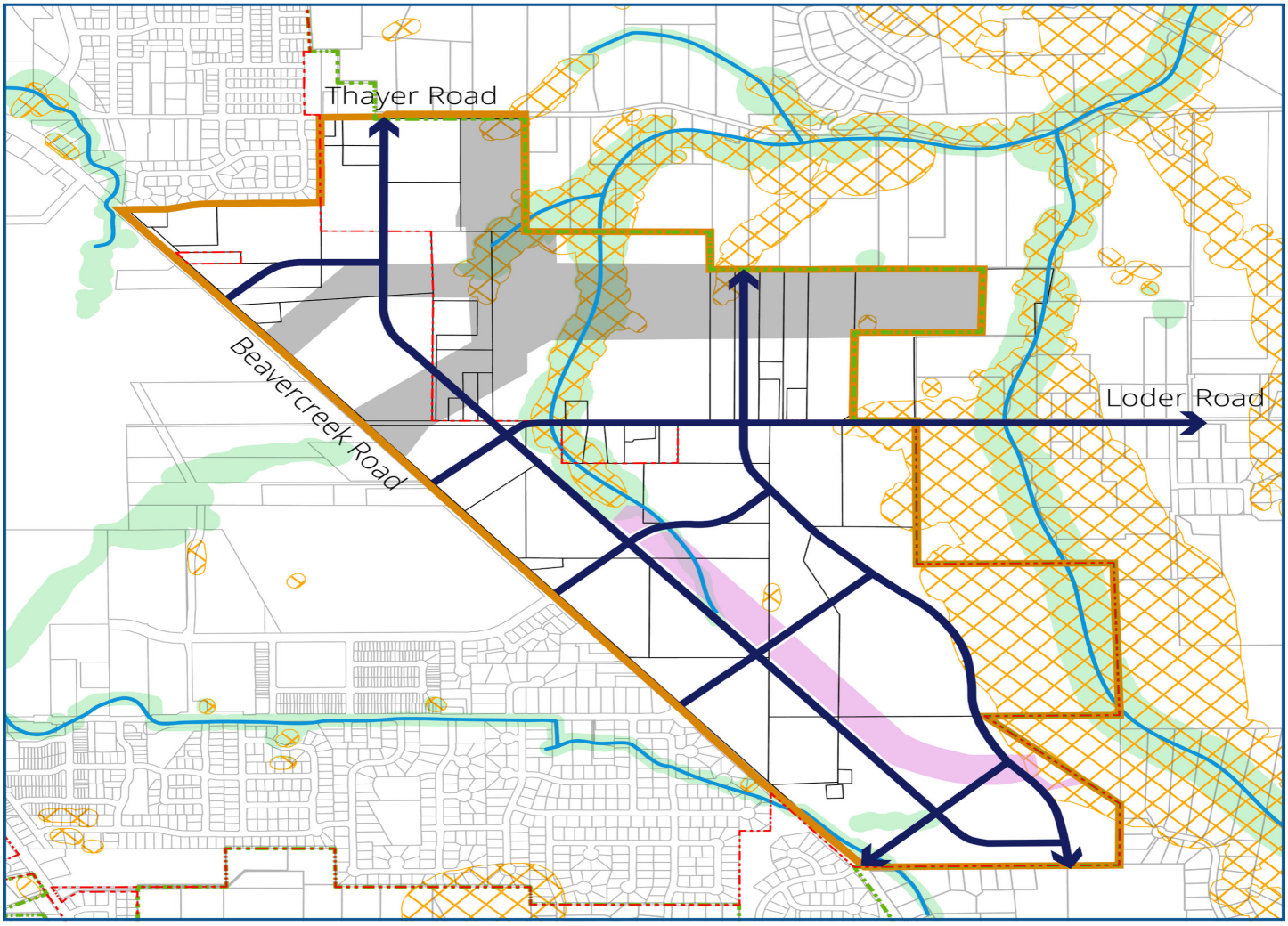
Date	Question/Comment	Topic	Staff Response / Recommendation	Planning Commission Action/Recommendation	Has this been addressed? How?
8.12.19 Dirk Schlagenhaufer	Provide additional information on the pros and cons of roundabouts and crash statistics for the corridor.	Transportation	Additional information about intersection control measures (Roundabouts and signals) will be shared in October and through the additional public outreach occurring in September 2019. See calendar in Commission report for details		
8.12.19 Dirk Schlagenhaufer	Please expand on Comprehensive Plan policy 9.8.7 as it relates to bicycles	Transportation	*Policy 9.8.7* *Assess methods to integrate the pedestrian, bicycle and elevator transportation modes into the mass transit system.* Additional information about intersection control measures (Roundabouts and signals) will be shared in October and through the additional public outreach occurring in September 2019. See calendar in Commission report for details		
8.12.19 Tom Geil	Provide more information on the creation of the Beavercreek Blue Ribbon Committee	Other/Economic Development	Lori Bell, Economic Development Coordinator will provide a brief email explaining purposed of organization, which will be attached to public comments.		
8.12.19 Tom Geil Vern Johnson	If the transportation study horizon is only 20-205 years how do we know are sizing Beavercreek Road correctly?	Transportation	Additional information about traffic studies and planning for capacity will be shared in October and through the additional public outreach occurring in September 2019. See calendar in Commission report for details		



The City of Oregon City makes no representations, express or implied, as to the accuracy, completeness and timeliness of the information displayed. This map is not suitable for legal, engineering, surveying or navigation purposes. Notification of any errors is appreciated.

Map created 6/21/2019

City of Oregon City
PO Box 3040
625 Center St
Oregon City
OR 97045
(503) 657-0891
www.orcity.org



0' 1,200' 2,400'

Legend

Natural Resources Overlay District (NROD)

Geologic Hazard Overlay District (GHOD)

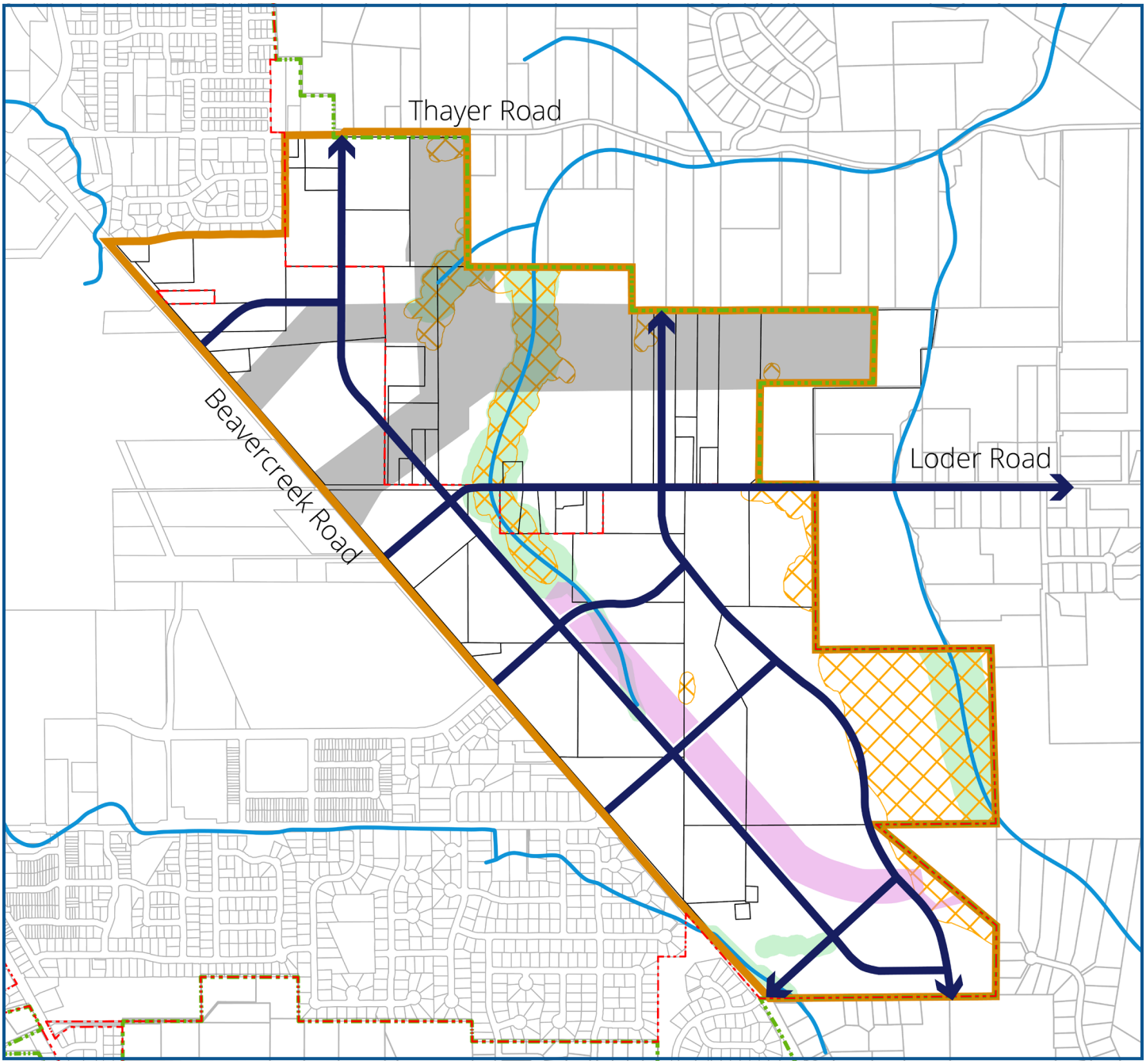
BRCP Boundary

Urban Growth Boundary

City Limits

Beavercreek Road Concept Plan

Development Constraints



Legend

- Natural Resources Overlay District (NROD)
- Geologic Hazard Overlay District (GHOD)
- South-Central Open Space Network
- Powerline Corridor

N

0′ 1,200′ 2,400′

- BRCP Boundary
- Urban Growth Boundary
- City Limits
- Conceptual Road Network
- Streams

Meeting #2 - April 9, 2019

MEMO

Date: June 26, 2019

To: Laura Terway & Christina Robertson-Gardiner, City of Oregon City

CC: Steve Faust, 3J Consulting

From: Elizabeth Decker, JET Planning

Subject: Beavercreek Road Concept Plan Map and Code Implementation Project

---

I. PROJECT DESCRIPTION AND BACKGROUND

I.a. CONCEPT PLAN SUMMARY

The Beavercreek Road Concept Plan (BRCP) establishes the goal of creating a complete and sustainable community in southeast Oregon City within a 453-acre district along Beavercreek Road. The district is intended to provide for a mix of uses including an employment campus north of Loder Road, mixed-use districts along Beavercreek Road, and two mixed-use neighborhoods woven together by open space, trails, a network of green streets, and sustainable development practices. District development will help to provide 1000 to 1,600 diverse housing options and to realize the City's economic development goals, including creation of up to 5,000 family-wage jobs. The five subdistricts that support these development goals include:

- ***North Employment Campus:*** The largest subdistrict, located north of Loder Road and is intended for tech flex and campus industrial uses.
- ***Mixed Employment Village:*** Located along Beavercreek Road between Meyers Road and Glen Oak Road, and intended for mixed-use, 3-5 story building scale, active street life.
- ***Main Street:*** A node located Beavercreek Road and Glen Oak Road, intended for mixed-use, local shops and services.
- ***West Mixed-Use Neighborhood:*** Located along Beavercreek Road south of Glen Oak Road and the Main Street subdistrict, and intended for medium to high density housing and limited community uses.
- ***East Mixed-Use Neighborhood:*** Located in the southeast end of concept plan area, and is intended for low-density residential and green space throughout.

- ***Parks, Open Spaces and Resource Areas:*** Includes a connected system of parks, open spaces and natural areas that link together and link to the environmentally sensitive areas throughout the district, including the undevelopable portion of the powerline overlay.

The Beavercreek Road Concept Plan was initially adopted in 2008 and re-adopted in 2016, following legal and legislative findings that affirmed the plan's consistency with Metro regional employment goals. (See File No. LE-15-0003.) While approximately half of the district has been annexed to the City, mapping and zoning regulations need to be developed and applied for the annexed areas and the remainder of the district to fully implement the BRCP.

I.b. IMPLEMENTATION PROJECT SUMMARY

Oregon City aims to further implementation of the Beavercreek Road Concept Plan (BRCP) through comprehensive plan designation and zone mapping, and development code amendments. The specific tasks for this project will be to develop comprehensive plan map and zoning map designations to implement the Beavercreek Road Concept Plan map, and supporting development code regulations for each implementing zone. The existing Concept Plan map was the guide for mapping implementation. Existing city zoning, bolstered by recent Amendments to the Oregon City Municipal Code (including the Equitable Housing Project recommendations) code amendments, generally lines up with the desired land use concepts within the plan and will facilitate implementation with minor amendments. Additional plan goals beyond land use implementation are outside the scope of this project, including infrastructure, transportation and economic development measures that have already been completed or planned for the concept plan area. Additional items will be pursued separately from this land use implementation project.

I.c. PROJECT PUBLIC ENGAGEMENT

The BRCP implementation project engaged a range of stakeholders in multiple venues and formats over eight months, with each successive round of engagement used to inform project refinements in subsequent phases.

The first round of engagement consisted of four stakeholder interviews with property owners, economic development representatives, and local educational institutions to understand current conditions and priorities for the implementation project. This initial round also included three presentations to the following community groups to update them on the status of the BRCP concept plan and hear their priorities for the implementation process:

- Caulfield Neighborhood Association- January 22, 2019

- The Hamlet of Beavercreek- January 23, 2019
- Beavercreek Blue Ribbon Committee- January 17, 2019

Three public meetings were held at the Oregon City High School, near the concept plan area, and at City Hall during the course of the project to provide information and discussion opportunities on the evolving maps and code amendments:

- Tuesday, January 29, 2019- Oregon City High School Library- 7:00-8:30 PM
- Tuesday, April 9, 2019- Oregon City High School Library- 7:00-8:30 PM
- Monday, June 10, 2019- City Hall Commission Chambers - 5:00-7:00 PM

For all meetings, materials were also available online including comment forms to allow community members to participate virtually if they were not able to attend the meetings in person.

Additional presentations were held at the following City meetings to detail the implementation project elements:

- Citizen Involvement Committee- January 7, 2019
- Transportation Advisory Committee- March 19, 2019

The proposed map and code amendments were discussed at the two work sessions this spring:

- Planning Commission Work Session- May 13, 2019
- City Commission Work Session- June 11, 2019

Throughout the project, ongoing methods used to engage citizens in the process have included:

- Project website with regular updates (https://www.orcity.org/Beavercreekconceptplan)
- Email Updates announcing upcoming meetings and events
- Mailing List
- Public comment tracker, compiling feedback from all engagements with responses from staff, updated throughout the project
- Online comment forms
- Naming survey for renaming the concept plan area
- Notice board posted within the concept plan area

The following meetings are anticipated as of the date of this report as part of the adoption process.

- 1st Planning Commission Hearing: August 12, 2019- 7:00 PM
- City Commission Work Session (Beavercreek Road Street Design): August 13, 2019
- Additional Planning Commission and City Commission public hearings and work sessions to be scheduled.

All meetings will be properly noticed and advertised through the project's mailing list and website.

II. PROPOSED AMENDMENTS

II.a. AMENDMENT SUMMARY

The implementation project includes map and text amendments consistent with BRCP including:

1. *Comprehensive plan text amendments:* Proposed clarification in the Parks Master Plan (ancillary document to the Comprehensive Plan) as well as amendments to the Transportation System Plan (ancillary document to the Comprehensive Plan) as needed.
2. *Comprehensive plan map amendments:* Proposed amendments to the comprehensive plan map implement the five subdistricts identified in the BRCP consistent with the concept plan maps throughout the concept plan area.
3. *Zoning map amendments:* Proposed amendments to the zoning map implement the five subdistricts consistent with the concept plan and comprehensive plan designations for properties within the concept plan area that have been annexed into the city limits. Zoning for properties within the Concept Plan boundary but not annexed into the City will be applied at the time of annexation, consistent with the adopted comprehensive plan map.
4. *Zoning text amendments:* Code amendments to the Oregon City Municipal Code include geographically specific provisions to supplement the base zoning district provisions to fully implement the concept plan goals for each subdistrict. Limited amendments to subdivision and site plan review standards are also proposed to ensure concept plan standards are implemented at the time of development.

The BRCP subdistricts are proposed to be implemented with existing city comprehensive plan designations and zoning districts for proposed maps, with proposed code amendments building on existing district standards.

Subdistrict	*Comprehensive plan designation*	*Zone*
North Employment Campus	Industrial (I)	Campus Industrial (CI)
Mixed Employment Village	Mixed-Use Corridor (MUC)	Mixed-Use Corridor (MUC-2)
Main Street	Mixed-Use Corridor (MUC)	Neighborhood Commercial (NC)
West Mixed-Use Neighborhood	High-Density Residential (HDR)	High-Density Residential (R-2)
East Mixed-Use Neighborhood	Medium-Density Residential (MDR)	Medium-Density Residential (R-5)
Environmentally Sensitive Restoration Area		Natural Resources Overlay District (NROD) Geological Hazard Overlay District (GHOD)

II.b. SUMMARY OF ZONING TEXT AMENDMENTS

The proposed code amendments specific to each subdistrict are described below, and supplement rather than supplant the base zone standards.

OCMC 16.08, Land Divisions – Process and Standards

- Proposed code amendments include additional public park requirements or fee-in-lieu option for certain properties to ensure land for the South Central Open Space Network is reserved and dedicated to the city at the time of residential subdivisions. This is expected to largely apply to development in the R-5 district.

OCMC 17.10, R-5 Medium Density Residential District (East Mixed-Use Neighborhood subdistrict)

- No changes are proposed to the mix of uses or dimensional standards in the zone beyond those proposed in the Amendments to the Oregon City Municipal Code (including the Equitable Housing Project recommendations).

- Standards for the Low-Impact Conservation Area implement the plan goals for the area upslope of Thimble Creek, on the eastern edge of the Beavercreek Road district. The proposed standards limit development to two units per acre, require open space preservation and restoration, and require view corridors to preserve views.
- A 40-foot perimeter buffer is proposed along the southern edge of the district including landscaping, setbacks and fencing, to manage the transition to lower-density residential development outside City limits along Old Acres Lane to the south.

OCMC 17.12, R-2 High Density Residential District (West Mixed-Use Neighborhood subdistrict)

- Allows additional uses consistent with the Concept Plan include live/work dwellings and limited commercial/mixed-use spaces.
- Provides up to a 20% density bonus for development incorporating sustainability features.
- Additional changes in Site Plan and Design Review standards to add requirement for additional public park dedication or fee-in-lieu, consistent with requirement for new subdivisions.

OCMC 17.24, MC Neighborhood Commercial District (Main Street subdistrict)

- Limits uses to a 10,000 SF building footprint to encourage pedestrian-scale, main street businesses. Limits residential uses to 50% of the project floor area, and prohibits ground-floor residential uses within 150 feet of Glen Oak Road (which will be the "main street.") Adds a new use category for artisan and specialty goods production to allow limited manufacturing type uses.
- Increase dimensional standards to match scale proposed in the Concept Plan, including a five-story height limit and 0.5 FAR minimum.
- Improves building presence and interaction along the street by requiring parking to be located behind building facades.

OCMC 17.29, MUC Mixed-Use Corridor District (Mixed Employment Village subdistrict)

- Light industrial uses are permitted to implement the employment aspect of the vision for this subdistrict. Retail and service uses, including food service, are limited to 20% of a site to maintain the focus on employment uses generating family-wage jobs. Residential uses are limited to upper stories only.

- One parcel with an in-progress residential development is permitted outright, to avoid creating a nonconforming use.
- An additional dimensional standard implements a minimum 0.35 FAR for new development to ensure efficient use of land.

OCMC 17.31, CI Campus Industrial District (North Employment Campus subdistrict)

- Retail and professional service uses are limited consistent with Metro Title 4 requirements to preserve land for industrial uses. Offices are permitted consistent with uses outlined in the Concept Plan, whereas distribution and warehouse uses are prohibited because they create relatively few jobs per acre inconsistent with the plan goals.
- Several parcels with existing single-family residential development are permitted outright, to avoid creating nonconforming uses. (These parcels are outside of Title 4 lands, so there is no conflict with employment requirements.)
- Additional standards require landscaping, berms and fences within the required 25-foot transition area between industrial and residential uses.
- Outdoor storage is limited to a maximum of 25% of the developable area to avoid inefficient use of land that does not support employment plan goals.
- A minimum 30-foot open space and trail corridor is required along the powerline corridor. Additional parks, trails, urban agriculture and community garden uses are permitted consistent with the plan goals for uses within the powerline easement.
- Sustainable development features are required for all development to implement the plan's sustainability goals.

OCMC 17.44, US – Geologic Hazards and OCMC 17.49 – Natural Resources Overlay District

- No changes are proposed to the geologic hazard or natural Resources Overlay District standards for this district; resource areas within the concept plan area will be protected consistent with existing standards.

OCMC 17.62, Site Plan and Design Review

- Proposed code amendments include additional public park requirements or fee-in-lieu option to ensure land for the South Central Open Space Network is reserved and dedicated to the city at the time of residential subdivisions.

This is intended to apply to any residential development in the R-2 or the mixed-use districts that does not get developed through subdivision.

III. COMPLIANCE

III.a. CHAPTER 17.68 ZONING CHANGES AND AMENDMENTS

17.68.010 Initiation of the amendment.

A text amendment to this title or the comprehensive plan, or an amendment to the zoning map or the comprehensive plan map, may be initiated by:

A. A resolution by the commission;

B. An official proposal by the planning commission;

C. An application to the planning division presented on forms and accompanied by information prescribed by the planning commission.

All requests for amendment or change in this title shall be referred to the planning commission.

Response: This request is for amendments to the zoning map, amendments to the comprehensive plan map, and text amendments to the Oregon City Municipal Code and was initiated by the Planning Division.

17.68.020 Criteria.

The criteria for a zone change are set forth as follows:

A. The proposal shall be consistent with the goals and policies of the comprehensive plan.

Response: Consistency with the Oregon City Comprehensive Plan (OCCP) Goals and Policies follow starting on page 11.

B. That public facilities and services (water, sewer, storm drainage, transportation, schools, police and fire protection) are presently capable of supporting the uses allowed by the zone, or can be made available prior to issuing a certificate of occupancy. Service shall be sufficient to support the range of uses and development allowed by the zone.

Response: The capacity of the respective public facilities and services to support the proposal is addressed below.

Water and Sewer Capacity

Please refer to the attached memorandum from 3J Consulting. The memorandum provides an assessment of the water and sanitary sewer system implications of the map and code amendments proposed with the BRCP implementation project.

Wastewater treatment is provided by the Tri-City Sewer District, which the project contacted for comment.

The 3J memorandum concludes that development of 1,105 dwelling units and 5,734 jobs within the BRCP area have been adequately planned for in infrastructure master plans and sufficient capacity will be available to serve development. The Sanitary Sewer (2014) and Water Distribution (2012) Master Plans were all created subsequent to initial adoption of the Beavercreek Road Concept Plan (2008). Each master plan incorporated the BRCP area into future capital improvement projections and will ensure adequate water and sewer capacity is developed.

South Fork Water Board (SFWB), Oregon City's water provider was contacted for comment.

Schools

The proposal was sent to the Oregon City School District (OCSD) for comment.

Police and Fire Protection

Oregon City Police Department and Clackamas Fire District capacity would not be affected by the proposal, since the proposal does not change existing service areas. They have been contacted for comment.

Wastewater Treatment

Tri-City Sewer District was contacted for comment.

Storm Drainage

This proposal does not change the city's adopted policies and technical documents related to storm water management and erosion control. The Draft 2019 Oregon City Stormwater Master Plan includes the BRCP area, which is part of the Newell Creek Basin, but does not identify any capital improvement projects specifically needed to serve the BRCP district. The Plan states that the eventual layout of the stormwater conveyance systems and management facilities will be crafted through the preliminary and final design process for development projects within the BRCP district.

Transportation

Impacts to the transportation system are addressed under (C) below.

Based on the various analyses provided, public facilities and services are presently capable of supporting the uses allowed by the proposal, or can be made available prior to issuing a certificate of occupancy. **This criterion is met.**

C. The land uses authorized by the proposal are consistent with the existing or planned function, capacity and level of service of the transportation system serving the proposed zoning district.

Response: The impacts of the proposal on the transportation system were reviewed by a transportation consultant, DKS. Please refer to the DLS analysis and memorandum which is attached to this narrative. The memorandum provides an assessment of the transportation implications of the project proposal. The memorandum assesses whether the proposed amendments trigger a finding of significant effect that would require further analysis to determine transportation impacts under OAR 660-12-0060 (Transportation Planning Rule or "TPR").

The memo concludes that the proposed map and code amendments do not result in a significant change in the number of trips resulting from the dwelling units and jobs anticipated within the BRCP district compared to the traffic anticipated and planned for in Oregon City's Transportation System Plan (TSP) adopted in 2013. Therefore, the proposed amendments do not have a significant effect on the transportation system and that the city may adopt findings to that effect when adopting the proposed amendments. **This criterion is met.**

D. Statewide planning goals shall by addressed if the comprehensive plan does not contain specific policies or provisions which control the amendment.

Response: The acknowledged Oregon City Comprehensive Plan (OCCP) addresses all of the applicable Statewide Planning goals unless the Statewide Goal is inapplicable. The relevant sections of the OCCP implemented by this proposal, and the applicable Statewide Goals, is indicated below.

Statewide Planning Goal	**OCCP Section / Goal(s) Implemented by this Proposal**
1: Citizen Involvement	1. Citizen Involvement / Goals 1.2, 1.4
2: Land Use Planning	2. Land Use Planning / Goals 2.1, 2.3, 2.4, 2.5, 2.6, 2.7
3: Agricultural Lands	3. Not applicable within UGB
4: Forest Lands	4. Not applicable within UGB
5: Natural Resources, Scenic and Historic Areas, and Open Spaces	5. Open Spaces, Scenic and Historic Areas, and Natural Resources / Goals 5.1, 5.4
6: Air, Water and Land Resources Quality	6. Quality of Air, Water, and Land Resources / Goals 6.1, 6.2
7: Areas Subject to Natural Hazards	7. Natural Hazards / Goal 7.1
8: Recreation Needs	8. Parks and Recreation / Goal 8.1,

9: Economic Development	9. Economic Development / Goals 9.1, 9.3, 9.5, 9.7, 9.8
10: Housing	10. Housing / Goals 10.1, 10.2
11: Public Facilities and Services.	11. Public Facilities / Goals 11.1, 11.6, 11.7
12: Transportation	12: Transportation / Goal 12.1
13: Energy Conservation	13. Energy Conservation / Goal 13.1
14: Urbanization	14. Urbanization / Goal 14.3
15: Willamette River Greenway	Not affected by this proposal.
16: Estuarine Resources	Not applicable.
17: Coastal Shorelands	Not applicable.
18: Beaches and Dunes	Not applicable.
19: Ocean Resources	Not applicable.

Detailed responses to the OCCP goals and policies are provided in Section III.b below.

III.b. OREGON CITY COMPREHENSIVE PLAN GOALS AND POLICIES

Goal 1.2 Community and Comprehensive Planning

Ensure that citizens, neighborhood groups, and affected property owners are involved in all phases of the comprehensive planning program.

Policy 1.2.1

Encourage citizens to participate in appropriate government functions and land-use planning.

Goal 1.4 Community Involvement

Provide complete information for individuals, groups, and communities to participate in public policy planning and implementation of policies.

Policy 1.4.1

Notify citizens about community involvement opportunities when they occur.

Response: **The proposal is consistent with these Goals and Policies**. The project provided numerous opportunities for citizen involvement, including engagement with the Citizen Involvement Committee, the Caufield Neighborhood Association, property owners, and other stakeholders through multiple avenues throughout the eight-month project planning process with multiple notification and participation options provided. See Section I.c for full summary of citizen involvement efforts.

2.1 Efficient Use of Land

Ensure that property planned for residential, commercial, office, and industrial uses is used efficiently and that land is developed following principles of sustainable development.

Response: The proposal maps and supplements existing zoning district standards for the R-5, R-2, NC, MUC-II, and CI zones that have been found to support efficient and sustainable development. The BRCP envisions the area developed with vibrant, walkable, amenity rich neighborhoods with active community centers, as mapped and implemented by this proposal. The proposed code amendments further support efficient land use by providing residential density bonuses, FAR minimums for mixed-use development, and requiring sustainable design features for industrial development. **The proposal is consistent with this Goal.**

Policy 2.1.1

Create incentives for new development to use land more efficiently, such as by having minimum floor area ratios and maximums for parking and setbacks.

Response: The proposed code amendments create additional incentives for efficient land use in the BRCP district beyond the existing code standards, including higher minimum FARs for development in the two mixed-use zones and reduced setbacks and landscaping area for the NC zone applied to the Main Street subdistrict. The OCMC already includes parking maximums in OCMC 17.52.020. **The proposal is consistent with this Policy.**

Policy 2.1.2

Encourage the vertical and horizontal mixing of different land-use types in selected areas of the city where compatible uses can be designed to reduce the overall need for parking, create vibrant urban areas, reduce reliance on private automobiles, create more business opportunities and achieve better places to live.

Response: The proposed map amendments apply two existing mixed-use zones with the BRCP area, the MUC-II and NC zones. In addition to the mix of office, commercial and residential uses allowed in the base zones, the proposed code amendments expand the mix of uses including allowing light manufacturing uses in the MUC-II zone. The proposed code amendments limit the scale and percentages of different categories of uses, including limiting residential uses to upper stories or ground-floor uses set back a minimum distance from the main roadways, to provide for a greater mix of uses. The proposed code amendments also introduce opportunities for small-scale commercial uses in the R-2 zone for additional opportunities for mixed-use development. **The proposal is consistent with this Policy.**

Goal 2.3 Corridors

Focus transit-oriented, higher intensity, mixed-use development along selected transit corridors.

Response: The proposed map amendments apply two existing mixed-use zones with the BRCP area, the MUC-II and NC zones, along Beavercreek Road, which has potential to be a future transit corridor as development increases potential ridership numbers. The higher-intensity residential development zoned R-2 is also located along Beavercreek Road, compared to medium-density residential areas zoned R-5 located further east away from major roads. In addition, the site is near the Clackamas Community College which has a transit center for Tri-Met. **The proposal is consistent with this Goal.**

Policy 2.4.2

Strive to establish facilities and land uses in every neighborhood that help give vibrancy, a sense of place, and a feeling of uniqueness; such as activity centers and points of interest.

Response: The essence of the BRCP is to establish a district with interconnected, vibrant neighborhoods. The proposed map amendments support a mix of uses throughout the district, included a district focal point in the Main Street subdistrict zoned NC that will serve as the hub for the district's neighborhoods. The proposed code amendments also support development of smaller-scale activity centers throughout the district, such as permitting small-scale commercial uses with the East Mixed-Use Neighborhood zoned R-2 and supporting creation of the South-Central Open Space Network through required parkland dedications. **The proposal is consistent with this Policy.**

Policy 2.4.3

Promote connectivity between neighborhoods and neighborhood commercial centers through a variety of transportation modes.

Response: The BRCP plans for multimodal transportation networks throughout the district, as supported by the proposed map and code amendments. The proposed code amendments support creation of the South-Central Open Space Network through required parkland dedications, which will form a linear park and multimodal trail connecting multiple subdistricts. **The proposal is consistent with this Policy.**

Goal 2.5 Retail and Neighborhood Commercial

Encourage the provision of appropriately scaled services to neighborhoods.

Response: The map amendments, consistent with the BRCP map, provide for a Main Street subdistrict zoned NC in close proximity to the residential East and West Mixed-Use Neighborhoods. In addition, the proposed code amendments add opportunities to integrate small-scale commercial uses in the West Mixed-Use Neighborhood zoned R-2. **The proposal is consistent with this Goal.**

Policy 2.5.4

Encourage the development of successful commercial areas organized as centers surrounded by higher density housing and office uses, rather than as commercial strips adjacent to low-density housing.

Response: The map amendments, consistent with the BRCP map, provide for a Main Street subdistrict zoned NC in close proximity to the higher-density West Mixed-Use Neighborhood zoned R-2 and the Mixed Employment Village subdistrict zoned MUC-II that will support office uses. There are no commercial strips proposed adjacent to lower-density housing in the East Mixed-Use Neighborhood zoned R-5. **The proposal is consistent with this Policy.**

Policy 2.5.5

Encourage commercial and industrial development that enhances livability of neighborhoods through the design of attractive LEEDTM-certified buildings and environmentally responsible landscaping that uses native vegetation wherever possible, and by ensuring that development is screened and buffered from adjoining residential neighborhoods and access is provided by a variety of transportation modes.

Response: The proposed code amendments include requirements for sustainable design features for industrial development within the North Employment Campus zoned CI; the menu of features includes LEEDTM-certified buildings and use of native vegetation. The proposed code amendments also provide for an enhanced landscaping buffer incorporating berms and fencing between the industrial subdistrict and adjacent residential development in the East Mixed-Use Neighborhood. The BRCP includes plans for a multimodal transportation network that will be built out as development occurs. **The proposal is consistent with this Policy.**

Goal 2.6 Industrial Land Development

Ensure an adequate supply of land for major industrial employers with family-wage jobs.

Response: The map amendments designate 236.1 gross acres, estimated at 132.1 net acres for Industrial designation and Campus Industrial zoning; the North Employment Campus is the largest of all the BRCP subdistricts. All Metro Title 4

land protected for employment use has been designated and zoned CI. The existing CI zone allows a range of uses that support family-wage jobs, such as light manufacturing; the proposed code amendments further protect job generation potential by limiting the amount of site area that can be used for outdoor storage areas and prohibiting distribution and warehouse uses, which typically do not generate significant job opportunities. **The proposal is consistent with this Goal.**

Policy 2.6.2

Ensure that land zoned or planned for industrial use is used for industrial purposes, and that exceptions are allowed only where some other use supports industrial development. New non-industrial uses should especially be restricted in already developed, active industrial sites.

Response: The map amendments ensure that land planned for industrial use is protected for industrial purposes by zoning it CI. The CI zoning code standards limit non-industrial uses, and the proposed code amendments further limit the size of any supporting retail or office to 5,000 SF per establishment or 20,000 per development. Existing residential uses on a handful parcels within the North Employment Campus are permitted outright, rather than rendered nonconforming uses, but no new residential uses are permitted. **The proposal is consistent with this Policy.**

Policy 2.6.3

Protect the city's supply of undeveloped and underdeveloped land zoned for industrial uses by limiting non-industrial community uses, such as schools, parks, and churches on such properties and by limiting larger commercial uses within those areas.

Response: The CI zoning code standards already prohibit schools and churches; parks, trails and urban agriculture uses are proposed as permitted uses in the code amendments for the North Employment Campus subdistrict, intended to apply within the powerline easement areas that would otherwise be undevelopable for industrial use. The proposed code amendments limit the size of any supporting commercial use to 5,000 SF per establishment or 20,000 per development. **The proposal is consistent with this Policy.**

Policy 2.6.4

Protect existing and planned undeveloped and underdeveloped industrial lands from incompatible land uses, and minimize deterrents to desired industrial development.

Response: Much of the North Employment Campus industrial lands are currently undeveloped. The map amendments applying the CI zone will protect these lands from incompatible development through existing CI use standards. The CI zoning

code standards limit non-industrial uses, and the proposed code amendments further limit the size of any supporting retail or office to 5,000 SF per establishment or 20,000 per development. Existing residential uses on a handful parcels within the North Employment Campus are permitted outright, rather than rendered nonconforming uses, but no new residential uses are permitted. The CI zoning code standards also prohibit schools and churches; parks, trails and urban agriculture uses are proposed as permitted uses in the code amendments for the North Employment Campus subdistrict, intended to apply within the powerline easement areas that would otherwise be undevelopable for industrial use. **The proposal is consistent with this Policy.**

Policy 2.6.5

Ensure that land-use patterns create opportunities for citizens to live closer to their workplace.

Response: A central feature of the BRCP is the integration of residential and employment opportunities to create possibilities to live, work and play in the district. The proposed map amendments will create residential and employment districts in close proximity, including two mixed-use districts with both residential and employment opportunities. **The proposal is consistent with this Policy.**

Policy 2.6.6

Identify industrial uses that could partner with Clackamas Community College as training centers and future employers of students graduating from CCC.

Response: CCC was identified as a stakeholder in the implementation project, and was engaged in the map and code development. The proximity of the North Employment Campus and the CCC campus create an exciting opportunity for future industrial developments in the BRCP area that partner with CCC as training centers and future employers. The existing CI use standards permit a wide range of industrial uses, including light manufacturing and research and development, that could accommodate future industrial uses within the BRCP district. **The proposal is consistent with this Policy.**

Policy 2.6.7

Establish priorities to ensure that adequate public facilities are available to support the desired industrial development.

Response: Public facility master planning has been completed for the district, and planned water, sewer, stormwater, and transportation facilities have been shown to support the full 5,734 jobs projected with this implementation project. See response to approval criteria 17.68.020.B and C in Section III.a. All proposed industrial

development will be reviewed through the Site Plan and Design Review process in OCMC 17.62 that includes a criteria for approval for any new development that public facilities are adequate to support the proposal. **The proposal is consistent with this Policy.**

Policy 2.6.8

Require lands east of Clackamas Community College that are designated as Future Urban Holding to be the subject of concept plans, which if approved as an amendment to the Comprehensive Plan, would guide zoning designations. The majority of these lands should be designated in a manner that encourages family-wage jobs in order to generate new jobs and move towards meeting the city's employment goals.

Response: The lands east of CCC have been incorporated into the BRCP and envisioned for industrial development that encourages family-wage jobs. The proposed map amendments, guided by the approved concept plan, designate this area for Industrial designation and Campus Industrial zoning. The existing CI zone allows a range of uses that support family-wage jobs, such as light manufacturing; the proposed code amendments further protect job generation potential by limiting the amount of site area that can be used for outdoor storage areas and prohibiting distribution and warehouse uses, which typically do not generate significant job opportunities. **The proposal is consistent with this Policy.**

Goal 2.7 Oregon City Comprehensive Plan Land-Use Map

Maintain the Oregon City Comprehensive Plan Land-Use Map as the official long-range planning guide for land-use development of the city by type, density and location.

Response: The proposal includes amendments to the official Comprehensive Plan Land-Use Map as part of on-going maintenance to update designations for the BRCP area. **The proposal is consistent with this Goal.**

Policy 2.7.2

Use the following 11 land-use classifications on the Oregon City Comprehensive Plan Land-Use Map to determine the zoning classifications that may be applied to parcels:

- *Low Density Residential (LR)*
- *Medium Density Residential (MR)*
- *High Density Residential (HR)*
- *Commercial (C)*
- *Mixed Use Corridor (MUC)*
- *Mixed Use Employment (MUE)*

- *Mixed Use Downtown (MUD)*
- *Industrial (I)*
- *Public and Quasi-Public (QP)*
- *Parks (P)*
- *Future Urban Holding (FUH)*

Response: The proposed comprehensive plan map amendments apply the Medium Density Residential, High Density Residential, Mixed Use Corridor, and Industrial designations to the BRCP area, with zoning classifications that are consistent with these designations. **The proposal is consistent with this Policy.**

Goal 5.1 Open Space

Establish an open space system that conserves fish and wildlife habitat and provides recreational opportunities, scenic vistas, access to nature and other community benefits.

Response: The BRCP prioritizes an open space network that preserves identified environmental resource areas, parks, trails, and viewpoints, including the South-Central Open Space Network and the Low Impact Conservation Area upslope of Thimble Creek on the eastern edge of the district. The map amendments will include mapping and applying the Natural Resources Overlay District (NROD)—OCMC 17.49 and Geologic Hazards—OCMC 17.44 to habitat areas. The proposed code amendments will create the South-Central Open Space Network through required parkland dedication at the time of development, protect trail corridors throughout the district's open space system by requiring dedication of easements at the time of development, and protect the Low Impact Conservation Area by limiting development to two units per acre and protecting view corridors. **The proposal is consistent with this Goal.**

Policy 5.1.1

Conserve open space along creeks, urban drainage ways, steep hillsides, and throughout Newell Creek Canyon.

Response: The existing Natural Resources Overlay District (NROD) will be applied to all riparian corridors and the Geologic Hazards standards will be applied to all steep hillsides to conserve those areas. **The proposal is consistent with this Policy.**

Goal 5.4 Natural Resources

Identify and seek strategies to conserve and restore Oregon City's natural resources, including air, surface and subsurface water, geologic features, soils, vegetation, and fish and wildlife, in order to sustain quality of life for current and future citizens and visitors, and the long-term viability of the ecological systems.

Response: The proposed amendments do not include any changes to OCMC 17.44, Natural Resources Overlay District, or to OCMC 17.49 – Geologic Hazards. These acknowledged codes are intended to conserve, protect and restore inventoried natural resources within the City's Urban Growth Boundary. **The proposal is consistent with this policy.**

Policy 5.4.16

Protect surfacewater quality by:

- *providing a vegetated corridor to separate protected water features from development*
- *maintaining or reducing stream temperatures with vegetative shading*
- *minimizing erosion and nutrient and pollutant loading into water*
- *providing infiltration and natural water purification by percolation through soil and vegetation*

Response: The proposed amendments do not include any changes to OCMC 17.44, Natural Resources Overlay District, which provides for a vegetated corridor and shading along street corridors, or to the City's recently adopted stormwater and erosion control standards, design manuals or review processes. **The proposal is consistent with this policy.**

Goal 6.1 Air Quality

Promote the conservation, protection and improvement of the quality of the air in Oregon City.

Response: The proposed amendments will not affect any codes or policies that implement Goal 6. The City's overlay districts, such as the Natural Resource Overlay District, Flood Management Overlay, and Geologic Hazards Overlay will apply regardless of the proposed changes. All engineering standards and building code standards for storm drainage, grading, erosion control, water quality facilities will continue to apply to development. Oregon Dept. of Environmental Quality (DEQ) air and water quality permits are required separately for new development. **The proposal is consistent with this Goal.**

Policy 6.1.2

Ensure that development practices comply with or exceed regional, state, and federal standards for air quality.

Response: Oregon Dept. of Environmental Quality (DEQ) air and water quality permits are required separately for new development. Oregon City planning and

engineering staff are included in the coordination of these permits prior to issuance by DEQ. **The proposal is consistent with this Policy.**

Goal 6.2 Water Quality

Control erosion and sedimentation associated with construction and development activities to protect water quality.

Response: Oregon Dept. of Environmental Quality (DEQ) air and water quality permits are required separately for new development. Oregon City planning and engineering staff are included in the coordination of these permits prior to issuance by DEQ. **The proposal is consistent with this Policy.**

Policy 6.2.1

Prevent erosion and restrict the discharge of sediments into surface- and groundwater by requiring erosion prevention measures and sediment control practices.

Response: All engineering standards and building code standards for storm drainage, grading, erosion control, and water quality facilities will continue to apply to development. **The proposal is consistent with this Policy.**

Policy 6.2.2

Where feasible, use open, naturally vegetated drainage ways to reduce stormwater and improve water quality.

Response: All engineering standards and building code standards for storm drainage, grading, erosion control, and water quality facilities will continue to apply to development. **The proposal is consistent with this policy.**

Goal 7.1

Natural Hazards Protect life and reduce property loss from the destruction associated with natural hazards.

Response: Development within the Natural Resources Overlay District and Geologic Hazards Overlay District (which includes sloped and historic landslide areas) is limited by development standards in the Municipal Code to protect the public.

Policy 7.1.1 Limit loss of life and damage to property from natural hazards by regulating or prohibiting development in areas of known or potential hazards.

Response: Development within the Natural Resources Overlay District and Geologic Hazards Overlay District (which includes sloped and historic landslide areas) is limited by development standards in the Municipal Code to protect the public.

8.1 Developing Oregon City's Park and Recreation System

Maintain and enhance the existing park and recreation system while planning for future expansion to meet residential growth.

Response: The BRCP prioritizes a network of parks, trails, and open spaces, including the South-Central Open Space Network. The proposed code amendments will support creation of the South-Central Open Space Network through required parkland dedication at the time of development and protect trail corridors throughout the district's open space system by requiring dedication of easements at the time of development. **The proposal is consistent with this Goal.**

Policy 8.1.1

Provide an active neighborhood park-type facility and community park-type facility within a reasonable distance from residences, as defined by the Oregon City Park and Recreation Master Plan, to residents of Oregon City.

Response: The South-Central Open Space Network will create park facilities within proposed neighborhoods; all residences will be within approximately 1/4 mile of the network, which will include multiple elements including features similar to a neighborhood park-type facility and a multipurpose trail. The proposed code amendments will create the South-Central Open Space Network through required parkland dedication at the time of development. **The proposal is consistent with this Policy.**

Policy 8.1.2

When property adjacent to an existing neighborhood or community park becomes available, consider adding property to the park and developing it to meet the current needs of existing neighborhoods.

Response: There are no existing parks in the BRCP area, however, future park facilities in the South-Central Open Space Network will be expanded over time as the properties in the district are developed. The proposed code amendments will create the South-Central Open Space Network through required parkland dedication at the time of development, and include provisions for dedication of land within the mapped South-Central Open Space Network to allow the facility to expand and maintain connectivity throughout the district. **The proposal is consistent with this Policy.**

Policy 8.1.5

Identify and construct a network of off-street trails throughout the city for walking and jogging.

Response: The BRCP identifies a network of off-street trails including regional trails throughout the district. The proposed code amendments will protect identified trail corridors by requiring dedication of easements at the time of development. **The proposal is consistent with this Goal.**

Policy 8.1.9

Emphasize retaining natural conditions and the natural environment in proposed passive recreation areas.

Response: Passive recreation areas will include open space areas and environmental resource areas. The Natural Resources Overlay District (NROD)—OCMC 17.49 and Geologic Hazards—OCMC 17.44 will be applied to habitat areas which promote retention of natural conditions. In addition, the proposed code amendments include provisions for the Low Impact Conservation Area that require environmental restoration as a condition of any adjacent development. **The proposal is consistent with this Policy.**

Policy 8.1.12

Identify and protect land for parks and recreation within the Urban Growth Boundary.

Response: The BRCP identifies and prioritizes a network of parks, trails, and open spaces, including the South-Central Open Space Network. The proposed code amendments will support creation of the South-Central Open Space Network through required parkland dedication at the time of development and protect trail corridors throughout the district's open space system by requiring dedication of easements at the time of development. **The proposal is consistent with this Policy.**

Policy 8.1.14

Require or encourage developers to dedicate park sites as part of the subdivision review process. When possible, require or encourage developers to build parks to City standards and give them to the City to operate and maintain.

Response: The proposed code amendments will require parkland dedication to create the South-Central Open Space Network as part of subdivision review process. **The proposal is consistent with this Policy.**

Goal 9.1 Improve Oregon City's Economic Health

Provide a vital, diversified, innovative economy including an adequate supply of goods and services and employment opportunities to work toward an economically reasonable, ecologically sound and socially equitable economy.

Response: A core aspect of the BRCP is to create economic opportunities, and the proposed map and code amendments implement three distinct subdistricts focused on employment opportunities. The North Employment Campus, proposed for CI zoning, will provide family-wage employment opportunities. The two mixed-use subdistricts in the Mixed Employment Village and Main Street will provide goods and services, and additional jobs in those sectors. In total, the proposal is estimated to support up to 5,734 jobs, exceeding the BRCP goal of 5,000 jobs. The proposed code amendments include provisions such as sustainable design elements for industrial development and the inherent efficiencies of mixing uses within the district and individual subdistricts to reduce distances travelled to live, work, shop and eat, which will support ecologically sound economic growth. **The proposal is consistent with this Goal.**

Policy 9.1.1

Attract high-quality commercial and industrial development that provides stable, high-paying jobs in safe and healthy work environments, that contributes to a broad and sufficient tax base, and that does not compromise the quality of the environment.

Response: Three of the BRCP subdistricts, proposed to be implemented through map and code amendments, will support commercial and industrial development. The North Employment Campus, proposed for CI zoning, will support primarily industrial development with family-wage employment opportunities. The Mixed Employment Village subdistrict will provide support high-quality commercial and office employment, with similar opportunities in the Main Street subdistrict. In total, the proposal is estimated to support up to 5,734 jobs, exceeding the BRCP goal of 5,000 jobs. The proposed code amendments include provisions such as sustainable design elements for industrial development and the inherent efficiencies of mixing uses within the district and individual subdistricts to reduce distances travelled to live, work, shop and eat, which will support ecologically sound economic growth. Natural resources will be protected through the Natural Resources Overlay District (NROD)—OCMC 17.49 and Geologic Hazards—OCMC 17.44 to habitat areas to ensure development does not compromise the quality of the environment. As discussed in response to Goals 6.1 and 6.2 above, compliance with existing state and local air and water standards will ensure protection of those resources at the time of future development. **The proposal is consistent with this Policy.**

Policy 9.1.2

Contribute to the health of the regional and state economy by supporting efforts to attract "traded sector industries" such as high technology and production of metals, machinery, and transportation equipment. (Traded sector industries compete in multi-state, national, and international markets and bolster the state's economy by bringing money in from sales of goods and services outside of the state.)

Response: The BRCP prioritizes recruitment of sustainable industries, which could include traded sector industries. The proposed map and code amendments support this goal by creating development opportunities for such industries within the proposed North Employment Campus and Mixed Employment Village subdistrict. Additional recruitment efforts will be led by the City's Economic Development Department. **The proposal is consistent with this Policy.**

Goal 9.3 Retention of Existing Employers

Retain existing employers, both public and private, and encourage them to expand their operations within the City.

Response: The proposed map and code amendments will create significant new acreage for industrial and employment growth, which could be acquired and developed by existing employers looking to expand their operations. **The proposal is consistent with this Policy.**

Policy 9.3.1

Protect existing industries from encroachment by incompatible land uses, and ensure that expansion options are available to them wherever possible.

Response: The proposed map amendments will not create any incompatible land uses near existing industries. The proposed map and code amendments will create significant new acreage for industrial and employment growth, which could be acquired and developed by existing employers looking to expand their operations. **The proposal is consistent with this Policy.**

Goal 9.5 Retail Service

Allow a variety of retail outlets and shopping areas to meet the needs of the community and nearby rural areas.

Response: The proposed map and code amendments will support the creation of the Main Street subdistrict along Glen Oak Road providing retail and shopping opportunities for the immediate BRCP district and nearby areas. The code amendments specifically support retail development by limiting residential uses to upper stories and the rear portion of sites, to ensure commercial development remains the priority. Limited retail outlets are also permitted under the proposed

code amendments for the Mixed Employment Village to support those who work and live in the subdistrict. **The proposal is consistent with this Goal.**

Policy 9.5.1

Develop local neighborhood or specific plans, when appropriate, to blend infill development along linear commercial areas into existing neighborhoods.

Response: The BRCP district is undeveloped and as such, does not have existing commercial or existing neighborhoods; the plan as implemented by the proposed map and code amendments proactively creates opportunities to blend commercial development within neighborhoods. The proposed map and code amendments create opportunities for retail and commercial development primarily within the Main Street subdistrict, which is located along Glen Oak Road interior to the district, rather than strung out as a linear commercial development along Beavercreek Road. The proposed code amendments also allow small-scale retail and commercial development within the West Mixed-Use Neighborhood to the south of the Main Street subdistrict. **The proposal is consistent with this Policy.**

Policy 9.5.2

Develop plans to provide necessary public services to surrounding rural industrial lands for future development.

Response: No changes are proposed to adopted infrastructure master plans for water, sewer and stormwater and the Transportation System Plan (TSP) which will ensure provision of necessary services to industrial lands within and outside of the BRCP district. **The proposal is consistent with this Policy.**

Goal 9.7 Home-Based Businesses

Provide a supportive climate for home-based businesses.

Response: The City has already adopted standards and permitting processes for home occupations, defined by OCMC 17.04.580 and permitted in all residential zones. The City has developed a worksheet to support owners of home occupations to comply with business licensing and zoning requirements. (See https://www.orcity.org/sites/default/files/fileattachments/economic_development/page/4592/2016_home_occupation_worksheet_-_fillable.pdf) Home-based businesses will similarly be allowed and supported within residential areas of the BRCP district. **The proposal is consistent with this Goal.**

Policy 9.7.1

Encourage home-based businesses that are low impact and do not disrupt the residential character of the neighborhoods in which they are located.

Response: No changes are proposed to adopted home occupation standards in OCMC 17.04.580, which limit disruptions to neighborhood residential character by prohibiting non-resident employees, prohibiting retail sales onsite, prohibiting off-site sound impacts, prohibiting outdoor uses, and requiring that uses are secondary to the residential purpose of the dwelling. During the development of the code amendments, a "cottage industry" concept was explored to permit small-scale manufacturing based businesses as home occupations within the BRCP neighborhoods, such as welding or cabinet making. Some small-scale manufacturing could be permitted under the existing home occupations code, provided it was conducted indoors and did not generate off-site sound impacts, however, changes to the home occupation standards to promote such uses or loosen current restrictions are not recommended based on citizen feedback concerning potential disruptions to residential neighborhood character. During the April 9, 2019 public workshop, citizens shared concerns that noise and visual impacts from potential cottage manufacturing uses could be a conflict with residential neighborhoods, as well as concern that the smaller homes and dwelling types proposed in the BRCP neighborhoods would not have sufficient room for such uses or sufficient buffering between residences. Therefore, existing home occupation standards are proposed for BRCP neighborhoods to encourage home-based businesses while limiting disruptions to residential neighborhoods. **The proposal is consistent with this Policy.**

Policy 9.7.2

Encourage the support services that home-based businesses need.

Response: No changes are proposed to adopted home occupation standards in OCMC 17.04.580 or City policies to support business owners. The City will continue to work with business owners to support them in obtaining business licenses. The plan provides nearby mixed use and employment districts to support home based businesses. **The proposal is consistent with this Policy.**

Goal 9.8 Transportation System

Recognize the importance of the land use-transportation link and encourage businesses to locate in areas already served by the type of transportation system they need.

Response: The adopted BRCP transportation strategy includes elements such as planning a mixed-use community that will increase options for internal trip making, developing a framework of collector streets, improving Beavercreek Road itself to accommodate trips within and through the district, and developing off-site transportation connections guided by the Transportation System Plan; the transportation strategy was developed to serve the intended industrial and

commercial development in each subdistrict. The proposed map and code amendments provide for the intended types of development in each subdistrict, that will be served by existing and planned transportation elements. **The proposal is consistent with this Goal.**

Policy 9.8.1

Through coordination with TriMet and local employers, encourage and promote the use of mass transit to travel between residential areas and employment areas.

Response: The adopted BRCP sets the stage for future transit by providing transit-attractive destinations, such as high-density employment and residential nodes, and a logical network of roadways that would support future transit routes. The proposed map and code amendments support future transit improvements by implementing the plan subdistricts that concentrate job and housing densities near Beavercreek Road and the transit center at Clackamas Community College. **The proposal is consistent with this Policy.**

Policy 9.8.4

Promote "shared parking" and transportation demand management techniques such as transit vouchers, car or van pooling, and flexible schedules and telecommuting options to reduce peak hour trips.

Response: The adopted parking standards permit shared parking facilities per OCMC 17.52.020.B.2, and will apply to development within the BRCP area. Additional transportation demand management techniques are more appropriate for individual businesses to develop, and can be implemented at the time of development. **The proposal is consistent with this Policy.**

Policy 9.8.6

Encourage the provision of multi-modal transportation to support major existing employers.

Response: There are no existing employers within the BRCP area that will be affected by the proposed map and code amendments. However, the amendments will support development of a multimodal transportation system throughout the BRCP area consistent with adopted transportation strategies, including transit, sidewalks, bike routes, and off-street trail network that will serve future employers in the North Employment Campus and throughout the district. **The proposal is consistent with this Policy.**

Policy 9.8.7

Assess methods to integrate the pedestrian, bicycle and elevator transportation modes into the mass transit system.

Response: The adopted transportation strategies in the BRCP include development of on and off-street pedestrian and bicycle facilities throughout the district; an elevator mode is not proposed because it is not suitable for the district's topography. The proposed map and code amendments support future development of these facilities by requiring facilities to be constructed at the time of site development. **The proposal is consistent with this Policy.**

Goal 10.1 Diverse Housing Opportunities

Provide for the planning, development and preservation of a variety of housing types and lot sizes.

Response: The BRCP prioritizes a variety of housing types for a range of income levels across the different subdistricts. The proposed map and code amendments support these goals by implementing the West and East Mixed Use Neighborhoods, with additional residential opportunities in the mixed-use Main Street and Mixed Employment Village subdistricts. The proposed zoning districts for the West and East Mixed-Use Neighborhoods are R-2 and R-5, respectively; these districts were significantly revised as part of the Amendments to the Oregon City Municipal Code (including the Equitable Housing Project recommendations) earlier in 2019 to better meet this goal. The housing code amendments allow for a broad range of housing options collectively referred to as "missing middle housing," defined as a range of multi-unit or clustered housing types compatible in scale with single-family homes that help meet the growing demand for housing choices at a variety of scales across a variety of neighborhoods, encouraging a more diverse housing stock in residential zones that are currently dominated by single-family residential homes. The proposed map and code changes with this proposal implement these zones and will guide planning and development of a variety of housing types and lot sizes. **The proposal is consistent with this Goal.**

Policy 10.1.1

Maintain the existing residential housing stock in established older neighborhoods by maintaining existing Comprehensive Plan and zoning designations where appropriate.

Response: There are no established older neighborhoods in the BRCP area, however, there are a handful of existing residences. The proposed code amendments will permit existing homes with proposed CI zoning to remain permitted uses rather than making them nonconforming uses. **The proposal is consistent with this Policy.**

Policy 10.1.2

Ensure active enforcement of the City of Oregon City Municipal Code regulations to ensure maintenance of housing stock in good condition and to protect neighborhood character and livability.

Response: No changes are proposed to the code enforcement standards or policies with this proposal. As neighborhoods are developed in the BRCP area, code enforcement will ensure housing and neighborhoods are maintained in good condition. **The proposal is consistent with this Policy.**

Policy 10.1.3

Designate residential land for a balanced variety of densities and types of housing, such as single-family attached and detached, and a range of multi-family densities and types, including mixed-use development.

Response: The proposed map amendments designate land for a variety of densities and types of housing as follows: 25.1 gross acres of High Density Residential with R-2 zoning, 136.7 gross acres of Medium Density Residential with R-5 zoning, and 13.5 gross acres of Mixed-Use Corridor with NC zoning for mixed-use residential development. The existing zoning standards for these districts permit a range of densities for different housing types ranging from a minimum of 7.0 units per net acre for single-family detached homes in the R-5 zone to a maximum of 21.8 units per net acre for townhouse and multifamily development in the R-2 zone, or up to 26.2 units per net acre for projects that incorporate sustainability features in the proposed code amendments. **The proposal is consistent with this Policy.**

Policy 10.1.4

Aim to reduce the isolation of income groups within communities by encouraging diversity in housing types within neighborhoods consistent with the Clackamas County Consolidated Plan, while ensuring that needed affordable housing is provided.

Response: The proposed map and code amendments apply the revised R-5 and R-2 zoning district standards that were developed as part of the Equitable Housing Project specifically to provide greater variety of affordable housing options, both regulated, income-restricted housing options and market-rate housing options that are lower priced and thus affordable to housing with lower household incomes. The variety of housing types allowed in both zones will provide opportunities to integrate affordable housing into the BRCP neighborhoods as they are developed. **The proposal is consistent with this Policy.**

Policy 10.1.5

Allow Accessory Dwelling Units under specified conditions in single-family residential designations with the purpose of adding affordable units to the housing inventory and

providing flexibility for homeowners to supplement income and obtain companionship and security.

Response: Accessory Dwelling Units (ADUs) are permitted in both the R-5 and R-2 zoning districts proposed for the BRCP neighborhoods with this proposal; no further changes to the ADU regulations are included with this proposal. Code revisions adopted with the Amendments to the Oregon City Municipal Code (including the Equitable Housing Project recommendations) included a provision in OCMC 16.08.095 that restricts new subdivisions from applying code, covenants, and restrictions (CC&Rs) that prohibit ADUs, which will ensure that new developments within the BRCP are not restricted by public zoning code or private CC&Rs from developing ADUs. **The proposal is consistent with this Policy.**

Policy 10.1.6

Allow site-built manufactured housing on individual lots in single-family residential zones to meet the requirements of state and federal law. (Pursuant to state law, this policy does not apply to land within designated historic districts or residential land immediately adjacent to a historic landmark.)

Response: The Oregon City Municipal Code does not differentiate between manufactured housing and other housing types on individual lots and the proposed code amendments do not propose to change this; an individual manufactured house is permitted on any lot where a single-family detached, site-built house would be permitted in the BRCP neighborhoods under the proposed R-5 and R-2 zoning. **The proposal is consistent with this Policy.**

Policy 10.1.7

Use a combination of incentives and development standards to promote and encourage well-designed single-family subdivisions and multi-family developments that result in neighborhood livability and stability.

Response: The proposed map amendments apply the R-2 and R-5 zoning districts within the BRCP, which already incorporate numerous incentives and development standards to support livability and stability. The proposed code amendments further support livable neighborhoods by requiring parkland dedication or fee-in-lieu for all new subdivisions and multifamily developments, to create the South-Central Open Space Network with park and trail facilities serving the BRCP neighborhoods. The proposed amendments also include a density bonus option as an incentive for multifamily development to incorporate sustainability features. **The proposal is consistent with this Policy.**

Goal 10.2 Supply of Affordable Housing

Provide and maintain an adequate supply of affordable housing.

Response: The proposed map amendments add significant buildable residential land to the City's inventory, including 12.1 net acres of buildable land zoned R-2 in the West Mixed Use Neighborhood and 64.5 net acres of buildable land plus 15.9 acres of constrained land zoned R-5 in the East Mixed Use Neighborhood and additional opportunities in the two mixed-use subdistricts with a combined estimated potential for 1,105 new housing units. Maintaining an adequate supply of buildable land will help keep housing prices affordable by reducing land scarcity. These areas will be developed under the R-5 and R-2 zoning district standards recently amended with the Amendments to the Oregon City Municipal Code (including the Equitable Housing Project recommendations) project that expand the range of housing types permitted, decrease minimum lot sizes for many types, and increase density for some missing middle housing types. Together, these standards create opportunities to build market-rate housing that is more affordable than traditional single-family detached, large-lot subdivisions. **The proposal is consistent with this Policy.**

Policy 10.2.1

Retain affordable housing potential by evaluating and restricting the loss of land reserved or committed to residential use. When considering amendments to the Comprehensive Plan Land-Use Map, ensure that potential loss of affordable housing is replaced.

Response: The proposed map amendments commit a total of 161.8 gross acres of land for residential use, consistent with the BRCP map; no existing residential land or affordable housing will be lost with this proposal. **The proposal is consistent with this Policy.**

Policy 10.2.2

Allow increases in residential density (density bonuses) for housing development that would be affordable to Oregon City residents earning less than 50 percent of the median income for Oregon City.

Response: The proposed map amendments apply the R-2 zone to the West Mixed Use Neighborhood, and existing R-2 code standards provide up to a 20% density bonus for affordable units at 80% AMI for a minimum term of 30 years for apartment projects. No further changes to the affordable housing density bonus is proposed with this project. **The proposal is therefore consistent with this policy.**

Policy 10.2.3

Support the provision of Metro's Title 7 Voluntary Affordable Housing Production Goals.

Response: (From Comprehensive Plan, P. 77):

> *In 2001, Metro adopted amendments to Title 7 of the Urban Growth Management Functional Plan to implement the Regional Affordable Housing Strategy (2000), which identifies measures to provide adequate affordable housing in the Metro region. The amendments require local jurisdictions to consider adopting a number of tools and strategies for promoting the creation and retention of affordable housing. Metro defines an affordable housing unit as one that requires no more than 30 percent of household income for people earning 50 percent of the median household income in their jurisdiction. By that definition, an affordable housing unit in Oregon City in 2000 would cost $570 per month or less. The 2002 housing inventory and analysis showed that the number of lower-cost units in Oregon City was inadequate to meet both the current (2002) and projected housing needs of the city's lower-income residents. Title 7 tools and strategies have been adopted as Goal 10.2 and Policies 10.2.1 through 10.2.4.*

The proposed map and code amendments support affordable housing creation consistent with Title 7 through compliance with Goal 10.2 and Policies 10.2.1 through 10.2.4, as demonstrated in this section. **The proposal is consistent with this Policy.**

Policy 10.2.4

Provide incentives that encourage the location of affordable housing developments near public transportation routes. Incentives could include reduction of development-related fees and/or increases in residential density (density bonuses).

Response: As mentioned in Policy 10.1.4, the West Mixed Use Neighborhood will be zoned R-2 under the proposed map amendments and the R-2 standards include a 20% density bonus for affordable units at 80% AMI for a minimum term of 30 years. The West Mixed Use Neighborhood is located along Beavercreek Road and the future Center Parkway which have been identified as potential future public transportation routes. **The proposal is consistent with this Policy.**

Goal 11.1 Provision of Public Facilities

Serve the health, safety, education, welfare, and recreational needs of all Oregon City residents through the planning and provision of adequate public facilities.

Policy 11.1.1

Ensure adequate public funding for the following public facilities and services,

if feasible:

- *Transportation infrastructure*
- *Wastewater collection*
- *Stormwater management*
- *Police protection*
- *Fire protection*
- *Parks and recreation*
- *Water distribution*

Response: As demonstrated within this report the aforementioned systems can accommodate the impact anticipated in the Concept Plan.

Policy 11.1.7

Develop and maintain a coordinated Capital Improvements Plan that provides a framework, schedule, prioritization, and cost estimate for the provision of public facilities and services within the City of Oregon City and its Urban Growth Boundary

Response: As demonstrated within this report the aforementioned systems can accommodate the impact anticipated in the Concept Plan.

Goal 12.1 Land Use-Transportation Connection

Ensure that the mutually supportive nature of land use and transportation is recognized in planning for the future of Oregon City.

Response: The adopted BRCP includes interconnected land use and transportation elements that ensure appropriately scaled multimodal facilities will serve future development. The plan establishes a variety of interconnected subdistricts with a mix of uses that increase opportunities for local trips while decreasing total trips utilizing the broader transportation network. The proposed map and code amendments implement this vision to balance land use and transportation goals; the proposal is supported by a transportation memo prepared by DKS that concludes that development associated with the proposal can be served by the planned City-wide transportation system. **The proposal is consistent with this Goal.**

Policy 12.1.1

Maintain and enhance citywide transportation functionality by emphasizing multi-modal travel options for all types of land uses.

Response: The adopted BRCP includes multimodal transportation provisions. As development occurs, on-street and off-street pedestrian and bicycle facilities will be required to be constructed as outlined in the plan. The proposed map and code amendments are consistent with the BRCP and will support expanded multimodal facilities throughout the district serving all the different land uses from industrial to residential. **The proposal is consistent with this Policy.**

Policy 12.1.3

Support mixed uses with higher residential densities in transportation corridors and include a consideration of financial and regulatory incentives to upgrade existing buildings and transportation systems.

Response: The proposed map and code amendments create mixed-use subdistricts including the NC-zoned Main Street and MUC-II-zoned Mixed Employment Village that permit high-density residential development, as well as a mix of uses within the district as a whole across the five subdistricts. The map and code amendments will facilitate a mix of uses at higher residential densities along Beavercreek Road, including the two aforementioned mixed-use districts and the R-2-zoned West mixed Use Neighborhood. There are no significant existing buildings within the BRCP area affected by this policy. **The proposal is consistent with this Policy.**

Policy 12.1.4

Provide walkable neighborhoods. They are desirable places to live, work, learn and play, and therefore a key component of smart growth.

Response: Walkability is a central goal of all the BRCP neighborhoods, and is supported by the proposed map and code amendments. Neighborhoods will built around blocks with a maximum block length of 530 feet, except for the industrial areas in the North Employment Campus, consistent with zoning standards in OCMC 16.12.030 for implementing districts that create easily walkable neighborhoods that minimize out-of-direction travel by pedestrians. On-street pedestrian facilities will be required consistent with green street cross-sections which create a desirable walking environment, in addition to an off-street trail network. The proposed code amendments support a compelling, walkable Main Street subdistrict along Glen Oak road by requiring building presence along a minimum percentage of the site and limiting parking areas to the rear of the site. **The proposal is consistent with this Policy.**

Goal 13.1 Energy Sources

Conserve energy in all forms through efficient land-use patterns, public transportation, building siting and construction standards, and city programs, facilities, and activities.

Response: The Concept Plan includes an efficient mix of uses to allow those that leave in or near the site to also obtain amenities and employment nearby.

Goal 14.3 Orderly Provision of Services to Growth Areas

Plan for public services to lands within the Urban Growth Boundary through adoption of a concept plan and related Capital Improvement Program, as amendments to the Comprehensive Plan.

Response: The proposed map and code amendments implement an adopted concept plan for Beavercreek Road. The Sanitary Sewer Master Plan (2014), Water Distribution Master Plan (2012), Stormwater Master Plan (2019 Draft), and Transportation System Plan (2013) were all created subsequent to initial adoption of the BRCP in 2008 and plan for public services to serve residential and employment growth forecasted for the concept plan area. The proposed map and code amendments are estimated to support 1,105 dwellings and 5,734 jobs, consistent with demand forecasted and planned for in adopted capital improvements plans. **The proposal is consistent with this Goal.**

Policy 14.3.1

Maximize new public facilities and services by encouraging new development within the Urban Growth Boundary at maximum densities allowed by the Comprehensive Plan.

Response: The proposed map and code amendments provide for higher densities in the BRCP area to maximize utility of new public facilities developed to serve the area. Residential development will be subject to high and medium-density residential standards in the R-2 and R-5 districts respectively. Both zones have minimum density standards equal to 80% of the maximum allowed density, to ensure higher density development, as well as opportunities for types like cluster housing, duplexes, and 3-4 plexes in the R-5 zone that allow higher densities than would otherwise be permitted for single-family detached residential uses. Employment development in the two mixed-use districts will be subject to FAR minimums under the proposed code amendments to ensure efficient use of land and public facilities. **The proposal is consistent with this Policy.**

Policy 14.3.2

Ensure that the extension of new services does not diminish the delivery of those same services to existing areas and residents in the city.

Response: The adopted Sanitary Sewer Master Plan (2014), Water Distribution Master Plan (2012), Stormwater Master Plan (2019 Draft), and Transportation System Plan (2013) ensure that public facilities are extended to new areas, including the BRCP area and development anticipated through the proposed map and code amendments, without compromising the ability to provide services to existing areas and residents of the city that meet adopted service standards. **The proposal is consistent with this Policy.**

Policy 14.3.3

Oppose the formation of new urban services districts and oppose the formation of new utility districts that may conflict with efficient delivery of city utilities within the Urban Growth Boundary.

Response: The BRCP area is within the future service area of city utility providers and no new urban service districts or utility districts are proposed. **The proposal is consistent with this Policy.**

Policy 14.3.4

Ensure the cost of providing new public services and improvements to existing public services resulting from new development are borne by the entity responsible for the new development to the maximum extent possible.

Response: All development proposed with the BRCP area under the proposed map and code amendments will be subject to development review, which requires that new development provide for on-site and off-site public services needed to serve the development. The City has also adopted System Development Charges (SDCs) that are assessed at the time of development to pay for the costs of expanding public services. **The proposal is consistent with this Policy.**

III.c. BEAVERCREEK ROAD CONCEPT PLAN GOALS AND POLICIES

Goal 1 Complete and Sustainable Community

Create a complete and sustainable community, in conjunction with the adjacent land uses, that integrates a diverse mix of uses, including housing, services, and public spaces that are necessary to support a thriving employment center.

Response: The proposal implements the plan vision for a mix of uses within the district and within individual subdistricts, notably the Mixed Employment Village and the Main Street subdistricts. Housing is provided for in all subdistricts except the North Employment Campus. Services are permitted through proposed zoning standards in all subdistricts except the East Mixed Use Neighborhood. Public spaces

are provided for consistent with the BRCP, including the South Central Open Space Network, powerline corridor and trail network. Many of the zoning standards, particularly the expanded residential zones, support compact development, coupled with resource protection standards for sensitive environmental areas. Much of the sustainable infrastructure planning, including LID stormwater and green street designs, was done with the BRCP and can be implemented at the time of site development. **The proposal is consistent with this Goal.**

Policy 1.1

Adopt new comprehensive plan and zone designations, and development code, that implement the Beavercreek Concept Plan. Require all development to be consistent with the Concept Plan and implementing code.

Response: The proposal applies comprehensive plan and zone designations to implement the BRCP, with development code amendments that supplement existing zoning district standards for each subdistrict to fully implement the BRCP vision for those subdistricts. Development will be reviewed for conformity with the implementing code through the development review process; discretionary development applications, such as master plans, will be required to comply with the Concept Plan as well. **The proposal is consistent with this Policy.**

Policy 1.2

Establish sub-districts to implement the Concept Plan. The sub-districts are:

North Employment Campus – NEC

The purpose of the North Employment Campus is to provide for the location of family wage employment that strengthens and diversifies the economy. The NEC allows a mix of clean industries, offices serving industrial needs, light industrial uses, research and development and large corporate headquarters. The uses permitted are intended to improve the region's economic climate, promote sustainable and traded sector businesses, and protect the supply of sites for employment by limiting incompatible uses. The sub-district is intended to comply with Metro's Title 4 regulations. Site and building design will create pedestrian-friendly areas and utilize cost effective green development practices. Business and program connections to Clackamas Community College (CCC) are encouraged to help establish a positive identity for the area and support synergistic activity between CCC and NEC properties. Businesses making sustainable products and utilizing sustainable materials and practices are encouraged to reinforce the identity of the area and promote the overall vision for the Beavercreek Road area.

Response: The NEC subdistrict will be implemented with the Industrial comprehensive plan designation and the Campus Industrial (CI) zoning district. The permitted uses in OCMC 17.37.020 include a range of industrial, light manufacturing, research and development, and corporate headquarters uses that support family-wage employment. The proposed additional code standards for the NEC include limitations on retail and service uses to 5,000 SF per use or 20,000 SF total per site to limit incompatible uses. The proposed code standards and subdistrict boundaries have been reviewed against Metro Title 4 maps and code requirements. Site and building design for development in the subdistrict will be required to implement green design features from a menu proposed in OCMC 17.37.060.G. Outside of the code and map implementation projects, supporting efforts to build relationships with CCC and to recruit businesses with sustainable practices will be led by the City's Economic Development department. **The proposal is consistent with this Policy.**

Mixed Employment Village – MEV

The purpose of the Mixed Employment Village is to provide employment opportunities in an urban, pedestrian friendly, and mixed use setting. The MEV is intended to be transit supportive in its use mix, density, and design so that transit remains an attractive and feasible option. The MEV allows a mix of retail, office, civic and residential uses that make up an active urban district and serve the daily needs of adjacent neighborhoods and Beavercreek Road sub-districts. Site and building design will create pedestrian-friendly areas and utilize cost effective green development practices. Business and program connections to Clackamas Community College and Oregon City High School are encouraged. Businesses making sustainable products and utilizing sustainable materials and practices are encouraged to reinforce the identity of the area and promote the overall vision for the Beavercreek Road area.

Response: The MEV subdistrict will be implemented with the Mixed Use Corridor comprehensive plan designation and the Mixed Use Corridor-2 (MUC-2) zoning district. The permitted uses in OCMC 17.29.020, with refinements in proposed OCMC 17.29.080.C, include a range of retail, office, civic and residential uses. Proposed use standards also limit the percentage of building area that can be used for retail, service, and residential uses, to ensure that employment uses are also integrated into site development. Minimum FAR standards will support higher intensity development that will support future transit service. Site and building design for development in the subdistrict will be support an urban, pedestrian friendly setting through a height limit of 60 feet to permit multistory construction, maximum setbacks to bring development up to the street, and prohibition on

ground floor residential uses to support active ground floor uses. (See existing OCMC 17.29 and proposed 17.29.080.) Additional building and site development standards in OCMC 17.62.050 will apply at the time of development. Outside of the code and map implementation projects, supporting efforts to build relationships with CCC and to recruit businesses with sustainable practices will be led by the City's Economic Development department. **The proposal is consistent with this Policy.**

Main Street – MS

The purpose of this small mixed-use center is to provide a focal point of pedestrian activity. The MS allows small scale commercial, mixed use and services that serve the daily needs of the surrounding area. "Main Street" design will include buildings oriented to the street, and minimum of 2 story building scale, attractive streetscape, active ground floor uses and other elements that reinforce pedestrian oriented character and vitality of the area.

Response: The MC subdistrict will be implemented with the Mixed Use Corridor comprehensive plan designation and the Neighborhood Commercial (NC) zoning district. The permitted uses in OCMC 17.24.020, with refinements in proposed OCMC 17.24.050.C, include a range of retail, service and residential uses, capped at 10,000 square feet per establishment to create a small-scale character for the subdistrict. Proposed dimensional standards include a minimum height of two stories, maximum five-foot front setbacks to ensure that development engages with the street, minimum FAR of 0.5 to create more intensive development, requirement for parking areas to be located behind buildings, standards for planter boxes and urban plazas as part of required landscaping, and prohibition on ground floor residential uses to support active ground floor uses. (See existing OCMC 17.24 and proposed 17.24.050.) Additional building and site development standards in OCMC 17.62.050 will apply at the time of development. **The proposal is consistent with this Policy.**

West Mixed Use Neighborhood – WMU

The West Mixed Use Neighborhood will be a walkable, transit-oriented neighborhood. This area allows a transit supportive mix of housing, live/ work units, mixed use buildings and limited commercial uses. A variety of housing and building forms is required, with the overall average of residential uses not exceeding 22 dwelling units per acre. The WMU area's uses, density and design will support the multi-modal transportation system and provide good access for pedestrians, bicycles, transit and vehicles. Site and building design will create a walkable area and utilize cost effective green development practices.

Response: The WMU subdistrict will be implemented with the High-Density Residential comprehensive plan designation and the R-2 High-Density Residential (R-2) zoning district. Permitted residential uses, as recently expanded in the Amendments to the Oregon City Municipal Code (including the Equitable Housing Project recommendations), provide for a variety of multifamily residential, single-family attached, cluster housing, duplexes, triplexes and quadplexes. (See OCMC 17.12.020.) The proposed code amendments add live/work units as conditional uses and permit small-scale commercial and mixed-use development as part of a master plan. (See proposed OCMC 17.12.060.C.) The minimum and maximum density permitted in the R-2 district is 17.4 to 21.8 units per acre. (See OCMC 17.12.050) Up to a 20% density bonus can be earned for affordable housing or, in the WMU, for projects incorporating sustainable design features. (See proposed OCMC 17.12.D.) The base density and density bonuses together will not exceed an overall average of 22 units per acre. The density of development will support transit use, and site design will integrate pedestrian and bicycle facilities at the time of development. **The proposal is consistent with this Policy.**

East Mixed Use Neighborhood – EMU

The East Mixed Use Neighborhood will be a walkable and tree-lined neighborhood with a variety of housing types. The EMU allows for a variety of housing types while maintaining a low density residential average not exceeding the densities permitted in the R-5 zone. Limited non- residential uses are permitted to encourage a unique identity, sustainable community, and in-home work options. The neighborhood's design will celebrate open space, trees, and relationships to public open spaces. The central open space, ridge open space scenic viewpoints, and a linked system of open spaces and trails are key features of the EMU. Residential developments will provide housing for a range of income levels, sustainable building design, and green development practices.

Response: The EMU subdistrict will be implemented with the Medium-Density Residential comprehensive plan designation and the R-5 Medium-Density Residential (R-5) zoning district. Streets will be developed with sidewalks and street trees per adopted street standards, and may not exceed a maximum block length of 530 feet to ensure a robust, connected street network supporting walkability. (See OCMC 12.08, Street Trees; OCMC Table 16.12.016 for sidewalk widths; OCMC 16.12.030 for block spacing.) Permitted residential uses, as recently expanded in the Amendments to the Oregon City Municipal Code (including the Equitable Housing Project recommendations), provide for a variety of single-family detached, single-family attached, accessory dwelling units, cluster housing, duplexes, triplexes and quadplexes. (See OCMC 17.10.020.) The R-5 density standards will apply in the

EMU zone. (See OCMC 17.10.050.) The variety of residential uses, including smaller lot sizes for selected types, will support housing for a wider range of income levels. The smaller lot sizes and home sizes will inherently increase the efficiency and sustainability of residential development, for example, reducing heating and cooling needs, and the mix of uses in the BRCP district will support green living by reducing the need for vehicle trips. Home occupations will be permitted to provide in-home work options; see response to OCCP Policy 9.7.1 for further discussion. New development will be required to dedicate parkland for the South-Central Open Space, and view points will be created along the ridgeline through view corridor standards. (See proposed OCMC 16.12.042 and 17.10.070.C, respectively.) Trail corridors will be identified and reserved through the subdivision review process. (See OCMC 16.08.025.E.) **The proposal is consistent with this Policy.**

Policy 1.3

Within the Northern Employment Campus sub-district, support the attraction of family wage jobs and connections with Clackamas Community College.

Response: Under the proposed code amendments, the NEC subdistrict permits a range of industrial, light manufacturing, research and development, and corporate headquarters uses that support family-wage employment. Outside of the code and map implementation projects, supporting efforts to build relationships with CCC and to recruit businesses with family-wage jobs will be led by the City's Economic Development department. **The proposal is consistent with this Policy.**

Policy 1.4

Within the Mixed Employment Village and Main Street sub-districts, promote job creation, mixed use and transit oriented development. Adopt minimum densities, limitations on stand-alone residential developments, and other standards that implement this policy.

Response: Under the proposed code amendments, the MEV and MS subdistricts permit a range of employment opportunities including light manufacturing (MEV only), office, retail and service uses. Proposed code standards require that residential uses be proposed as part of a mixed-use project, rather than stand-alone residential developments, and limit residential uses to upper-stories in both the MS and MEV subdistricts. (See proposed OCMC 17.24.050.E and 17.29.080.E.) In the MS subdistrict, ground-floor residential uses may also be permitted on the rear of sites, set back a minimum of 150 feet from the front property line and not to exceed 50% of the total building site area, with a minimum density of 17.4 units per acre. (See proposed OCMC 17.24.050.E.) **The proposal is consistent with this Policy.**

Policy 1.5

The Main Street sub-district may be located along the extension of Glen Oak Road and not exceed 10 gross acres. The specific configuration of the MS sub-district may be established as part of a master plan.

Response: The proposed map amendments designate the MS subdistrict along Glen Oak Road, totaling 13.5 gross acres or 6.6 net acres. The gross acre numbers that we have include the ROW along Glen Oak and Center/Holly, which may be inflating this figure. **The proposal is consistent with this Policy.**

Policy 1.6

Within the West and East Mixed Use Neighborhoods, require a variety of housing types. Allow lot size averaging and other techniques that help create housing variety while maintaining overall average density.

Response: Permitted residential uses in R-5 and R-2 zoning districts, proposed to implement the EMU and WMU subdistricts, provide for a variety of single-family detached, single-family attached, accessory dwelling units, multifamily, cluster housing, duplexes, triplexes and quadplexes. (See OCMC 17.10.020 and 17.12.020.) Lot size averaging is permitted per OCMC 16.08.065. **The proposal is consistent with this Policy.**

Policy 1.7

Within the MEV, MS, WMU and EMU sub-districts, require master plans to ensure coordinated planning and excellent design for relatively large areas (e.g. 40 acres per master plan). Master plans are optional in the NEC due to the larger lot and campus industrial nature of the area.

Response: Master planning is permitted in all subdistricts as a discretionary review alternative. (OCMC 17.65.) Mandatory master planning is not proposed in light of state standards requiring clear and objective residential development standards and proposed amendments which address concerns generally reserved for Master Plans, such as required park aquisition. Since 2008 when the BRCP was developed, state law has been strengthened to require a clear and objective review option for all residential and mixed-use development to provide greater certainty for housing development. (ORS 197.303, 197.307.) Master planning provisions are generally discretionary, and so should not be made mandatory for residential or mixed-use areas. Many of the concept plan provisions, such as green streets and LID stormwater development, can be implemented by existing or proposed code standards and thereby meet the master planning intent. Master planning can provide an alternative review path, with incentives such as higher densities or modifications to base zone standards like minimum lot sizes. The City could also

require master planning as a condition of annexation or zone change. **The proposal is consistent with this Policy.**

Goal 2 Model of Sustainable Design

Be a model of sustainable design, development practices, planning, and innovative thinking.

Response: The greatest strength of the BRCP, as implemented by the proposed map and code changes, is the mix of uses that will support a vibrant, interconnected district. Much of the sustainable infrastructure planning, including LID stormwater and green street designs, was done with the BRCP and subsequent utility master planning, will can be implemented at the time of site development. Many of the zoning standards, particularly the expanded uses in the residential zones, support compact development, coupled with resource protection standards for sensitive environmental areas. The proposed code amendments include site-specific sustainable design features required in the NEC subdistrict through the implementing CI standards, and incentivized in the WMU subdistrict through the implementing R-2 standards in the form of a density bonus. Future implementation efforts will continue building partnerships with private and institutional stakeholders to further support sustainable development and economic development. **The proposal is consistent with this Goal.**

Policy 2.1

Implement the Sustainable Storm Water plan recommended in the Concept Plan. During site specific design, encourage innovative system design and require low impact development practices that manage water at the site, street and neighborhood scales.

Response: Since the BRCP was initially written in 2008, the City has adopted the Stormwater and Grading Design Standards (2015), emphasize low-impact development (LID) practices, source controls for higher pollutant generating activities, erosion prevention and sediment controls, and operation and maintenance practices designed to properly manage stormwater runoff and protect our water resources. Some of the LID techniques permitted include porous pavement, green roofs, filtration planters, infiltration planters, swales, and rain gardens. (See https://www.orcity.org/publicworks/stormwater-and-grading-design-standards) **The proposal is consistent with this Policy.**

Policy 2.2

Storm water facilities will be designed so they are amenities and integrated into the

overall community design.

Response: LID techniques such as green roofs, filtration planters, infiltration planters, swales, and rain gardens, consistent with the 2015 Stormwater and Grading Design Standards, will serve as amenities integrated into the community. **The proposal is consistent with this Policy.**

Policy 2.3

Support public and private sector initiatives to promote sustainable design, development practices and programs, including but not limited to:

- Energy efficiency
- Water conservation
- Compact development
- Solar orientation
- Green streets/infrastructure
- Adaptive reuse of existing buildings/infrastructure
- Alternative transportation
- Pedestrian/Cyclist friendly developments
- Natural drainage systems
- Tree preservation and planting to "re-establish" a tree canopy
- Minimizing impervious surfaces
- Sustainability education (builder, residents, businesses and visitors)
- Collaboration with "local" institutional and economic partners, particularly Clackamas Community College and Oregon City High School
- Community based sustainable programs and activities

Response: Many of these initiatives are ongoing and involve multiple stakeholders, which the City will continue to support. The proposed map and code amendments will directly and indirectly support a number of them. The proposed residential standards in particular support compact development by allowing a variety of residential units at higher density than permitted density for single-family detached residential uses. The City has adopted green street standards with the 2013 Transportation System Plan and the low impact development stormwater and grading design standards that will be applied to all new development. Sidewalks and bicycle lanes will be built with new roadways at the time of development to

provide alternative transportation infrastructure, as well as off-street trails. Bicycle parking will be required in new developments per OCMC 17.52.040. Tree protection, preservation, removal and replanting is regulated per OCMC 17.41 to support tree preservation. Impervious surfaces can be minimized through application of the low impact development stormwater standards, and supported by recent reductions to off-street parking required for residential uses in OCMC 17.52 with the Amendments to the Oregon City Municipal Code (including the Equitable Housing Project recommendations). **The proposal is consistent with this Policy.**

Policy 2.4

Work with stakeholders and the community to develop LEED or equivalent green building standards and guidelines to apply in the Concept Plan area.

Response: As part of the proposed code amendments, industrial development in the NEC subdistrict will be required to incorporate sustainable design features; one option is to propose a LEED certified building. (See proposed OCMC 17.37.060.G.8.) Similarly, WMU development may elect to build to LEED standards as one option to qualify for a density bonus. (See proposed OCMC 17.12.060.D.12.) The existing site development standards in OCMC 17.62 that apply to all new development except low-density residential already include green building standards and guidelines that supports sustainability. For example, 15% site landscaping is required along with conservation of natural resource areas which, along with adopted LID stormwater standards, minimizes impervious surface and treats stormwater runoff. Mandatory green building standards for all development, beyond the sustainable features for industrial and high-density residential, are not recommended. Requiring compliance with a third-party set of standards, such as LEED, is inherently problematic because it outsources City decision-making to a third party, with standards that are updated more frequently than City code is updated. **The proposal is consistent with this Policy.**

Goal 3 Green Jobs

Attract "green" jobs that pay a living wage.

Response: The proposed map and code amendments lay the foundation for future "green" job and green industry recruitment by designating 135.1 net acres for industrial development under the CI standards, and permitting a wide range of industrial, research and development, and corporate headquarters uses. Further business recruitment efforts will be led by the City's Economic Development department and community partners to promote the BRCP area, building off the existing Beavercreek Employment Area efforts that already include a portion of the

BRCP area. (See https://www.orcity.org/economicdevelopment/beavercreek-employment-area) **The proposal is consistent with this Goal.**

Policy 3.1

Coordinate with county, regional and state economic development representatives to recruit green industry to the Concept Plan area.

Response: The proposed map and code amendments will support business recruitment efforts for the BRCP area that will be led by the City's Economic Development department and county, regional and state economic development representatives. The City can expand current partnerships such as the Beavercreek Employment Area Blue Ribbon Committee that include city, county and regional representatives. (See https://www.orcity.org/sites/default/files/fileattachments/economic_development/page/11230/beavercreek_employment_area_-_marketing_and_recruitment_strategy.pdf) The Committee was identified as a stakeholder in this implementation project and provided their input at a meeting held January 17, 2019. **The proposal is consistent with this Policy.**

Policy 3.2

Promote the Concept Plan area as a place for green industry.

Response: The proposed map and code amendments will support business promotion efforts for the BRCP area that will be led by the City's Economic Development department. The City can promote the BRCP area, building off the existing Beavercreek Employment Area efforts that already include a portion of the BRCP area. (See https://www.orcity.org/economicdevelopment/beavercreek-employment-area) **The proposal is consistent with this Policy.**

Policy 3.3

Work with Clackamas Community College to establish programs and education that will promote green development within the Concept Plan area.

Response: Clackamas Community College was identified as a stakeholder in this implementation project and interviewed early in the process to incorporate their ideas into the map and code amendments. The College has participated in the Beavercreek Employment Area efforts to date as a member of the Blue Ribbon Committee and the City will continue working with the College. **The proposal is consistent with this Policy.**

Goal 4 Sustainable Industries

Maximize opportunities for sustainable industries that serve markets beyond the

Portland region and are compatible with the site's unique characteristics.

Response: The proposed map and code amendments lay the foundation for sustainable industries by designating 135.1 net acres for industrial development under the CI standards, and permitting a wide range of industrial, research and development, and corporate headquarters uses. Further business recruitment efforts will be led by the City's Economic Development department and community partners to promote the BRCP area, building off the existing Beavercreek Employment Area efforts that already include a portion of the BRCP area. (See https://www.orcity.org/economicdevelopment/beavercreek-employment-area) **The proposal is consistent with this Goal.**

Policy 4.1

As master plans are approved, ensure there is no net loss of land designated North Employment Campus.

Response: The proposed map amendments designate 236.1 gross acres with an estimated 135.1 net acres with the Industrial comprehensive plan designation and CI zoning district. Any rezoning proposal will have to show compliance with the BRCP, including this policy, which will prevent any net loss of NEC land. Much of the NEC land is designated Industrial land consistent with Metro Title 4 regulations, and is further protected from conversion to non-industrial uses by Metro standards. (See https://www.orcity.org/sites/default/files/fileattachments/planning/page/12700/title_4_map_-_employment_and_industrial_land.pdf) **The proposal is consistent with this Policy.**

Policy 4.2

Coordinate with County, regional and state economic development representatives to recruit sustainable industries that serve markets beyond the Portland region.

Response: The proposed map and code amendments will support business recruitment efforts for the BRCP area that will be led by the City's Economic Development department and county, regional and state economic development representatives. The City can expand current partnerships such as the Beavercreek Employment Area Blue Ribbon Committee that include city, county and regional representatives. (See https://www.orcity.org/sites/default/files/fileattachments/economic_development/page/11230/beavercreek_employment_area_-_marketing_and_recruitment_strategy.pdf) The Committee was identified as a stakeholder in this implementation project and provided their input at a meeting held January 17, 2019. **The proposal is consistent with this Policy.**

Goal 5 Natural Beauty

Incorporate the area's natural beauty into an ecologically compatible built environment.

Response: The proposed map and code amendments will protect natural resources within the future built environment of the district by requiring dedication of parkland to create the South-Central Open Space Network, requiring dedication of trail corridors identified in the BRCP, protecting trees per OCMC 17.41, and protecting riparian habitat and geologic hazard areas from development through application of the Natural Resources Overlay District in OCMC 17.49 and the Geologic Hazards Overlay Zone in OCMC 17.44. **The proposal is consistent with this Goal.**

Policy 5.1

Incorporate significant trees into master plans and site specific designs. Plant new trees to establish an extensive tree canopy as part of the creation of an urban community.

Response: All future development in the areas affected by this proposal will be required to comply with tree protection standards in OCMC 17.41, which include replanting standards with development. **The proposal is consistent with this Policy.**

Policy 5.2

Provide scenic viewpoints and public access along the east ridge.

Response: Under the proposed map and code amendment, the east ridge area will be zoned R-5. Proposed R-5 standards for the BRCP area in proposed OCMC 17.10.070 include view protection standards along the ridgeline requiring view corridors. (See proposed OCMC 17.10.070.C.) An additional viewpoint is incorporated in the South Central Open Space extent; those parklands will be required to be dedicated at the time of residential development. (See proposed OCMC 16.12.042.) The east ridge trail corridor as identified in the Trails Master Plan will be identified and reserved through the subdivision review process, ensuring public access. (See OCMC 16.08.025.E.) **The proposal is consistent with this Policy.**

Policy 5.3

Protect views of Mt Hood and locate trails and public areas so Mt Hood can be viewed within the community.

Response: Under the proposed map and code amendment, trails and public areas identified in the BRCP will be acquired by the City and protected from

development, which will protect views of Mt Hood from those facilities. Parkland within the South Central Open Space Network will be required to be dedicated at the time of residential development. (See proposed OCMC 16.12.042 and 17.62.058.) Trail corridors as identified in the Trails Master Plan will be identified and reserved through the development review process, including a 30-foot corridor through the powerline easement area identified in the BRCP as providing Mt Hood views. (See OCMC 16.08.025.E and proposed 17.37.060.F.) **The proposal is consistent with this Policy.**

Policy 5.4

Establish open space throughout the community consistent with the Open Space Framework Plan. Allow flexibility in site specific design of open space, with no net loss of total open space area.

Response: Under the proposed map and code amendment, open spaces identified in the BRCP will be protected from development and/or acquired by the City. Parkland within the South Central Open Space Network will be required to be dedicated at the time of residential development. (See proposed OCMC 16.12.042 and 17.62.058.) Trail corridors as identified in the Trails Master Plan will be identified and reserved through the development review process. (See OCMC 16.08.025.E.) Additional natural, undeveloped open space will be protected through application of the Natural Resources Overlay District in OCMC 17.49 and the Geologic Hazards Overlay Zone in OCMC 17.44 which restrict development in sensitive areas. **The proposal is consistent with this Policy.**

Policy 5.5

Protect steeply sloped and geologically sensitive areas along the east ridge from development.

Response: Through the proposed code amendments, the steeply sloped areas along the east ridge will be protected through the application of the Geologic Hazards Overlay Zone in OCMC 17.44, which limits development on slopes 25 to 35% and prohibits all development on slopes over 35%. The east ridge will be further protected through application of the proposed Low Impact Conservation Area standards, which limit development density and development area and require mitigation. (See proposed OCMC 17.10.070.C.) **The proposal is consistent with this Policy.**

Goal 6 Multi-modal Transportation

Provide multi-modal transportation links (such as bus routes, trails, bike- ways, etc.)

that are connected within the site as well as to the surrounding areas.

Response: The proposed map and code amendments will support the provision of multi-modal transportation links within the site and to surrounding areas at the time of development. The transportation network of major arterials and collectors within the BRCP area have been adopted in the City's Transportation System Plan (2013); the projects must be complete or completed by the developer at the time of development. Improvement of these major rights-of-way will meet green street standards with multimodal elements. The trails network, as part of the Trails Master Plan, will be required to be built prior to or as a condition of development as well. Bus routes will be planned with Tri-Met as part of ongoing coordination efforts. **The proposal is consistent with this Goal.**

Policy 6.1

Work with Tri-Met and stakeholders to provide bus service and other alternatives to the Concept Plan area.

Response: Bus service will be planned with Tri-Met as part of ongoing coordination efforts outside of the proposed map and code amendments. **The proposal is consistent with this Policy.**

Policy 6.2

As land use reviews and development occur prior to extension of bus service, ensure that the mix of land uses, density and design help retain transit as an attractive and feasible option in the future.

Response: The proposed map and code amendments support development of a mix of uses both across the district and within individual subdistricts that include employment, commercial and residential uses that can support future transit service. Minimum densities will be applied to residential development in the EMU and WMU subdistricts, at 7.0 units per acre and 17.4 units per acre respectively; any ground-floor residential uses in the MS subdistrict will also be required to meet a minimum density of 17.4 units per acre. Minimum FARs are also proposed for the MEV and MS subdistricts to guide intensive design supportive of future transit options. **The proposal is consistent with this Policy.**

Policy 6.3

Ensure that local street connectivity and off-street pedestrian routes link together into a highly connected pedestrian system that is safe, direct, convenient, and attractive to walking.

Response: The proposed map and code amendments will require local street connectivity and off-street pedestrian routes to be developed with all new development. OCMC 16.12, which applies to new subdivisions and site plan reviews, requires a maximum block length of 530 feet to maintain connectivity except in the CI zone, discourages cul-de-sacs and dead ends, and requires public off-street pedestrian and bicycle accessways when through streets cannot be provided; together these provisions provide for a highly connected pedestrian system. (See OCMC 16.12.025, 16.12.030, 16.12.032.) Additionally, development under the proposed map and code amendments will be required to reserve trail corridors supporting completion of the off-street trails network established in the Trails Master Plan. **The proposal is consistent with this Policy.**

Policy 6.4

The "walkability" of the Concept Plan area will be one of its distinctive qualities. The density of walking routes and connectivity should mirror the urban form – the higher the density and larger the building form, the "finer" the network of pedestrian connections.

Response: The proposed map and code amendments will require pedestrian connectivity that mirrors the urban form. A maximum block length of 530 feet applies in all proposed zones except the CI-zoned NEC subdistrict, where greater spacing between streets is appropriate for industrial campus development. (See OCMC 16.12.030.) Within the "finer" grained residential and mixed-use subdistricts, code standards to be applied through these proposed map amendments will also require provision of a well-marked, continuous and protected on-site pedestrian circulation system within development sites per OCMC 17.62.050.C. **The proposal is consistent with this Policy.**

Policy 6.5

Require trails to be provided consistent with the Concept Plan Circulation Framework.

Response: Development under the proposed map and code amendments will be required to reserve trail corridors supporting completion of the off-street trails network established in the Trails Master Plan. **The proposal is consistent with this Policy.**

Policy 6.6

Provide bike lanes on Beavercreek Road and all collector streets, except for Main Street. The City may consider off-street multi-use paths and similar measures in meeting this policy. Bike routes will be coordinated with the trails shown on the

Circulation Framework.

Response: Streets, including Beavercreek Road, will be built prior to or as a condition of development, and will be required to be constructed to the City's adopted green street standards that include bike lanes except on Glen Oak Road which will serve as the Main Street. Off-street multiuse paths may be developed along Center Parkway (Holly) within an expanded right-of-way as part of the South Central Open Space Network. **The proposal is consistent with this Policy.**

Goal 7 Safety Along Beavercreek Road

Implement design solutions along Beavercreek Road that promote pedestrian safety, control traffic speeds and access, and accommodate projected vehicular demand.

Response: The proposed map and code amendments will not affect the design of Beavercreek Road, which will be built as planned in the BRCP and the adopted TSP. **The proposal is consistent with this Goal.**

Policy 7.1

Design Beavercreek Road to be a green street boulevard that maximizes pedestrian safety.

Response: The proposed map and code amendments will not affect the design of Beavercreek Road, which will be built as planned in the BRCP and the adopted TSP as a green street boulevard. **The proposal is consistent with this Policy.**

Policy 7.2

Work with the County and State to establish posted speeds that are safe for pedestrians and reinforce the pedestrian-oriented character of the area.

Response: Future coordination with the County and the State about the posted speeds is outside of the scope of the proposed map and code amendments. **The proposal is consistent with this Policy.**

Policy 7.3

Control access along the east side of Beavercreek Road so that full access points are limited to the intersections shown on the Circulation Framework. Right in-Right-out access points may be considered as part of master plans or design review.

Response: The proposed map and code amendments will support limited access along the east side of Beavercreek Road. At the time of development, driveway spacing and access limitations will be applied to individual lots including standards that require a minimum of 175 feet per driveway along an arterial like Beavercreek Road, that limit access to one driveway per frontage, and that require access to be

provided from the lowest classification street. (See OCMC 16.12.035.) Requirements to develop an alley network in all subdistricts except the NEC will also limit access needs for individual lots. (See OCMC 16.12.025.) The City may adopt additional access limitations specific to Beavercreek Road. **The proposal is consistent with this Policy.**

Goal 8 Oregon City High School and Clackamas Community College

Promote connections and relationships with Oregon City High School and Clackamas Community College.

Response: Both OCHS and CCC were identified as stakeholders in this implementation project, and engaged through initial interviews and invitations to all public meetings throughout the project; OCHS hosted two public open houses on January 29 and April 9, 2019. Future implementation efforts will continue to engage OCHS and CCC. **The proposal is consistent with this Goal.**

Policy 8.1

Coordinate with OCHS and CCC when recruiting businesses and promoting sustainability. Within one year of adoption of the Concept Plan, the City will convene dialogue with OCHS, CCC and other relevant partners to identify target industries and economic development strategies that are compatible with the vision for the Concept Plan. Encourage curricula that are synergistic with employment and sustainability in the Concept Plan area.

Response: Both OCHS and CCC are members of the Beavercreek Employment Area Blue Ribbon Committee that includes city, county and regional representatives to discuss economic development strategies for the area incorporating the two institutions and portions of the BRCP area. (See https://www.orcity.org/sites/default/files/fileattachments/economic_development/page/11230/beavercreek_employment_area_-_marketing _and_recruitment_strategy.pdf) Future implementation efforts will continue to engage OCHS and CCC. **The proposal is consistent with this Policy.**

Policy 8.2

Prior to application submittal, require applicants to contact OCHS and CCC to inform them and obtain early comment for master plans and design review applications.

Response: The City will develop internal policies to ensure that OCHS and CCC are engaged at the time of pre-application conferences required before all subdivision,

master plan, and site plan review applications are submitted, to inform OCHS and CCC and provide opportunity for early comment. **The proposal is consistent with this Policy.**

Policy 8.3

Improving the level-of-service and investing in the Highway 213 corridor improves the freight mobility along Highway 213, which provides access to Beavercreek Road and the Concept Plan area. Protecting the corridor and intersections for freight furthers the City goal of providing living-wage employment opportunities in the educational, and research opportunities to be created with CCC and OCHS.

Response: Alternative Mobility Targets were adopted for Highway 213 in 2018, including the Highway 213 and Beavercreek Road intersection, which will support freight mobility along Highway 213 to support employment opportunities in the BRCP area. OCHS and CC are encouraged to continue to implement TDM strategies. **The proposal is consistent with this Policy.**

Goal 9 Unique Sense of Place

Have a unique sense of place created by the mix of uses, human scale design, and commitment to sustainability.

Response: The essence of the BRCP area is the mix of uses both across the district as a whole and within individual subdistricts, which will be fully implemented by the proposed map and code amendments to create the five subdistricts including mixed-use zoning for the MEV and MS subdistricts. Design elements implemented through the proposed code amendments include maximum square footages for individual business establishments, minimum FARs, and maximum setbacks in the MS and MEV subdistricts; pedestrian connectivity within sites, subdistricts, the district and beyond; and building design standards, as discussed elsewhere in this narrative. Sustainability will be integrated into the fabric of the district as discussed in response to Goal 2 and related policies, including sustainable infrastructure, mix of uses, natural resources protection, and sustainable building and site design elements for industrial development and multifamily development in the R-2 zoned WMU zone. **The proposal is consistent with this Goal.**

Policy 9.1

Utilize master plans and design review to ensure detailed and coordinated design. Allow flexibility in development standards and the configuration of land uses when they are consistent with the comprehensive plan, development code, and vision to create a complete and sustainable community.

Response: Under the proposed map and code amendments, new development will be reviewed through site plan design review, subdivision, and/or master plans. Development standards can be modified through minor and major variances if they are consistent with the comprehensive plan including the BRCP vision. (See OCMC 17.60.) The configuration of land uses will be established by the proposed map amendments and can be modified through future map amendments consistent with OCMC 17.68, though the range of uses allowed in each subdistrict through the proposed code amendments is intended to be flexible and potentially reduce the need for map amendments, such as the R-2 standards for small-scale commercial and mixed-use in the primarily residential EMU subdistrict. **The proposal is consistent with this Policy.**

Policy 9.2

Implement human scale design through building orientation, attractive streetscapes, building form/architecture that is matched to the purpose of the sub-district, location of parking, and other techniques. The design qualities of the community should mirror the urban form – the higher the density and larger the buildings, the higher the expectation for urban amenities and architectural details.

Response: Design elements implemented through the proposed code amendments that support human-scale design include maximum square footages for individual business establishments, minimum FARs, and maximum setbacks in the MS and MEV subdistricts; pedestrian connectivity within sites, subdistricts, the district and beyond; and requirements for parking to be located at the rear of sites served by alley access. The proposed code amendments also apply the building design standards in OCMC 17.62.055 for all development, except industrial development, requiring quality building materials, siting of structures along the front property line, buildings oriented towards the street, entryways, façade modulation and articulation, and fenestration. The proposed code amendments will support attractive streetscapes through both design standards for private development along the street, such as maximum setbacks and provisions for pedestrian plazas and outdoor café seating within the setbacks, and the green street standards for the public right-of-way development. **The proposal is consistent with this Policy.**

Policy 9.3

Density should generally transition from highest on the west to lowest in the eastern part of the site.

Response: Generally, the proposed map and code amendments support graduated density across the district from west to east. Density transitions from highest in the west along Beavercreek Road, with the R-2 zoning for the WMU subdistrict that

allows development up to 21.8 units an acre, transitioning to medium density at a maximum density of 8.7 units per acre for single-family detached homes in the east with the R-5 zoning for the EMU subdistrict. The density transitions to very low density on the eastern edge of the site within the Low Impact Conservation Area, limited to two units per acre. (See proposed OCMC 17.10.070.C.) **The proposal is consistent with this Policy.**

Policy 9.4

Promote compatibility with existing residential areas at the north and south end of the Concept Plan area. Transition to lower densities, setbacks, buffers and other techniques shall be used.

Response: The proposed code amendments support compatibility with existing residential areas to the north and south of the BRCP area by requiring buffers and setbacks. Under the proposed map and code amendments, the northern edge of the district is zoned CI and industrial development within the zone that is adjacent to residential is required to provide a 25-foot-wide buffer including landscaping, trees, berms, and fencing. (See proposed OCMC 17.37.060.D.) At the southern edge of the district, the proposed code requires a perimeter transition requiring larger 6,000 square foot lots restricted to single-family detached uses, a 40-foot setback from the edge of the district, and a combination of landscaping, trees and fencing. (See proposed OCMC 17.10.070.D.) **The proposal is consistent with this Policy.**

Goal 10 Ecological Health

Manage water resources on site to eliminate pollution to watersheds and lesson impact on municipal infrastructure by integrating ecological and man-made systems to maximize function, efficiency and health.

Response: The City has adopted the Stormwater and Grading Design Standards (2015) that emphasize low-impact development (LID) practices, which will be applied to new development within the BRCP area under the proposed map and code amendments. The Natural Resources Overlay District (NROD) in OCMC 17.49 will also be applied to stream corridors and riparian habitat through the proposed map and code amendments to protect water resources on site. **The proposal is consistent with this Goal.**

Policy 10.1

Utilize low impact development practices and stormwater system designs that mimic natural hydrologic processes, minimize impacts to natural resources and eliminate pollution to watersheds.

Response: Since the BRCP was initially written in 2008, the City has adopted the Stormwater and Grading Design Standards (2015), emphasize low-impact development (LID) practices, source controls for higher pollutant generating activities, erosion prevention and sediment controls, and operation and maintenance practices designed to properly manage stormwater runoff and protect our water resources. Some of the permitted LID techniques, some of which mimic natural hydrologic processes, include porous pavement, green roofs, filtration planters, infiltration planters, swales, and rain gardens. (See https://www.orcity.org/publicworks/stormwater-and-grading-design-standards) **The proposal is consistent with this Policy.**

Policy 10.2

Prepare the Environmentally Sensitive Resource Area overlay to protect, conserve and enhance natural areas identified on the Concept Plan. Apply low-density base zoning that allows property owners to cluster density outside the ESRA and transfer to other sites.

Response: Areas identified within the Environmentally Sensitive Resource Area will be protected by a variety of strategies through the proposed map and code amendments. Most importantly, the Natural Resources Overlay District (NROD) in OCMC 17.49 will be applied to stream corridors and riparian habitat, including Thimble Creek on the eastern edge of the site. The Geologic Hazards Overlay District will be applied to steep slopes per OCMC 17.44, limiting development on slopes 25 to 35% to two units per acre and prohibiting development on slopes above 35%. The key ESRAs identified on page 1 of the BRCP are generally protected through the combination of these two overlays, however, there are minor discrepancies in the extent of individual nodes. In 2008 when the BRCP was being drafted, there was discussion that upland habitat areas could be protected through the NROD as well, however, subsequent development of the NROD standards elected to exclude upland habitat areas because there is no mechanism for such in Metro's Title 13. The exclusion of the upland habitat areas slightly reduces the extent of some of the identified ESRA nodes, but the NROD and geologic hazard overlays together protect the core of each resource area. The NROD includes density transfer provisions in OCMC 17.49.240. **The proposal is consistent with this Policy.**

OREGON CITY

Community Development – Planning

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Oregon City Municipal Code
Beavercreek Road Concept Plan Implementing Code
June 7, 2019 Draft

Chapter 16.08, Land Divisions - Process and Standards

16.08.025 - Preliminary plat—Required information.

A. Site Plan. A detailed site development plan drawn to scale by a licensed professional based on an existing conditions plan drawn by a licensed surveyor. The site plan shall include the location and dimensions of lots, streets, existing and proposed street names, pedestrian ways, transit stops, common areas, parks, trails and open space, building envelopes and setbacks, all existing and proposed utilities and improvements including sanitary sewer, stormwater and water facilities, total impervious surface created (including streets, sidewalks, etc.), all areas designated as being within an overlay district and an indication of existing and proposed land uses for the site. (…)

16.08.040 – Park and open space requirements.

Where a proposed park, open space, playground, public facility, or other public use shown in a plan adopted by the city is located in whole or in part in a land division, the City may require the dedication or reservation of this area on the final plat for the partition or subdivision.

16.08.042 - Additional Public Park Requirements in Beavercreek Road Concept Plan area.

A. Each development within the Beavercreek Road Concept Plan area that includes residential development must provide for land for neighborhood parks which meets the requirements of this section.

B. The minimum amount of land in acres dedicated for a park shall be calculated according to the following calculation: (2.6 persons per dwelling units) x (total number of dwelling units proposed in the development) x (8.0 acres) / (1,000 persons).

C. The entire acreage must be dedicated prior to approval or as part of the final plat or site plan development approval for the first phase of development.

D. If a larger area for a neighborhood park is proposed than is required based on the per-unit calculation described in subsection (A), the City must reimburse the applicant for the value of the amount of land that exceeds the required dedication based on the fee-in-lieu formula expressed in subsection (E)(1).

E. The City may accept a fee-in-lieu as an alternative to this dedication at its discretion or may require a fee-in-lieu if a suitable site meeting the criteria described in subsection (F) of these provisions is not available with the development site. The calculation of the fee-in-lieu or other monetary contribution must meet the following standards.

1. The amount of the fee in lieu or other monetary contribution is set in dollars per acre of required dedication and is equivalent to the appraised cost of land within the development, as provided by a certified appraiser chosen by the City and with the assumption that zoning and other land use entitlement are in place.
2. The fee-in-lieu or other monetary contribution must be paid prior to approval of the final plat or development approval for each phase of development.

F. Neighborhood park sites proposed for dedication must meet the following criteria.

1. Located within the South Central Open Space Network as shown in Figure 16.08.042-1.

   Figure 16.08.042-1 (To be provided, will show the South Central Open Space Network as mapped on the Development Constraints Map.)

2. Met either of the following standards:

   a. Pearl standard. (*To be developed with Parks input.)*

   b. String standard. (*To be developed with Parks input.)*

Chapter 17.10, R-5 Medium Density Residential District (East Mixed-Use Neighborhood subdistrict)

17.10.070 – Additional Standards for Beavercreek Road Concept Plan Area

A. Applicability. This section applies to all development in the R-5 district within the Beavercreek Road Concept Plan area.

B. Relationship of Standards. These standards apply in addition to and supersede the standards of the R-5 zone within the Beavercreek Road Concept Plan area. In the event of a conflict, the standards of this section control.

C. Low-Impact Conservation Area. Between the west edge of the designated Natural Resources Overlay District extent required along Thimble Creek extending east to the 490-foot elevation (MSL), additional standards apply to create a low-impact conservation area as depicted in Figure 17.10.070-1 and preserve views to adjacent natural areas.

Figure 17.10.070-1 Extent of Low-Impact Conservation Area (To be provided based on Concept Plan.)

1. The standards of this section apply in addition to the requirements of OCMC 17.44, US—Geologic Hazards, if applicable. In the event of a conflict, the more restrictive shall apply.
2. Development intensity shall be limited as follows:

   a. The maximum residential density shall be limited to two dwelling units per acre;

b. An individual lot or parcel shall have a disturbance area of no more than fifty percent or three thousand square feet of the surface area, whichever is smaller, graded or stripped of vegetation or covered with structures or impermeable surfaces; and

c. No cut into a slope for the placement of a housing unit shall exceed a maximum vertical height of fifteen feet for the individual lot or parcel.

3. Views shall be preserved through one of the following methods:

a. Individual lots shall have minimum 25-foot side yard setbacks on both sides to create view corridors a minimum of 50 feet wide between houses. Nothing shall be placed within the side yard setback that exceeds the 490-foot elevation with the exception of trees and vegetation that are existing or planted as part of mitigation required in subsection (4).

b. Alternatively, residential lots may be arranged so that a minimum 700-foot wide view corridor is created along the 490-foot elevation line extending in the direction of Thimble Creek. Nothing shall be placed in the view corridor that exceeds the 490-foot elevation with the exception of trees and vegetation that are existing or planted as part of mitigation required in subsection (4). Residential lots outside of this view corridor shall be subject to the side yard setbacks in the R-5 zone.

4. Open space restoration shall be required to mitigate development impacts. Restoration shall occur at a one-to-one ratio of restoration area to proposed disturbance area, and shall meet all of the following standards:

a. All trees, shrubs and ground cover shall be selected from the Oregon City Native Plant List.

b. All invasive species shall be removed to the extent practicable.

c. The restoration requirement shall be calculated based on the size of the disturbance area. Native trees and shrubs are required to be planted at a rate of one tree and five shrubs per every one hundred square feet of disturbance area, rounded to the nearest whole number of trees and shrubs. Bare ground must be planted or seeded with native grasses or herbs. Non-native sterile wheat grass may also be planted or seeded, in equal or lesser proportion to the native grasses or herbs.

d. No initial plantings may be shorter than twelve inches in height.

e. Trees shall be planted at average intervals of seven feet on center. Shrubs may be planted in single-species groups of no more than four plants, with clusters planted on average between eight and ten feet on center.

f. Shrubs shall consist of at least three different species. If twenty trees or more are planted, no more than one-third of the trees may be of the same genus.

5. Alternative standards for the low-impact conservation area may be proposed as part of a Master Plan per OCMC 17.65, provided it is consistent with the goals of the adopted Beavercreek Road Concept Plan.

D. Southern Perimeter Transition. Along the southern boundary of the Beavercreek Road Concept Plan area between Beavercreek Road and the eastern-most point of Tax Lot 00316, located on Clackamas County Map #32E15A, additional standards apply to create a perimeter transition.

1. For all lots adjacent to the southern boundary and within 20 feet of the southern boundary, uses shall be limited to single-family detached residential and parks, trails and open space.
2. For all lots adjacent to the southern boundary and within 20 feet of the southern boundary, minimum lot size for residential uses shall be 6,000 square feet.
3. All structures shall be set back a minimum of 40 feet from the southern boundary for all lots adjacent to the southern boundary and within 20 feet of the southern boundary.
4. Within the 40-foot wide setback, a combination of landscaping and screening shall be provided to buffer the perimeter. The landscaping and screening shall meet one of the two standards:
    a. Utilize existing vegetation in compliance with OCMC 17.41 resulting in preservation or replanting of a minimum of 12 inches of tree diameter inches per lot with trees spaced an average of one tree for every 30 linear feet along the southern property line. These trees may be located on the residential lots or an abutting tract created for tree preservation consistent with OCMC 17.41.050.B or other similar landscaping or open space purpose.
    b. Provide a combination of landscaping and screening to include:
        (i) A minimum of 12 inches of tree diameter inches per lot, or a minimum of an average of one tree with minimum caliper of two inches DBH for every 30 linear feet along the southern property line, whichever is greater; and
        (ii) A minimum six-foot tall, decorative, sight-obscuring fence or wall running parallel to the southern boundary. The fence or wall shall be constructed of wood, stone, rock, or brick. Other durable materials may be substituted with Planning Director's approval. Chainlink fencing with slats shall be not allowed to satisfy this standard.
5. An alternative southern perimeter transition may be proposed as part of a Master Plan per OCMC 17.65, provided it is consistent with the goals of the adopted Beavercreek Road Concept Plan.

Chapter 17.12, R-2 High Density Residential District (West Mixed-Use Neighborhood subdistrict)

17.12.060 – Additional Standards for Beavercreek Road Concept Plan Area

A. Applicability. This section applies to all development in the R-2 district within the Beavercreek Road Concept Plan area.

B. Relationship of Standards. These standards apply in addition to and supersede the standards of the R-2 zone within the Beavercreek Road Concept Plan area. In the event of a conflict, the standards of this section control.

C. Uses.

1. Live/work dwellings are a permitted use.
2. As part of a master plan when authorized by and in accordance with the standards contained in OCMC 17.65, up to five thousand square feet of commercial space as a stand-alone building or part of a larger mixed-use building, to be used for:
    a. Restaurants, eating and drinking establishments without a drive through;

b. Services, including personal, professional, educational and financial services; laundry and dry-cleaning; or

c. Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies, specialty stores, and similar.

D. Sustainability density bonus. The maximum net density allowed in 17.12.050.B may be increased by up to twenty percent, or a maximum net density of 26.2 du/acre, for projects incorporating the following sustainability features. For every feature provided below, net density may be increased by up to five percent, with a maximum twenty percent bonus available.

1. A vegetated ecoroof for a minimum of thirty percent of the total roof surface.
2. For a minimum of seventy-five percent of the total roof surface, a white roof with a Solar Reflectance Index (SRI) of 78 or higher if the roof has a 3/12 roof pitch or less, or SRI of 29 or higher if the roof has a roof pitch greater than 3/12.
3. A system that collects rainwater for reuse on-site (e.g., site irrigation) designed to capture an amount of rainwater equivalent to the amount of stormwater anticipated to be generated by 50% of the total roof surface.
4. An integrated solar panel system for a minimum of thirty percent of the total roof or building surface.
5. Orientation of the long axis of the building within thirty degrees of the true east-west axis, with unobstructed solar access to the south wall and roof.
6. Windows located to take advantage of passive solar collection and include architectural shading devices (such as window overhangs) that reduce summer heat gain while encouraging passive solar heating in the winter.
7. Fifty percent or more of landscaped area covered by native plant species selected from the Oregon City Native Plant List.
8. Provision of pedestal or wall-mounted Level 2, two hundred forty-volt electric vehicle chargers, or similar alternative fueling stations as approved by the planning director, at a minimum ratio of one station per fifty vehicle parking spaces up to a maximum of five such stations.
9. Building energy efficiency measures that will reduce energy consumption by thirty percent based on HERS rating for building, including efficient lighting and appliances, efficient hot water systems, solar orientation or solar water heating, solar photovoltaic panels, geothermal, and offsetting energy consumption with alternative energy.
10. Use of Forest Stewardship Council certified wood Reclaimed Wood for a minimum of thirty percent of wood products used in the site development.
11. Permeable paving, which may include porous concrete, permeable pavers, or other pervious materials as approved by the city engineer, for a minimum of thirty percent of all paved surfaces.
12. Buildings LEED-certified by the U.S. Green Building Council at any level shall be allowed to increase net density by the full twenty percent.
13. Or an alternative the meets or exceeds the intent of the above code as approved by the Community Development Director through a Type II review.

Chapter 17.24, NC Neighborhood Commercial District (Main Street subdistrict)

17.24.050 – Additional Standards for Beavercreek Road Concept Plan Area

A. Applicability. This section applies to all development in the NC district within the Beavercreek Road Concept Plan area.

B. Relationship of Standards. These standards apply in addition to and supersede the standards of the NC zone within the Beavercreek Road Concept Plan area. In the event of a conflict, the standards of this section control.

C. Uses.

1. All uses permitted per OCMC 17.24.020.A and B, including grocery stores, are limited to a maximum footprint for a stand alone building with a single store or multiple buildings with the same business not to exceed ten thousand square feet, unless otherwise restricted in this chapter.
2. Residential uses are permitted subject to limitations in OCMC 17.24.050.E, and are not subject to OCMC 17.29.020.M, OCMC 17.29.020.N, and OCMC 17.24.020.D.
3. Artisan and specialty goods production is permitted, constituting small-scale businesses that manufacture artisan goods or specialty foods and makes them available for purchase and/or consumption onsite, with an emphasis on direct sales rather than the wholesale market. Examples include: candy, fruit and vegetable preserving and specialty foods, bakeries and tortilla manufacturing; artisan leather, glass, cutlery, hand tools, wood, paper, ceramic, textile and yarn products; microbreweries, microdistilleries, and wineries. All uses shall provide either:
    a. A public viewing area that includes windows or glass doors covering at least twenty-five percent of the front of the building face abutting the street or indoor wall, allowing direct views of manufacturing; or
    b. A customer service space that includes a showroom, tasting room, restaurant, or retail space.
4. Drive-throughs are prohibited.
5. Gas stations are prohibited.

D. Dimensional standards.

1. Maximum building height shall be sixty feet or five stories, whichever is less.
2. Minimum building height shall be twenty-five feet or two stories, whichever is less, except for accessory structures or buildings under one thousand square feet.
3. Maximum corner side yard setback abutting a street shall be five feet.
4. Minimum floor area ratio (FAR) shall be 0.5.
    a. Required minimum FARs shall be calculated on a project-by-project basis and may include multiple contiguous blocks. In mixed-use developments, residential floor space will be included in the calculations of floor area ratio to determine conformance with minimum FAR.

b. An individual phase of a project shall be permitted to develop below the required minimum FAR provided the applicant demonstrates, through covenants applied to the remainder of the site or project or through other binding legal mechanism, that the required FAR for the project will be achieved at project build out.

5. Minimum required landscaping: Ten percent. Required landscaping areas may include:

a. Landscaping within a parking lot.

b. Planter boxes.

c. Ecoroofs.

d. Paved courtyard or plaza with at least twenty-five percent of the area used for landscaping, planter boxes, and/or water features including shade trees planted at the ratio of one tree for every 500 square feet of urban plaza area.

E. Residential Uses. Residential uses, excluding live/work dwellings, are subject to the following additional standards:

1. All residential uses shall be proposed along with any nonresidential use allowed in the NC district in a single development application.

2. All ground-floor residential uses, with the exception of entrances for upper-story residential uses, shall be set back a minimum of 150 feet from the property line along Glen Oak Road.

3. Ground-floor residential building square footage shall not exceed fifty percent of the ground-floor nonresidential building square footage onsite.

4. Ground-floor residential uses shall achieve a minimum net density of 17.4 units per acre, with no maximum net density.

5. Any new lots proposed for exclusive residential use shall meet the minimum lot size and setbacks for the R-2 zone for the proposed residential use type.

6. Upper-story residential uses are permitted with no limitations.

F. Site design standards.

1. In lieu of complying with OCMC 17.62.050.B.1, parking areas shall be located behind the building façade that is closest to the street or below buildings and shall not be located on the sides of buildings or between the street and the building façade that is closest to the street.

Chapter 17.29, MUC Mixed-Use Corridor District (Mixed Employment Village subdistrict)

17.29.080 – Additional Standards for Beavercreek Road Concept Plan Area

A. Applicability. This section applies to all development in the MUC-2 district within the Beavercreek Road Concept Plan area.

B. Relationship of Standards. These standards apply in addition to and supersede the standards of the MUC-2 zone within the Beavercreek Road Concept Plan area. In the event of a conflict, the standards of this section control.

C. Uses.

1. Light industrial uses limited to the design, light manufacturing, processing, assembly, packaging, fabrication and treatment of products made from previously prepared or semi-finished materials are permitted.
2. The following permitted uses, alone or in combination, shall not exceed twenty percent of the total gross floor area of all of the other permitted and conditional uses within the development site. The total gross floor area of two or more buildings may be used, even if the buildings are not all on the same parcel or owned by the same property owner, as long as they are part of the same development site, as determined by the community development director.
    a. Restaurants, eating and drinking establishments;
    b. Services, including personal, professional, educational and financial services; laundry and dry-cleaning;
    c. Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies, specialty stores, marijuana, and similar, provided the maximum footprint for a stand-alone building with a single store does not exceed twenty thousand square feet; and
    d. Grocery stores provided the maximum footprint for a stand-alone building does not exceed forty thousand square feet.
3. Drive-throughs are prohibited.
4. Gas stations are prohibited.
5. Bed and breakfast and other lodging facilities for up to ten guests per night are a conditional use.
6. Tax Lot 00800, located on Clackamas County Map #32E10C has a special provision to allow the multifamily residential use permitted as of (Ordinance effective date) as a permitted use. This property may only maintain and expand the current use.

D. Dimensional standards.
1. Minimum floor area ratio (FAR) shall be 0.35.
2. Maximum allowed setback for corner side yard abutting street shall be five feet.

E. Residential uses. All residential uses, except live/work units, are limited to upper stories only, and may only be proposed as part of a single development application incorporating nonresidential uses allowed in the MUC-2 district on the ground floor.

Chapter 17.37, CI Campus Institutional District (North Employment Campus subdistrict)

17.37.060 – Additional Standards for Beavercreek Road Concept Plan Area

A. Applicability. This section applies to all development in the CI district within the Beavercreek Road Concept Plan area.

B. Relationship of Standards. These standards apply in addition to and supersede the standards of the CI zone within the Beavercreek Road Concept Plan area. In the event of a conflict, the standards of this section control.

C. Uses.

1. The following permitted use supersedes the use allowed in OCMC 17.37.020.L. Retail sales and services, including but not limited to eating establishments for employees (i.e. a cafe or sandwich shop) or retail sales of marijuana pursuant to OCMC 17.54.110, located in a single building or in multiple buildings that are part of the same development shall be limited to a maximum of five thousand square feet in a single outlet or twenty thousand square feet in multiple outlets that are part of the same development project.
2. The following permitted use supersedes the use allowed in OCMC 17.37.020.M. Retail and professional services including but not limited to financial, insurance, real estate and legal offices limited to a maximum of five thousand square feet in a single outlet or twenty thousand square feet in multiple outlets that are part of the same development project. Financial institutions shall primarily serve the needs of businesses and employees within the development, and drive-throughs are prohibited.
3. Offices as an accessory to a permitted use are permitted.
4. Parks, trails, urban agriculture and community garden uses are permitted.
5. Distribution and warehousing are prohibited.
6. Tax Lots 00300, 00301, 00302, 00303, 00400 and 00401, located on Clackamas County Map #32E10C have a special provision to allow single-family detached residential use as a permitted use. This property may only maintain and expand the current use.

D. Buffer zone treatment required in OCMC 17.37.040.D shall include:

1. Landscaping shall be installed to provide screening of views of parking, loading and vehicle maneuvering areas, refuse/recycling collection areas, outdoor storage, and building façades. Buffer zone treatment may substitute for perimeter parking lot landscaping required per OCMC 17.52.060.C. Landscaping shall include:
   a Trees a minimum of two caliper inches dbh planted on average 30 feet on center. Existing mature vegetation may be used to meet this standard if it achieves a similar level of screening as determined by the Planning Director.
   b An evergreen hedge screen of thirty to forty-two inches high or shrubs spaced no more than 4 four feet apart on average.
   c Ground cover plants, which includes grasses covering all landscaping areas. Mulch (as a ground cover) shall only be allowed underneath plants at full growth and within two feet of the base of a tree and is not a substitute for ground cover.
2. Buffer shall incorporate a berm no less than three feet in height above the existing grade, constructed with a slope no steeper than 3:1 on all sides. The berm shall be planted with plant materials to prevent erosion.
3. A minimum six-foot tall, decorative, sight-obscuring fence or wall. The fence or wall shall be constructed of materials commonly used in the construction of fences and walls, such as wood, stone, rock, brick, or other durable materials. Chainlink fencing with slats shall be not allowed to satisfy this standard.

E. Outdoor storage permitted per OCMC 17.37.050.D shall be limited to a maximum of twenty-five percent of the net developable area.

F. Power line corridors. A distinct feature of this district is the power line corridors north of Loder Road that define open corridors.

1. Within the power line corridors, a minimum 30-foot wide open space and public access easement shall be granted to the City. The easement shall run parallel to the power line corridor and align with easements on abutting properties to create a continuous corridor.
2. The easement may be shown on the final plat or recorded as a separate easement document. In either case, the easement must be recorded prior to issuance of a certificate of occupancy.
3. Open spaces within the power line corridors, including the open space easements, may be counted as landscaping satisfying the requirements of OCMC 17.62.050.A.
4. Additional uses encouraged in the power line corridors include community gardens, urban agriculture, stormwater and water quality features, plant nurseries, and solar farms.

G. Sustainability features. Each development must incorporate six of the following sustainability features.

1. A vegetated ecoroof for stormwater management. An ecoroof covering twenty to forty percent of the total roof area shall count as one feature, and a roof covering more than forty percent of the total roof area shall count as two features.
2. A white roof with a Solar Reflectance Index (SRI) of 78 or higher if the roof has a 3/12 roof pitch or less, or SRI of 29 or higher if the roof has a roof pitch greater than 3/12 covering a minimum of seventy-five percent of the total roof area.
3. A system that collects rainwater for reuse on-site (e.g., site irrigation) designed to capture an amount of rainwater equivalent to the amount of stormwater anticipated to be generated by 50% of the total roof surface.
4. An integrated solar panel system mounted on the roof or anywhere on site. A solar system with surface area equivalent to a minimum of twenty to forty percent of the total roof area shall count as one feature, and a solar system with surface area equivalent to forty percent or more of the total roof area shall count as two features.
5. Use of native plant species selected from the Oregon City Native Plant List. Native plantings that cover twenty to thirty percent of the total landscaped area shall count as one feature, and plantings that cover thirty percent or more of the total landscaped area shall count as two features.
6. Provision of pedestal or wall-mounted Level 2, two hundred forty-volt electric vehicle chargers, or similar alternative fueling stations as approved by the planning director, at a minimum ratio of one station per fifty vehicle parking spaces up to a maximum of five such stations.
7. Permeable paving, which may include porous concrete, permeable pavers, or other pervious materials as approved by the city engineer. Permeable paving totaling twenty to forty percent of all paved surfaces shall count as one feature, and permeable paving of forty percent or more of all paved surfaces shall count as two features.
8. Buildings LEED-certified by the U.S. Green Building Council at any level shall be counted as three features.
9. Or an alternative the meets or exceeds the intent of the above code as approved by the Community Development Director through a Type II review.

Chapter 17.62 Site Plan and Design Review

17.62.058 - Additional Public Park Requirements in Beavercreek Road Concept Plan area.

A. Each development within the Beavercreek Road Concept Plan area that includes residential development must provide for land for neighborhood parks which meets the requirements of this section.

B. The amount of land in acres dedicated for a park shall equal at least the following calculation: (2.6 persons per dwelling units) x (total number of dwelling units proposed in the development) x (8.0 acres) / (1,000 persons).

C. The entire acreage must be dedicated prior to approval or as part of the site plan development approval for the first phase of development.

D. If a larger area for a neighborhood park is proposed than is required based on the per-unit calculation described in subsection (A), the City must reimburse the applicant for the value of the amount of land that exceeds the required dedication based on the fee-in-lieu formula expressed in subsection (E)(1).

E. The Planning Director may accept a fee-in-lieu as an alternative to this dedication at its discretion or may require a fee-in-lieu if a suitable site meeting the criteria described in subsection (F) of these provisions is not available with the development site. The calculation of the fee-in-lieu or other monetary contribution must meet the following standards.

1. The amount of the fee in lieu or other monetary contribution is set in dollars per acre of required dedication and is equivalent to the appraised cost of land within the development site, as provided by a certified appraiser chosen by the City and with the assumption that zoning and other land use entitlement are in place.
2. The fee-in-lieu or other monetary contribution must be paid prior to approval of the final development approval for each phase of development.

F. Neighborhood park sites proposed for dedication must meet the following criteria.

1. Located within the South Central Open Space Network as shown in Figure 16.08.042-1.

   Figure 17.62.058-1 (Same as proposed in OCMC 16.08.042.)

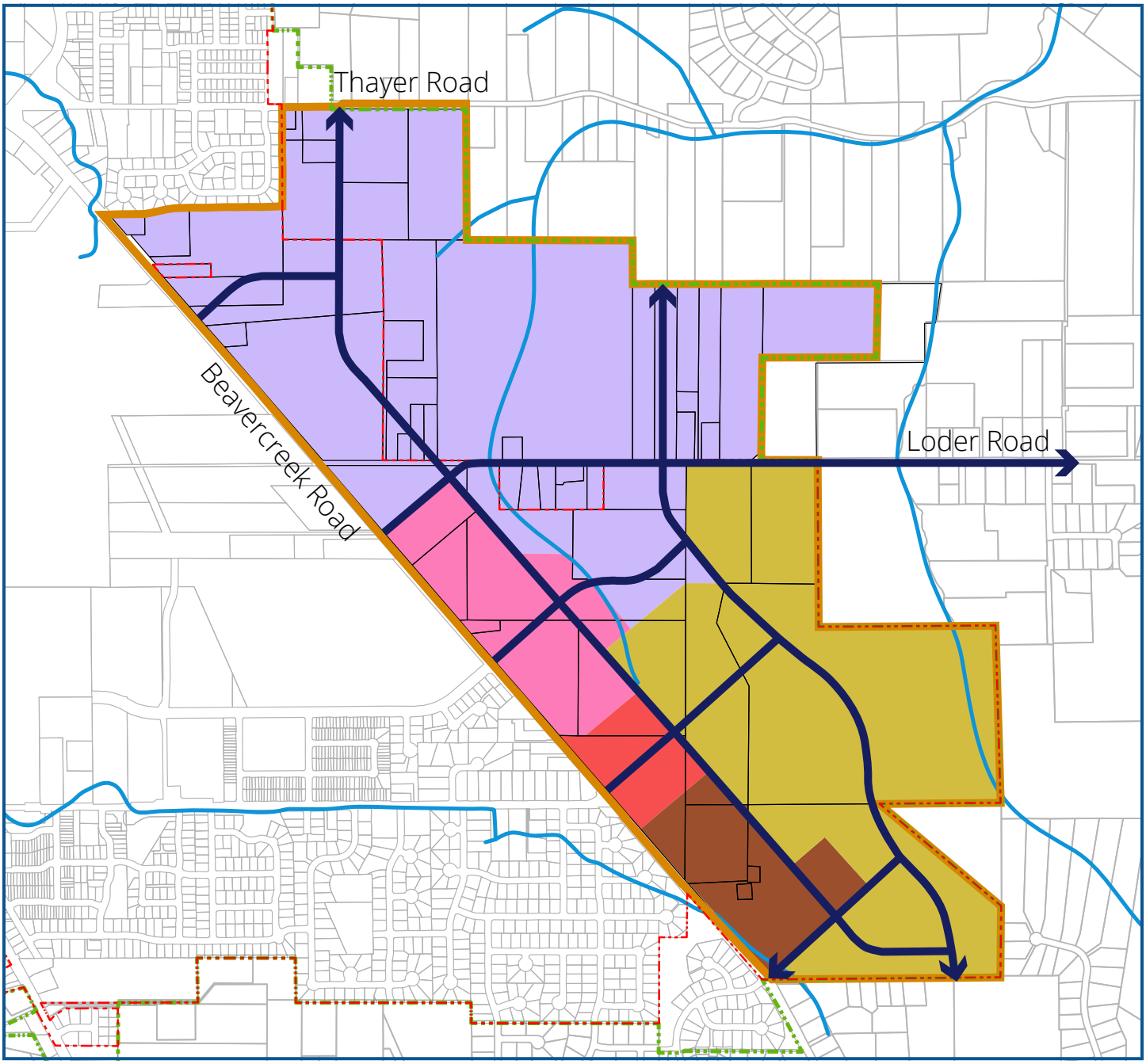
2. Met either of the following standards:

   a. Pearl standard. (*To be developed.)*

   b. String standard. *(To be developed.)*

Beavercreek Road Concept Plan

Proposed Zoning and Comprehensive Plan Designations



Legend

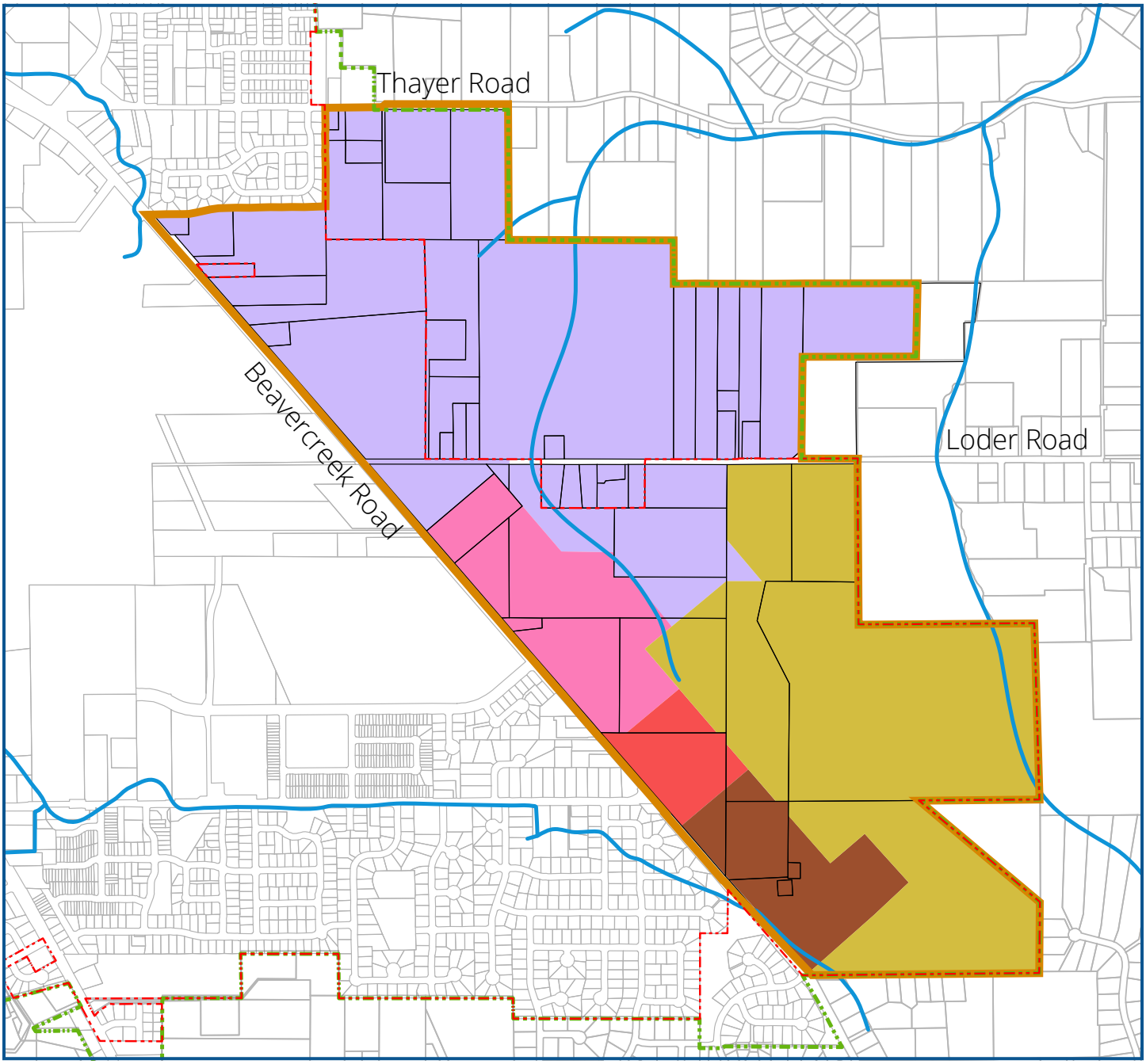
N

0′ 1,200′ 2,400′

BRCP Subdistrict	Comp Plan Designation	Zoning Designation		
West Mixed Use Neighborhood	High Density Residential	High Density Residential	R-2	BRCP Boundary
East Mixed Use Neighborhood	Medium Density Residential	Medium Density Residential	R-5	Urban Growth Boundary
Main Street	Mixed Use Corridor	Neighborhood Commercial	NC	City Limits
Mixed Employment Village	Mixed Use Corridor	Mixed Use Corridor	MUC-2	Future Road Connections
North Employment Campus	Industrial	Campus Industrial	CI	Streams

Beavercreek Road Concept Plan

Proposed Zoning and Comprehensive Plan Designations



Legend

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0′ 1,200′ 2,400′

BRCP Subdistrict	Comp Plan Designation	Zoning Designation		
West Mixed Use Neighborhood	High Density Residential	High Density Residential	R-2	BRCP Boundary
East Mixed Use Neighborhood	Medium Density Residential	Medium Density Residential	R-5	Urban Growth Boundary
Main Street	Mixed Use Corridor	Neighborhood Commercial	NC	City Limits
Mixed Employment Village	Mixed Use Corridor	Mixed Use Corridor	MUC-2	Future Road Connections
North Employment Campus	Industrial	Campus Industrial	CI	Streams

MEMO

Date: June 7, 2019

To: Laura Terway & Christina Robertson-Gardiner, City of Oregon City

From: Elizabeth Decker, JET Planning

Subject: Beavercreek Road Concept Plan Implementing Zoning Code

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Overview: Oregon City aims to further implementation of the Beavercreek Road Concept Plan (BRCP) through comprehensive plan designation and zone mapping, and development code amendments, to complement the public vision, infrastructure, and economic development measures that have already been completed or planned east of Beavercreek Road generally between Thayer Road and Old Acres Lane. Development of the 453-acre BRCP area is intended to create around 1,000 housing units and up to 5,000 family-wage jobs as part of a complete and sustainable community.

The overall strategy for implementing code is to use existing zones, rather than create a Beavercreek Road area-specific overlay. The practice has been used to implement the City's other two concept plans. Several of the implementing zones proposed here were developed for concept plan areas, including the Neighborhood Commercial and the Residential Medium Density R-5 zone. Proposed zoning districts for each concept plan subdistrict include:

Concept Plan Subdistrict	*Zone*
North Employment Campus	Campus Institutional (CI)
Mixed Employment Village	Mixed-Use Corridor (MUC-2)
Main Street	Neighborhood Commercial (NC)
West Mixed-Use Neighborhood	High-Density Residential (R-2)
East Mixed-Use Neighborhood	Medium-Density Residential (R-5)
Environmentally Sensitive Restoration Area	Natural Resources Overlay District (NROD) Geological Hazard Overlay District (GHOD)

This memo provides a short introduction to the draft code amendments to implement the Concept Plan provisions. All of the base zone standards apply, in addition to the proposed code standards specific to each subdistrict described

below. Note that the proposed amendments incorporate the most recent code language from the Equitable Housing and other development code amendments currently under review by the City Commission.

OCMC 16.08, Land Divisions – Process and Standards

- Proposed code amendments include additional public park requirements or fee-in-lieu option to ensure land for the South Central Open Space Network is reserved and dedicated to the city at the time of residential subdivisions. This is expected to largely apply to development in the R-5 district.

OCMC 17.10, R-5 Medium Density Residential District (East Mixed-Use Neighborhood subdistrict)

- No changes are proposed to the mix of uses or dimensional standards in the zone beyond those proposed in the Equitable Housing code amendments.
- Standards for the Low-Impact Conservation Area implement the plan goals for the area upslope of Thimble Creek, on the eastern edge of the Beavercreek Road district. The proposed standards limit development to two units per acre, require open space preservation and restoration, and require view corridors to preserve views.
- A 40-foot perimeter buffer is proposed along the southern edge of the district including landscaping, setbacks and fencing, to manage the transition to lower-density residential development outside City limits along Old Acres Lane to the south.

OCMC 17.12, R-2 High Density Residential District (West Mixed-Use Neighborhood subdistrict)

- Allows additional uses consistent with the Concept Plan include live/work dwellings and limited commercial/mixed-use spaces.
- Provides up to a 20% density bonus for development incorporating sustainability features.
- Additional changes in 17.62 add requirement for additional public park dedication or fee-in-lieu, consistent with requirement for new subdivisions.

OCMC 17.24, MC Neighborhood Commercial District (Main Street subdistrict)

- Limits uses to a 10,000 SF building footprint to encourage pedestrian-scale, main street businesses. Limits residential uses to 50% of the project floor area, and prohibits ground-floor residential uses within 150 feet of Glen Oak Road (which will be the "main street.") Adds a new use category for artisan and specialty goods production to allow limited manufacturing type uses.

- Increase dimensional standards to match scale proposed in the Concept Plan, including a five-story height limit and 0.5 FAR minimum.
- Improves building presence and interaction along the street by requiring parking to be located behind building facades.

OCMC 17.29, MUC Mixed-Use Corridor District (Mixed Employment Village subdistrict)

- Light industrial uses are permitted to implement the employment aspect of the vision for this subdistrict. Retail and service uses, including food service, are limited to 20% of a site to maintain the focus on employment uses generating family-wage jobs. Residential uses are limited to upper stories only.
- One parcel with an in-progress residential development is permitted outright, to avoid creating a nonconforming use.
- An additional dimensional standard implements a minimum 0.35 FAR for new development to ensure efficient use of land.

OCMC 17.31, CI Campus Institutional District (North Employment Campus subdistrict)

- Retail and professional service uses are limited consistent with Metro Title 4 requirements to preserve land for industrial uses. Offices are permitted consistent with uses outlined in the Concept Plan, whereas distribution and warehouse uses are prohibited because they create relatively few jobs per acre inconsistent with the plan goals.
- Several parcels with existing single-family residential development are permitted outright, to avoid creating nonconforming uses. (These parcels are outside of Title 4 lands, so there is no conflict with employment requirements.)
- Additional standards require landscaping, berms and fences within the required 25-foot transition area between industrial and residential uses.
- Outdoor storage is limited to a maximum of 25% of the developable area to avoid inefficient use of land that does not support employment plan goals.
- A minimum 30-foot open space and trail corridor is required along the powerline corridor. Additional parks, trails, urban agriculture and community garden uses are permitted consistent with the plan goals for uses within the powerline easement.
- Sustainable development features are required for all development to implement the plan's sustainability goals.

OCMC 17.44, US – Geologic Hazards and OCMC 17.49 – Natural Resources Overlay District

- No changes are proposed to the geologic hazard or NROD standards for this district; resource areas within the concept plan area will be protected consistent with existing standards.

OCMC 17.62, Site Plan and Design Review

- Proposed code amendments include additional public park requirements or fee-in-lieu option to ensure land for the South Central Open Space Network is reserved and dedicated to the city at the time of residential subdivisions. This is intended to apply to any residential development in the R-2 or the mixed-use districts that does not get developed through subdivision.

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MEMORANDUM

To: Christina Robertson Gardiner, AICP
Planner
City of Oregon City
698 Warner Parrott Rd
Oregon City, Oregon 97045

From: Steve Faust, AICP
Project Manager

Date: June 7, 2019

Project Name: Beavercreek Road Concept Plan Implementation
Project No: 18510
RE: BRCP Land Use Map Changes

The City of Oregon City (City) has initiated a project to update the Oregon City Comprehensive Plan Map, Zoning Map and Municipal Code to allow planned housing and mixed-use development to occur in the 2008 Beavercreek Road Concept Plan (BRCP) area. Updates will apply zoning and map designations for properties within the BRCP area. The City, through a grant from the Oregon Department of Land Conservation and Development, has contracted with 3J Consulting to assist with this effort.

As part of the BRCP Implementation project, 3J Consulting has been tasked with applying and mapping zoning districts to implement the land use categories in the Concept Plan Map found on page 3 of the Beavercreek Road Concept Plan (Attachment A).

An initial Land Use Map approximating the lines on the 2008 Concept Plan Map was prepared on April 9, 2019 (Attachment B). This map was used as a starting point for making employment and dwelling unit projections for the BRCP area. Several modifications have been made to the June 7, 2019 Land Use Map to reflect taxlot and development realities while maintaining substantial compliance with the Concept Plan Map and the public comments heard to date. The following is a summary and justification of the changes made to the June 7, 2019 Land Use Map (Attachment C).

1. North of Old Acres Road – In response to concern from property owners about high-density residential development adjacent to Old Acres Road, the map is adjusted such that R-5 single family development is adjacent to that road. Additionally, some lands on the east edge of the R-2 district is extended across the street to allow for a "Neighborhood Focal Point" as identified in the plan.

Figure 1. BRCP Land Use Map Changes between April 9 and June 7, 2019

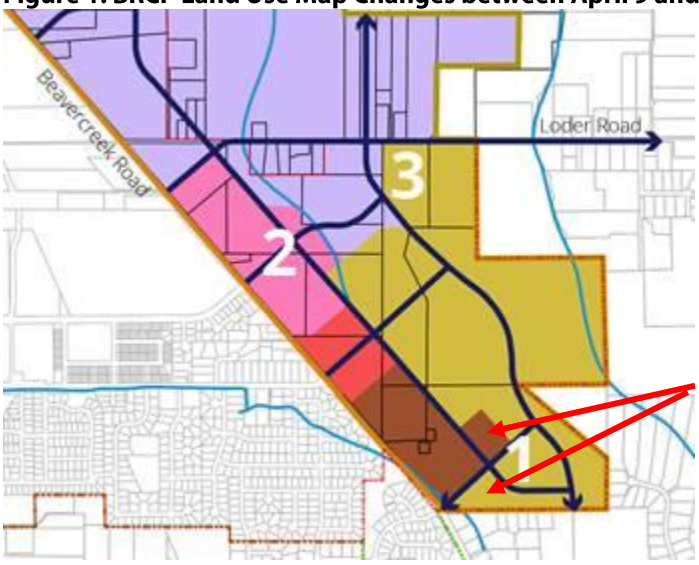
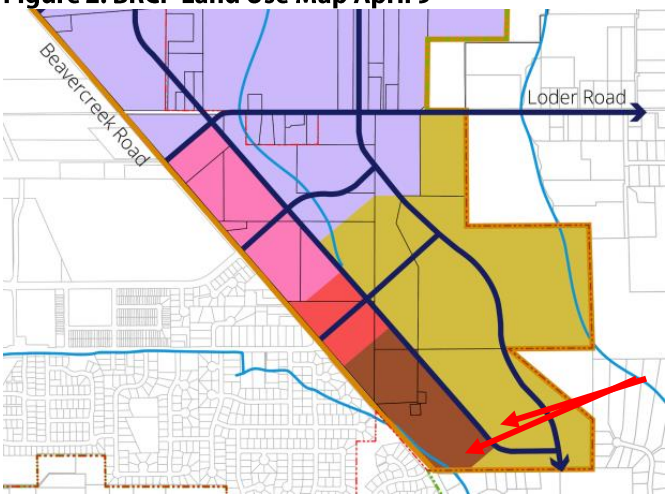


Figure 2. BRCP Land Use Map April 9



2. South of the Natural Resource Overlay District (NROD) in the South Central Open Space – the area north of the road parallel to Beavercreek Road was originally zoned North Employment Campus (CI), but with the NROD and South Central Open Space overlays, there were two remnants that would be too small for industrial uses. The plan identifies this area as part of the Mixed-Employment district (MUC-2), so the boundaries are adjusted to make these remnants part of the MUC-2 district to better conform with the plan and avoid creating unusable lot remnants. Adjusted lines also conform with Title 4 identified lands to avoid conflict.

Figure 3. BRCP Land Use Map Changes between April 9 and June 7, 2019

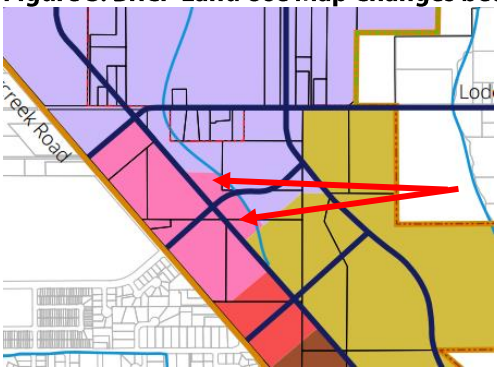
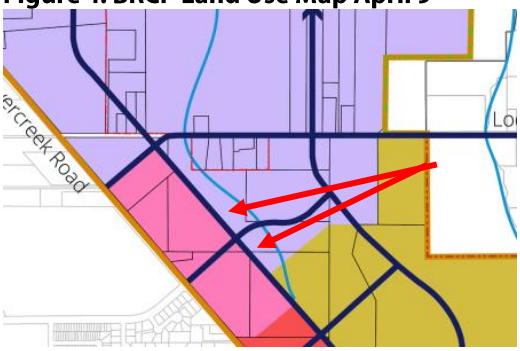


Figure 4. BRCP Land Use Map April 9



3. South of Loder towards the eastern edge of the BRCP area – In response to concern from the public about the prevalence and location of industrial lands near residential areas, lands zoned CI south of Loder Road and northeast of the easternmost north-south connector are adjusted to R-5. There is a small area that is Title 4 identified lands and is not adjusted.

Figure 5. BRCP Land Use Map Changes between April 9 and June 7, 2019

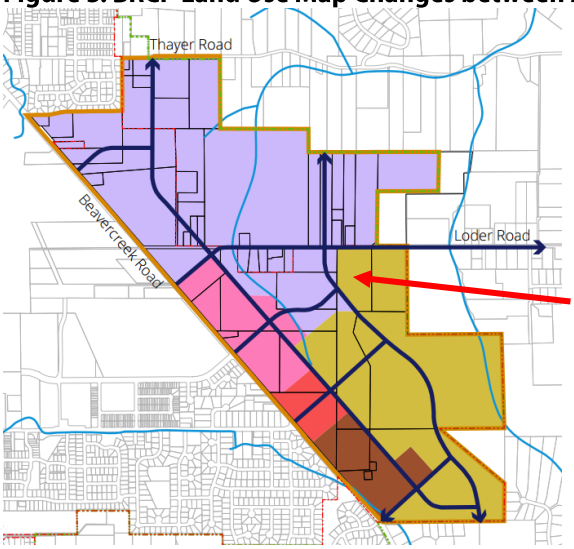
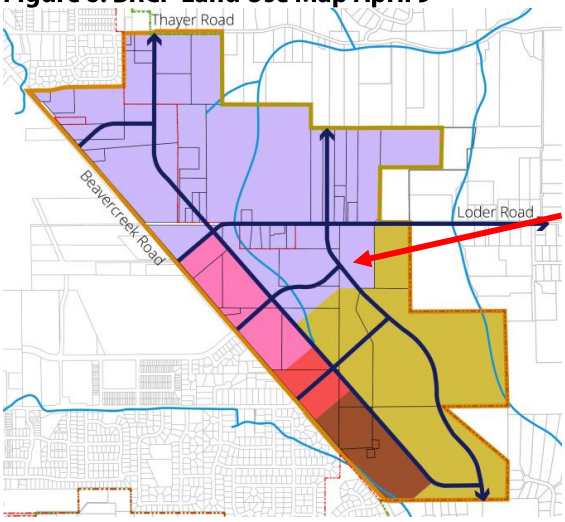


Figure 6. BRCP Land Use Map April 9



At the request of land owners with property north of Loder Road, 3J examined the possibility of changing zoning designations from employment to residential. Lands in the BRCP area north of Loder Road are designated as Metro Title 4 Industrial Lands (https://www.oregonmetro.gov/industrial-and-employment-land) which prohibit residential uses and thus this request could not be considered.

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TECHNICAL MEMORANDUM

To: Christina Robertson-Gardiner, AICP
Oregon City Senior Planner

John M. Lewis
Oregon City Public Works Director

From: Aaron Murphy, P.E.
Steve Faust, AICP

Date: June 19, 2019

Project Name: **Beavercreek Road Concept Plan Implementation – Zoning and Code Amendments**
Project No: **18510.70**
RE: **Infrastructure Memo**

The City of Oregon City (City) has initiated a project to update the Oregon City Comprehensive Plan Map, Zoning Map and Municipal Code to allow planned housing and mixed-use development to occur in the Beavercreek Road Concept Plan (BRCP) area. Updates will apply zoning and map designations for properties within the BRCP area.

As part of the BRCP Implementation project, 3J Consulting has been tasked to review the City's water distribution, sanitary sewer and stormwater master plans and comment on the adequacy of current and planned infrastructure to support the number of new dwelling units and employees that are projected in the BRCP and will be formalized through the zone change.

Beavercreek Road Master Plan
The Beavercreek Road Concept Plan (BRCP) is a guide to the creation of a complete and sustainable neighborhood in southeast Oregon City. The plan, adopted in 2008 and again in 2016, provides a framework for urbanization of 453 acres within the urban growth boundary including a diverse mix of uses (an employment campus north of Loder Road, mixed use districts along Beavercreek Road, and two mixed use neighborhoods), all woven together by open space, trails, a network of green streets, and sustainable development practices. The plan has been carefully crafted to create a multi-use community linking Clackamas Community College, Oregon City High School, and adjacent neighborhoods together.

The BRCP includes Housing and Employment Estimates for the various land use categories:

Land Use Category	Number of Jobs	Number of Dwelling Units
North Employment Campus	3,678	-------
Mixed Employment Village	1,139	-------
Main Street	219	100
West Mixed Use Neighborhood	15	387
East Mixed Use Neighborhood	21	536
Total	**5,073**	**1,023**

Updated projections based on land use maps developed for this project to implement the BRCP estimate the number of dwelling units at 1,105 and jobs at 5,734. We do not consider the change reflected in the revisions to be significant and therefore do not impact the findings of this memorandum.

Zone Change Criteria
The relevant criteria (17.68.020) for a zone change are set forth as follows:

B. That public facilities and services (water, sewer, storm drainage, transportation, schools, police and fire protection) are presently capable of supporting the uses allowed by the zone, or can be made available prior to issuing a certificate of occupancy. Service shall be sufficient to support the range of uses and development allowed by the zone.

This memorandum reflects a first look at the adequacy of current and planned infrastructure to meet the needs of future development. A more detailed look at existing conditions will be needed at the time of development to identify capital improvements needed to show consistency with the Master Plan.

Major Findings
The Sanitary Sewer (2014), Stormwater (2019 Draft) and Water Distribution (2012) Master Plans were all created subsequent to initial adoption of the Beavercreek Road Concept Plan (2008). Each master plan incorporates the BRCP area into future capital improvement projections, but methodologies vary among plans. This conclusion was confirmed through a conversation with Oregon City Public Works Director, John Lewis.

Sanitary Sewer Master Plan (SSMP)
Figure 5-8 on page 5-11 of the 2014 Sanitary Sewer Master Plan refers specifically to the projected Housing and Employment Estimates on page 42 of the BRCP.

Stormwater Master Plan (SWMP)
The Draft 2019 Oregon City Stormwater Master Plan includes the BRCP area, which is part of the Newell Creek Basin, but does not identify any capital improvement projects specifically related to the BRCP. The Plan states that the eventual layout of the stormwater conveyance systems and management facilities will be crafted through the preliminary and final design process for the BRCP area.

Water Distribution Master Plan (WDMP)
The 2019 Technical Memorandum - Oregon City Water Distribution System Capital Improvement Program Update was prepared to provide an update to the 2012 WDMP, including a list of capital improvements. Page 21 of the memo specifically discusses Beavercreek Road development and defines the City's pressure zones that encompass the BRCP.

Economic, Social, Environmental and Energy (ESEE) Analysis
The ESEE consequences that can occur within the proposed MUC, NC, CI, R-5 and R-2 zoning will not result in a greater conflict to the Goal 5 resource mapped on the site over the current FU-10 zoning. The change in zoning from FU-10 to MUC, NC, CI, R-5 and R-2 may result in lesser amounts of environmental and energy consequences; however, MUC, NC, CI, R-5 and R-2 has opportunity to provide increased economic and social benefits. Mixed use centers allow City residents to live near their work, which tends to reduce vehicle use, which minimizes potential air, water and energy quality impacts.

The Goal 5 resources mapped on the site is protected under Chapter 17.49 Natural Resource Overlay District of the City's code of ordinances, regardless of site zoning. Chapter 17.49 of Oregon City code is compliant with Metro's Title 3 and 13 lands and the Statewide Planning Goal 5. Therefore, the potential for increased levels of impervious surfaces and vegetation loss associated with MUC, NC, CI, R-5 and R-2 development activities will be protected and if necessary mitigated through local permitting compliant with Chapter 17.49.

Master Plan Summaries

Sanitary Sewer Master Plan

A Sanitary Sewer Master Plan (SSMP) was prepared by Brown & Caldwell in November 2014. Section 5.2.3.4 of the SSMP focuses on the BRCP area. Table 5-8 of the SSMP references land use designations and the associated gross areas of the BRCP area to calculate sanitary flows to ultimately size pipe diameters and slopes.

Table 5-9 of the SSMP identifies the BRCP area Estimated Improvement Costs for Capital Improvement Plan (CIP) projects is $15,580,000. This amount includes a 50% allowance for construction contingencies.

The CIP list specifically related to the BRCP area includes:

- Gravity Sewer Extensions (8”-15”)
- Two (2) pump stations and associated force mains (BR-1 & BR-2)

Since the SSMP was published, improvements have been completed according to an email provided by Bob Balgos from the City dated March 25, 2019. These improvements include:

- 12” sanitary sewer extension south along Beavercreek Road near the north-end of the Oregon City High School property boundary.

Also identified in the email, City staff have identified construction proposed in 2019-2020:

- 12” sanitary sewer extension in conjunction with the Villages at Beavercreek Development located opposite Meyers Road on the east side of Beavercreek Road. The extension will be completed from the north-end of the Oregon City High School through the entire frontage of Villages at Beavercreek.

Further assessment of the CIP project amount will be necessary to include:

- Completed infrastructure upgrades such as Capital Improvement Projects (CIP), development etc.
- Anticipated infrastructure upgrades such as CIP projects or development such as Villages at Beavercreek
- Inflation and construction cost increases to current dollars.

Stormwater Master Plan

Five (5) Stormwater Master Plans (SWMP) were reviewed:

- Drainage Master Plan, OTAK 1988
- South End Basin Master Plan, Kampe Associates, Inc. 1997
- Caulfield Basin Master Plan, Kampe Associates, Inc. 1997
- Park Place Basin Master Plan, Kampe Associates, Inc. 1997
- Draft Oregon City Stormwater Master Plan. Brown and Caldwell, 2019

The BRCP area largely falls within the Newell Creek Basin. The Draft 2019 SWMP does not specifically reference the BRCP area, but the overall assessment does include recommendations for improvements for the Newell Creek Basin. The City’s stormwater treatment and detention methods apply for all current and future development of the BRCP area.

Page 2-7 references the Beaver Creek Road Concept Plan and states that the concept plan “outlines basic assumptions for the type and quantities of stormwater infrastructure that may be required to develop the planning area. These assumptions are useful for fiscal planning, but the eventual layout of the stormwater conveyance systems and management facilities will be crafted through the preliminary and final design process for [the BRCP] area.”

Low Impact Development (LID) Green Streets are identified for the Beavercreek Road Concept Plan area. The City is currently working on creating green street standards that will be applicable for both the South End and Beavercreek Concept Plan areas. These standards will be based on the identified street sections found in the Concept Plans and are being designed to meet the standards of the draft Storm water Manual. Adoption of these standards will occur in Fall 2019.

Water Distribution Master Plan

A Water Distribution Master Plan (WDMP) was prepared by West Yost Associates in January 2012. Although the WDMP does not specifically reference the BRCP area, the overall assessment does include recommendations for improvements that includes the UGB boundary that encompasses BRCP.

A Technical Memorandum - Oregon City Water Distribution System Capital Improvement Program Update (TM) was prepared by Murraysmith in March 2019. The TM was prepared to provide an update to the WMP produced in 2012, including a list of capital improvements and updated costs from 2009 to 2018 dollars. Page 21 of the memo specifically discusses BRCP area development and defines the City's pressure zones that encompass this area as Upper Zone and Fairway Downs Zone.

Table 17 of the TM identifies the updated CIP list and cost estimate including the improvements required for the City's Upper and Fairway Downs Zones for the BRCP area. The total estimated cost for CIP projects specific to BRCP area total $14,018,000.

The CIP project list includes:

- New Upper Zone distribution
- New Fairway Downs distribution
- New PRV between Fairway Downs and Upper Zone
- New Fairway Downs Reservoir
- New Fairway Downs Pump Station
- New Fairway Downs Transmission
- Transfer existing Henrici transmission to Fairway Downs transmission

The City and Clackamas River Water (CRW) share the need to serve current and future customers at adjoining service area boundaries within the BRCP area.

A Technical Memorandum – Clackamas River Water / City of Oregon City Joint Engineering Analysis Water Service Dual Interest Area Technical Analysis (TM2) was prepared by Murraysmith in June 2018. TM2 identifies opportunities for shared infrastructure partnerships which could ultimately provide a more cost-effective solution to both the City and CRW, see Table 3 of TM2.

The City is preparing a concurrent study to ensure the City can serve the BRCP area in the case that the City and CRW are not able to agree on a partnership to serve the area.

Economic, Social, Environmental and Energy (ESEE) Analysis

As part of a Zone Change analysis, the city requires substantial evidence that the possibility of land use development activities allowed under the new zoning (MUC, NC, CI, R-5 and R-2) will not result in a greater impact on the Goal 5 resources mapped on the site over the existing Future Urban (FU-10) land use development activities.

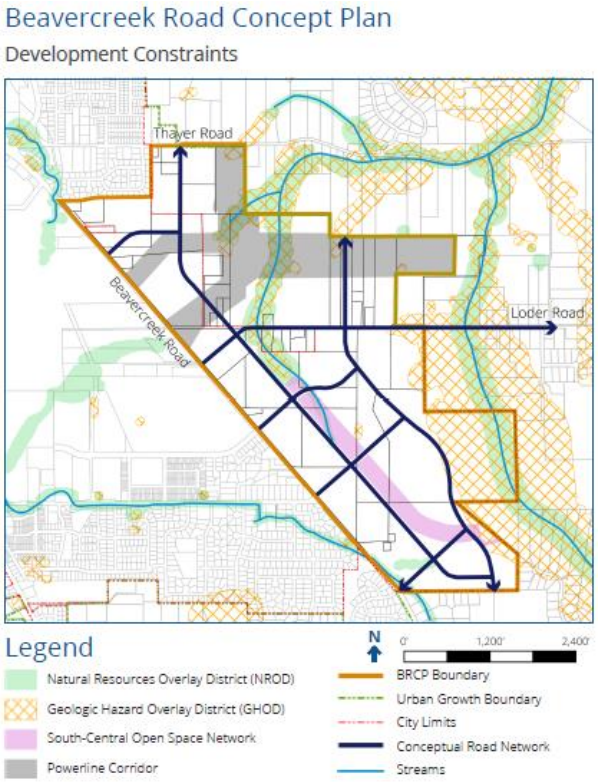
The ESEE analysis involves evaluating the potential tradeoffs associated with different levels of natural resource protection that could be established by the City. As required by the Goal 5 rule (OAR 660-015-0000(5), the evaluation process involves identifying the consequences of allowing, limiting or prohibiting conflicting uses in areas containing significant natural resources. The rule requires that this analysis be completed before actions are taken to protect or not protect natural resources that are identified in inventory and determined to be significant. Specifically, the rule requires the following steps:

1. Identify conflicting uses – A conflicting use is a land use or activity that may negatively impact natural resources.

2. Determine impact area – The impact area represents the extent to which land uses or activities in areas adjacent to natural resources could negatively impact those resources. The impact area identifies the geographic limits within which to conduct the ESEE analysis.

3. Analyze the ESEE consequences – The ESEE analysis considers the consequences of a decision to either fully protect natural resources; fully allow conflicting uses; or limit the conflicting uses. The analysis looks at the consequences of these options for both development and natural resources.

4. Develop a program – The results of the ESEE analysis are used to generate recommendations or an "ESEE decision." The ESEE decision sets the direction for how and under what circumstances the local program will protect significant natural resources.



Based on information provided in Exhibit 3 Economic, Social, Environmental and Energy (ESEE) Phase 1 Analysis of Metro's April 2005 UGB Growth Management Functional Plan ordinance, the section below describes the potential conflicting uses associated with the proposed zone designations could have the greater potential to have an adverse effect on the functions and values of the Goal 5 resource mapped on properties located within the Beavercreek Road Concept Plan area which include Thimble Creek and an unnamed tributary to Thimble Creek. Note the zoning themselves are not conflicting uses.

It is the development activities and other disturbances permitted under the zoning that potentially conflicts with the functions and values associated with the Goal 5 resource. The City of Oregon City developed their Chapter 17.49 Title 13 regulations based on Metro's UGB Management Function Plan. Therefore, the ESEE analysis provided below is consistent with Oregon City's Goal 5 ordinance.

<u>Economic Consequences</u>

FU-10 – May provide increased adjacent property value. Large Lots associated with FU 10 zoning will retain more vegetation and tree cover than the new zones associated with the Beavercreek Road Concept Plan activities; however, does not provide an overall economic value to the community.

R-5 & R-2- These medium density and high density zones can provide a response to the known regional problem of limited housing supply and skyrocketing housing prices affecting the Portland Metro Area and Oregon City. There is a mismatch between supply and demand of housing that is leading to limited availability and affordability challenges for many households. Looking at the latest census data, in Oregon City, 71% of residential units are single-family detached homes, dominating the housing market. All other housing types make up 29% of the housing options, combined, ranging from manufactured homes and floating homes to 20-unit apartment complexes.

Housing prices are increasingly unaffordable, which is typically defined as spending more than 35% of household income on housing. Almost 24% of homeowners with a mortgage have unaffordable costs, and over 40% of renters can't afford housing costs. Overall, one in four households are struggling to pay for housing. Single-family detached homes, a traditional free-standing house with a yard and space for 3.2 children, dominate the supply but comes at a high cost that is increasingly out of reach, leading to homelessness in some cases. With smaller households more and more common, the city's needs don't match the homes available. Additional housing choices that include duplexes, tri-plexes, townhomes, apartments and cluster housing can provide alternatives to the predominate single family housing model found in Oregon City.

MUC, NC and CI – Enhances the potential for local economic development. The zone change supports Metro's Growth Concept Plan underlying goals to provide employment, income, and related tax benefits to local community.

Summary: While FU-10 may result in less vegetation removal, the MUC, ND, CI, R-2 and R-5 land uses provides a greater economic benefit to the community through increased housing options, employment and educational opportunities and reduced transportation facilities and utilities. These zones promote more efficient use of land, minimizing urban sprawl.

Therefore, the conflicting uses associated with MUC, NC, CI, R-5 and R-2 development activities provides a greater economic benefit, outweighing the FU-10 conflicting uses.

Social Consequences

FU-10 –-Goal 5 resource provides natural stress relief to employment occupants. The R-2, R-5, ND, CI and MUC-2 land uses may also provide potential public educational and recreational benefit though passive open space viewing and the ability to dedicate future park space as development occurs within the BRCP area; however, there is a potential to reduce the scenic value.

Summary- Change in conflicting use zoning from FU-10 may provide an increased social benefit to Oregon City.

Environmental Consequences

FU-10–Impacts to Goal 5 resources and associated Impact Area (buffer) for FU-10 development may require: removal of native vegetation; non-native landscaping; pesticide and fertilizer use; and pets which tend to degrade habitat and water quality.

MUC, NC, CI, R-5 and R-2 can create larger building footprints than FU-10 which may result in increased vegetation removal; however, MUC, NC and CII offer decreased VMT (vehicle miles traveled) which reduces overall water quality impacts in the local watershed. Minimal light and glare into Goal 5 resource and buffer. Provides overall moderate to high imperviousness, low infrastructure requirements, and low to moderate overall natural landcover.

Summary: Due to smaller development footprints, disturbance activities associated with FU-10 conflicting uses may provide a lesser degree of impact to the Goal 5 resource and associated buffer than MUC, NC, CI, R-5 and R-2 conflicting use development activities. However, MUC, NC, CI, R-5 and R-2 stricter water quality standards, providing potential for overall lesser amounts of impact to the local watershed.

Energy Consequences

FU-10- Tends to retain more trees than other zoning, reducing air quality and temperature impacts. However, tends to create more infrastructure (utilities and roads) and greater travel distances which can have a negative energy consequence.

MUC, NC, CI, R-5 and R-2 - Energy efficient zoning because it decreases VMT (vehicle miles traveled) and overall infrastructure requirements. Potential to reduces the amount of overall development through shared

parking. Shared parking areas have vegetated islands reducing imperviousness and negative energy consequences associated with temperature regulation.

Summary: MUC, NC, CI, R-5 and R-2 conflicting use development activities for energy consequences may result in lesser impact on the Goal 5 resource and associated buffer over FU-10 development activities.

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ECONorthwest
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DATE: June 21, 2019
TO: Christina Robertson-Gardner, City of Oregon City; Steve Faust, 3J Consulting
FROM: Bob Parker and Matt Craigie, ECONorthwest
SUBJECT: Beavercreek Road Concept Plan - Zoned Capacity Analysis - REVISED

The City of Oregon City contracted ECONorthwest to review and verify previous analyses conducted for the Beavercreek Road Concept Plan. The purpose of the project is to determine if the Beavercreek Road Planning Area—as planned—will have the future zoned capacity to accommodate the Plan's projected number of jobs. In its simplest terms, this analysis is about fit and capacity. The key question is whether the zoning regulations that are being put in place over the Planning Area will actually allow for the 5,000 estimated jobs to occupy future buildings in the area. This analysis does not account for current or projected future market trends; it is exclusively focused on the examination of land use regulations and their implications for job capacity.

Findings

Our analysis shows that the Beavercreek Road Planning Area will have sufficient zoned capacity to accommodate estimated future employment growth. Under current zoning standards, the Planning Area at full build-out will be able to accommodate between 5,700 and 11,700 jobs (Exhibit 1, Rounded). These capacity levels are 15% to 131% more than the targeted 5,000 jobs for the Planning Area. Economic conditions will determine how the area is eventually built out, but zoned capacity is adequate to allow for a range of future job numbers that are at or above desired employment levels as described in the Beavercreek Road Concept Plan.

Exhibit 1. Beavercreek Planning Area, Zoned Capacity.

Sub-District	Maximum Zoned Job Capacity	Zoned Job Capacity with Market Considerations
Main Street	727	352
Mixed Employment Village	2,827	1,399
North Employment Campus	8,169	3,983
Total	**11,723**	**5,734**

Source: ECONorthwest

Our zoned capacity model was built using Oregon City's current zoning standards. Here we present two capacity estimates:

- First, **the maximum job capacity** for the area shows the total number of jobs that could fit in the area under current regulations.
- Second, the lower estimate—**Job Capacity with Market Considerations**—illustrates another interpretation of Oregon City's zoning regulations. In this second scenario, we have further restricted the scale of allowable development by: (1) modeling an underbuilt of total development as a result of insufficient parking areas, and (2) dedicating a higher percentage of area on individual parcels to internal rights of way,

ingress/egress space, and private streets. This is intended to reflect potential market conditions that would reduce the amount of built space, and as a result, the number of employees.

The maximum zoned capacity scenario is a true maximum; meaning that this estimate is modeling the highest density of employment permissible by zoning regulations and standards, without any consideration for how employment areas generally get developed. For example, the maximum scenario assumes over 8,000 jobs in the North Employment Campus area. To accomplish this scale of development would require the development of acres upon acres of four-story office buildings that have relatively little parking area. Although permissible, this scenario is unlikely to occur and therefore is a poor estimate of the actual zoned capacity of the Planning Area.

The more restrictive scenario presents a situation where development scale is linked to our observations of the density of other similar industrial areas across the Portland region and therefore better reflects what one could expect to happen in the Beavercreek Planning Area. For this scenario, we have adapted parking ratios to those generally demanded in the marketplace and deducted some internal area of parcels for circulation space and other rights of way. The large size of some parcels, especially inside the North Employment Campus (NEC), would warrant these internal spaces dedicated to transportation flow and parking.

For example, many flex-industrial buildings—a desired development type for the NEC—are two story buildings with multiple tenants. These "flex" buildings are built to flexibly adapt to the needs of different tenants. They are built with adaptable internal build-outs (e.g. varying amounts of office and warehouse space) and feature enough parking for employees as well as truck loading/unloading, circulation, and outdoor storage. Therefore, it is common to see flex buildings with not just enough parking and circulation space for employees that are coming and going from work, but to accommodate a wider variety of truck space, outdoor storage space, and general circulation space. In our model, we reflect these common observations by both increasing the parking ratio and reducing the number of stories for buildings in the NEC. These changes bring the potential development scale for the NEC in line with the maximum build-out observed in other industrial areas of the region.

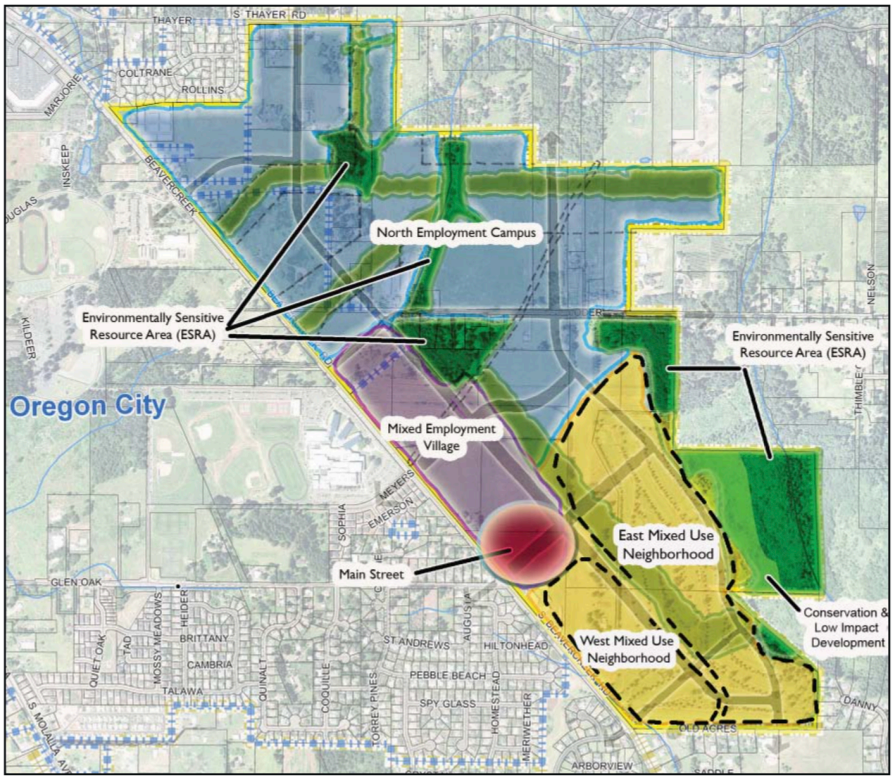
With these changes, the restrictive—and more realistic—scenario shows a zoned capacity of the Planning Area to be reduced from the maximum scenario (11,723 down to 5,734). Despite the reduction, there still is adequate space to accommodate the 5,000 projected jobs.

Economic and market trends will inform the type, scale, and demands of future development of the Beavercreek Planning Area. Whatever development does eventually get built in the area, our analysis shows that zoning regulations and standards will allow for enough developable space for the desired amount of employment.

Background

In 2008, Oregon City contracted the consulting firm Otak, in collaboration with several consultants (including ECONorthwest), to develop a concept plan[1] for a 453-acre site in the southeast area Oregon City. The Plan envisioned a diverse mix of uses, organized by five sub-districts (see Exhibit 2).

Exhibit 2. Land Use Sub-Districts for Beavercreek Road Concept Plan
Source: Beavercreek Road Concept Plan, Envision a Complete and Sustainable Community, 2008.



The five subareas are summarized as follows:

1. **North Employment Campus (NEC)** allows clean industries, offices servicing industrial needs, light industrial uses, research and development, and large corporate headquarters.
2. **Mixed Employment Village (MEV)** allows retail and offices (including civic and residential uses).
3. **Main Street (MS)** allows small scale commercial and mixed-use services.
4. **West Mixed-Use Neighborhood (WMU)** allows live/work units, mixed use buildings, limited commercial uses, and—to a larger extent—housing.

[1] Beavercreek Road Concept Plan, Envision a Complete and Sustainable Community, 2008.

5. **East Mixed-Use Neighborhood (EMU)** primarily allows housing.

At present, Oregon City is revisiting the concept plan as a step toward the Plan's implementation. The City has asked several consultants to review and analyze select parts of the concept plan to verify the veracity of its underlying analyses. A key aspect of this effort is to understand whether the Planning Area will have the zoned capacity to accommodate the Plan's stated number of future jobs. ECONorthwest was assigned this task. To answer this key question of zoned capacity, we reviewed the findings of the 2008 work and conducted additional analyses. Our approach and a description of our analysis is outlined in the next section.

Approach

Our approach to this analysis had a few steps. These included:

- **Collecting and verifying data.** The first step involved gathering applicable data from the Plan, from the City, and other sources. Employment projections come directly from The Plan. The Plan identified an estimated capacity for approximately 5,000 jobs (for reference, the output table from the Plan is presented in Appendix A).

  We also compiled an organized list of Oregon City's development codes, standards, and regulations from the City's current municipal code. These regulatory standards were used to create our zoned capacity model.

- **Developing a zoned capacity model.** Using Oregon City's development code and standards, we generated a catalogue of zoning requirements and limitations for each zoning designation that comprises the five sub-districts of the Planning Area. With this information, we developed a model that calculates the maximum job capacity for each sub-district. To calibrate the model to likely future outcomes, we relied on planning and development assumptions taken from our observations of similar fully built-out areas around the Portland Metropolitan region.[2]

- **Reconciling zoned capacity model output with future employment projections**. This step formed the central part of our analysis. In this step, we used the output of the zoned capacity model—the job capacity for each subarea of the Planning Area—and matched those outputs to future employment projections.

  A more detailed description of our analysis is presented in the next section.

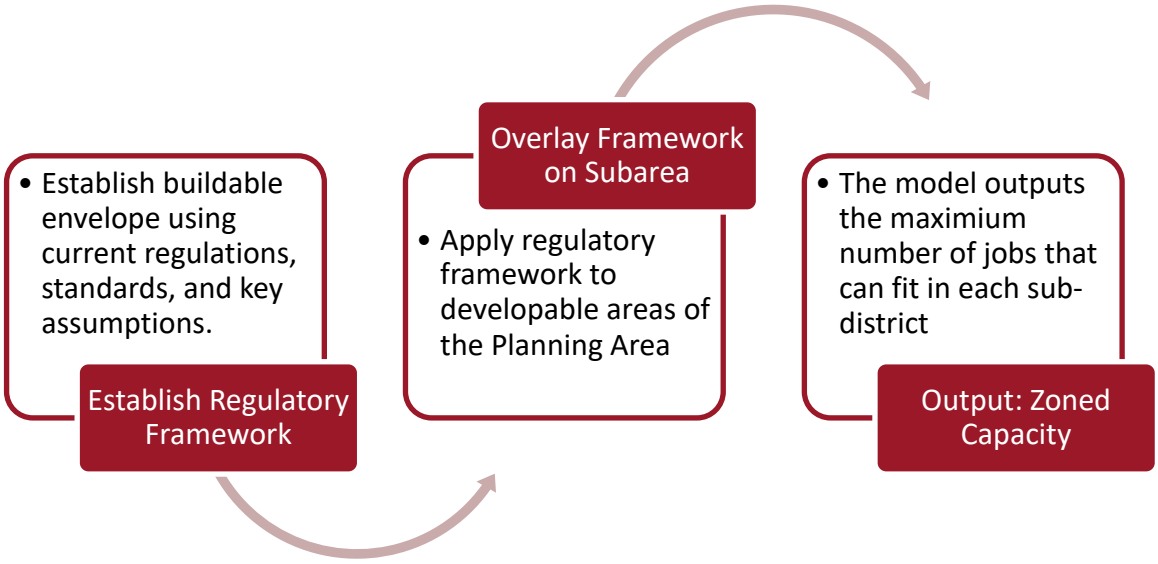
[2] Key assumptions for this analysis, include: actual parking ratios, percent of parcels that achieve full build-out, common building to land ratios, among others.

Description of Zoned Capacity Analysis

The Model

To understand the future capacity of jobs in the Beavercreek Road Planning Area, we built a model that mimics zoning regulations and standards for the expected land use zones to be applied to the Planning Area sub-districts. The model works by taking key inputs and assumptions about the regulatory framework that will govern land uses in the Planning Area and overlaying them across the developable land of the area. The output of the model is the maximum zoned capacity for jobs within the Planning Area (See Exhibit 3).

Exhibit 3: Zoned Capacity Model Process
Source: ECONorthwest.



Key Model Inputs and Assumptions

To arrive at an accurate understanding of the zoned capacity for jobs of any to-be-developed area requires a large set of inputs and assumptions. For this type of analysis, the type of inputs and assumptions are related to regulations and standards that will guide the development of new buildings and their supportive elements (e.g. parking). Some inputs are rigid and unlikely to change, such as maximum building heights or setbacks. Assumptions are more qualitative and require specialized knowledge about aspects of how real estate gets developed. Inputs and assumptions also have a varied impact on the output of the model. Some, like parking ratios, have a strong influence on the model's output. Others have less of an impact. Below we describe inputs and assumptions that have a major impact on the model's output.

- **Dimensional standards.** Dimensional standards define the maximum "box" that a building can fill on a parcel. These standards are determined through setbacks, maximum building heights, landscaping requirements, and other restrictions.

  Source: City of Oregon City Development Code.

- **Employment density.** This assumption describes the relationship between build-area (area inside buildings) and the number of jobs that fill those spaces. This assumption is typically described as jobs per square feet of building area. This is a key metric for this analysis. The smaller the number, the higher the job density. Larger numbers mean fewer jobs per building area, and therefore fewer jobs overall.

  Source: Metro Employment Density Study, ECONorthwest.

- **Parking ratios.** The amount of automobile parking that is available for a new development is a key factor in determining its viability. Whether capped by regulations or demanded by the market, new developments need a certain amount of parking to attract funding and become economically successful land uses. Most cities, Oregon City included, provide regulations about the minimum and maximum amount of parking for new developments. Sometimes these regulations are perceived to be out of sync with what the real estate market demands. This can happen when urban, transit served developments are required to have "too much" parking. Or when suburban areas with little accessibility do not have sufficient land for necessary parking to support new development.

  In our observations of real estate development, one of the primary reasons that development projects get "under-built", or do not achieve the building height or scale otherwise permissible by development regulations, is too little provision of on-site parking. For this analysis, we have used Oregon City's parking regulations as a general guide for the amount of parking that will be required to accompany new developments in the Planning Area.

  Source: City of Oregon City, ECONorthwest.

- **Parcel size and building to land ratios.** The Beavercreek Planning Area of tomorrow is expected to look remarkably different than it does today. As it develops, property owners will sell to developers who, in many cases, will aggregate several parcels of land to create a "developable parcel" for their specific desired land use. To understand what size these future parcels may be and to what extent they will be covered with a building footprint, we observed several areas of the Portland region that contain similar land uses to those proposed for the Planning Area. These observations, combined with our knowledge of specific types of development elsewhere, formed our assumptions for future parcels sizes and building to land ratios.

  Source: ECONorthwest.

- **Maximum build-out and "under-build".** Each developable piece of land has an invisible envelope or "box" that forms the vertical area in space that a building can

occupy. This box is determined by the zoning regulations and standards that govern the land use of that property. Building to full capacity would mean that this box is entirely filled with building area. Many times, developers "under-build" or chose to not fully take advantage of all of the vertical buildable space available to them. In an economic sense, it would be advantageous for a developer to build as much building area as she could lease or sell. If some of this building area does not contribute economically to her pro forma or if it is hard to lease or sell, she may choose to build a smaller building. As stated in the parking ratios description, we commonly observe that developers chose to under-build their properties when they are unable to secure access to a sufficient level of parking.

For this analysis, we have assumed that many of the future developable parcels will under-build for lack of parking or other reasons. This is in-line with our observations of developed areas that are similar to the Planning Area in other parts of the Portland region.

- **Source**: ECONorthwest

Key Data

This analysis is focused on one key question: Will the future regulatory environment of the Beavercreek Planning Area allow enough buildable area to accommodate the projected number of future jobs for this area. To answer this question, we relied upon data from the several sources. Key data to this analysis are as follows:

- **Projected Jobs for the Planning Area.** We have relied on the projected number of jobs for the Beavercreek Planning Area as stated in The Plan. The Plan identified an estimated capacity for approximately 5,000 jobs (for reference, the output table from the Plan is presented in Appendix A).

  This number of jobs—5,000—is a key data point for this work. It is the number of jobs that we are trying to fit into the Beavercreek Planning Area.

- **Planning Area Size and Developable Acres.** The Planning Area is approximately 449 acres in total size (gross size). Per the Plan, of this 449, there are 241 net developable acres. The difference between 449 and 241 includes roads, easements, wetlands, and other undevelopable lands.

Together the (1) projected job numbers, and (2) the developable area within the Planning Area form the two key data points for this analysis. These data can be further divided by sub-district of the Planning Area (See Exhibit 4). This is an important point; each sub-district has its own employment projections and will have its own zoning regulations.

Exhibit 4. Beavercreek Planning Area Sub-Districts: Estimated Jobs and Net Areas (Acres)[3][4]
Source: City of Oregon City, ECONorthwest.

Planning Area Sub-District	Estimated Jobs	Net Developable Acres
North Employment Campus (NEC)	3,678	132
Mixed Employment Village (MEV)	1,139	26
Main Street	219	7
West Mixed-Use Neighborhood	15	12
East Mixed-use Neighborhood	21	65
Totals	**5,073**	**241**

Findings

See the first page of this report for a discussion of our findings.

[3] Rounding of numbers may result in approximate totals. *Note: The acreage estimates do not exactly align with those in Exhibit 6. Acreages in Exhibit 6 have been reevaluated since the time of The Plan. In our analysis, we are using the latest size estimates provided by the City of Oregon City.*

[4] We concentrated our analyses on the three sub-districts with significant employment projections. The mixed-use neighborhoods have been excluded from our analyses.

Appendix A. Employment Estimates, 2008

The Beavercreek Road Concept plan estimated employment capacity at approximately 5,000 jobs (33 jobs per net acre).

Exhibit 5. Employment Estimates, Beavercreek Road Planning Area
Source: Beavercreek Road Concept Plan, Envision a Complete and Sustainable Community (pg. 42), 2008.

Land Use Category	Hybrid Gross Acres	Hybrid Net Acres*	FAR/Acre**	SF/Job**	# of Jobs***	Avg. Units/Acre	# of Units+
North Employment Campus (adjusted gross acreage)	149	127	0.3	450	3,678		
Mixed Employment Village	26	21	0.44	350	1,139		
Main Street****	10	8	0.44	350	219	25	100
West Mixed Use Neighborhood	22	18			15	22	387
East Mixed Use Neighborhood	77	62			21	8.7	536
Total # of Jobs					**5,073**		
Total # of Housing Units							**1,023**
Total Acres of Developed Land++	**284**	**235**					

***For Hybrid -** Net acres equals gross acres minus 15% for local roads and easements in Employment. Mixed Employment, Mixed Use, and residential areas assume 20% for local roads and easements

* *Based on Metro 2002-2022 Urban Growth Report: An Employment Land Need Analysis. Includes total on site employment (full and part time). Mixed Employment FAR and job density reflects a mix of office, tech/flex, and ground floor retail.

***Number of Jobs in Employment, Mixed Employment, Mixed Use calculated by multiplying total acres by the FAR; Converting to square feet; and dividing by number of jobs/square foot. Jobs in residential areas (Work at Home Jobs) estimated at 4% (potential could be as high as 15%).

**** Mixed Use land use assumes 50% of acreage devoted to commercial uses and the remaining 50% devoted to vertical mixed use.

+Number of units calculated by multiplying total net acres of residential land use by average units per acre

++Includes 50% of useable power line corridor (26 acres total) as part of developed land (included in Employment land area)

+++Does not include powerline corridor acreage as part of developed land

TECHNICAL MEMORANDUM

To: Christina Robertson-Gardiner, AICP
Oregon City Senior Planner

John M. Lewis
Oregon City Public Works Director

From: Aaron Murphy, P.E.
Steve Faust, AICP

Date: June 19, 2019

Project Name: **Beavercreek Road Concept Plan Implementation – Zoning and Code Amendments**
Project No: **18510.70**
RE: **Infrastructure Memo**

The City of Oregon City (City) has initiated a project to update the Oregon City Comprehensive Plan Map, Zoning Map and Municipal Code to allow planned housing and mixed-use development to occur in the Beavercreek Road Concept Plan (BRCP) area. Updates will apply zoning and map designations for properties within the BRCP area.

As part of the BRCP Implementation project, 3J Consulting has been tasked to review the City's water distribution, sanitary sewer and stormwater master plans and comment on the adequacy of current and planned infrastructure to support the number of new dwelling units and employees that are projected in the BRCP and will be formalized through the zone change.

Beavercreek Road Master Plan
The Beavercreek Road Concept Plan (BRCP) is a guide to the creation of a complete and sustainable neighborhood in southeast Oregon City. The plan, adopted in 2008 and again in 2016, provides a framework for urbanization of 453 acres within the urban growth boundary including a diverse mix of uses (an employment campus north of Loder Road, mixed use districts along Beavercreek Road, and two mixed use neighborhoods), all woven together by open space, trails, a network of green streets, and sustainable development practices. The plan has been carefully crafted to create a multi-use community linking Clackamas Community College, Oregon City High School, and adjacent neighborhoods together.

The BRCP includes Housing and Employment Estimates for the various land use categories:

Land Use Category	Number of Jobs	Number of Dwelling Units
North Employment Campus	3,678	-------
Mixed Employment Village	1,139	-------
Main Street	219	100
West Mixed Use Neighborhood	15	387
East Mixed Use Neighborhood	21	536
Total	**5,073**	**1,023**

Updated projections based on land use maps developed for this project to implement the BRCP estimate the number of dwelling units at 1,105 and jobs at 5,734. We do not consider the change reflected in the revisions to be significant and therefore do not impact the findings of this memorandum.

Zone Change Criteria
The relevant criteria (17.68.020) for a zone change are set forth as follows:

B. That public facilities and services (water, sewer, storm drainage, transportation, schools, police and fire protection) are presently capable of supporting the uses allowed by the zone, or can be made available prior to issuing a certificate of occupancy. Service shall be sufficient to support the range of uses and development allowed by the zone.

This memorandum reflects a first look at the adequacy of current and planned infrastructure to meet the needs of future development. A more detailed look at existing conditions will be needed at the time of development to identify capital improvements needed to show consistency with the Master Plan.

Major Findings
The Sanitary Sewer (2014), Stormwater (2019 Draft) and Water Distribution (2012) Master Plans were all created subsequent to initial adoption of the Beavercreek Road Concept Plan (2008). Each master plan incorporates the BRCP area into future capital improvement projections, but methodologies vary among plans. This conclusion was confirmed through a conversation with Oregon City Public Works Director, John Lewis.

Sanitary Sewer Master Plan (SSMP)
Figure 5-8 on page 5-11 of the 2014 Sanitary Sewer Master Plan refers specifically to the projected Housing and Employment Estimates on page 42 of the BRCP.

Stormwater Master Plan (SWMP)
The Draft 2019 Oregon City Stormwater Master Plan includes the BRCP area, which is part of the Newell Creek Basin, but does not identify any capital improvement projects specifically related to the BRCP. The Plan states that the eventual layout of the stormwater conveyance systems and management facilities will be crafted through the preliminary and final design process for the BRCP area.

Water Distribution Master Plan (WDMP)
The 2019 Technical Memorandum - Oregon City Water Distribution System Capital Improvement Program Update was prepared to provide an update to the 2012 WDMP, including a list of capital improvements. Page 21 of the memo specifically discusses Beavercreek Road development and defines the City's pressure zones that encompass the BRCP.

Economic, Social, Environmental and Energy (ESEE) Analysis
The ESEE consequences that can occur within the proposed MUC, NC, CI, R-5 and R-2 zoning will not result in a greater conflict to the Goal 5 resource mapped on the site over the current FU-10 zoning. The change in zoning from FU-10 to MUC, NC, CI, R-5 and R-2 may result in lesser amounts of environmental and energy consequences; however, MUC, NC, CI, R-5 and R-2 has opportunity to provide increased economic and social benefits. Mixed use centers allow City residents to live near their work, which tends to reduce vehicle use, which minimizes potential air, water and energy quality impacts.

The Goal 5 resources mapped on the site is protected under Chapter 17.49 Natural Resource Overlay District of the City's code of ordinances, regardless of site zoning. Chapter 17.49 of Oregon City code is compliant with Metro's Title 3 and 13 lands and the Statewide Planning Goal 5. Therefore, the potential for increased levels of impervious surfaces and vegetation loss associated with MUC, NC, CI, R-5 and R-2 development activities will be protected and if necessary mitigated through local permitting compliant with Chapter 17.49.

Master Plan Summaries

Sanitary Sewer Master Plan

A Sanitary Sewer Master Plan (SSMP) was prepared by Brown & Caldwell in November 2014. Section 5.2.3.4 of the SSMP focuses on the BRCP area. Table 5-8 of the SSMP references land use designations and the associated gross areas of the BRCP area to calculate sanitary flows to ultimately size pipe diameters and slopes.

Table 5-9 of the SSMP identifies the BRCP area Estimated Improvement Costs for Capital Improvement Plan (CIP) projects is $15,580,000. This amount includes a 50% allowance for construction contingencies.

The CIP list specifically related to the BRCP area includes:

- Gravity Sewer Extensions (8”-15”)
- Two (2) pump stations and associated force mains (BR-1 & BR-2)

Since the SSMP was published, improvements have been completed according to an email provided by Bob Balgos from the City dated March 25, 2019. These improvements include:

- 12” sanitary sewer extension south along Beavercreek Road near the north-end of the Oregon City High School property boundary.

Also identified in the email, City staff have identified construction proposed in 2019-2020:

- 12” sanitary sewer extension in conjunction with the Villages at Beavercreek Development located opposite Meyers Road on the east side of Beavercreek Road. The extension will be completed from the north-end of the Oregon City High School through the entire frontage of Villages at Beavercreek.

Further assessment of the CIP project amount will be necessary to include:

- Completed infrastructure upgrades such as Capital Improvement Projects (CIP), development etc.
- Anticipated infrastructure upgrades such as CIP projects or development such as Villages at Beavercreek
- Inflation and construction cost increases to current dollars.

Stormwater Master Plan

Five (5) Stormwater Master Plans (SWMP) were reviewed:

- Drainage Master Plan, OTAK 1988
- South End Basin Master Plan, Kampe Associates, Inc. 1997
- Caulfield Basin Master Plan, Kampe Associates, Inc. 1997
- Park Place Basin Master Plan, Kampe Associates, Inc. 1997
- Draft Oregon City Stormwater Master Plan. Brown and Caldwell, 2019

The BRCP area largely falls within the Newell Creek Basin. The Draft 2019 SWMP does not specifically reference the BRCP area, but the overall assessment does include recommendations for improvements for the Newell Creek Basin. The City’s stormwater treatment and detention methods apply for all current and future development of the BRCP area.

Page 2-7 references the Beaver Creek Road Concept Plan and states that the concept plan “outlines basic assumptions for the type and quantities of stormwater infrastructure that may be required to develop the planning area. These assumptions are useful for fiscal planning, but the eventual layout of the stormwater conveyance systems and management facilities will be crafted through the preliminary and final design process for [the BRCP] area.”

Low Impact Development (LID) Green Streets are identified for the Beavercreek Road Concept Plan area. The City is currently working on creating green street standards that will be applicable for both the South End and Beavercreek Concept Plan areas. These standards will be based on the identified street sections found in the Concept Plans and are being designed to meet the standards of the draft Storm water Manual. Adoption of these standards will occur in Fall 2019.

Water Distribution Master Plan

A Water Distribution Master Plan (WDMP) was prepared by West Yost Associates in January 2012. Although the WDMP does not specifically reference the BRCP area, the overall assessment does include recommendations for improvements that includes the UGB boundary that encompasses BRCP.

A Technical Memorandum - Oregon City Water Distribution System Capital Improvement Program Update (TM) was prepared by Murraysmith in March 2019. The TM was prepared to provide an update to the WMP produced in 2012, including a list of capital improvements and updated costs from 2009 to 2018 dollars. Page 21 of the memo specifically discusses BRCP area development and defines the City's pressure zones that encompass this area as Upper Zone and Fairway Downs Zone.

Table 17 of the TM identifies the updated CIP list and cost estimate including the improvements required for the City's Upper and Fairway Downs Zones for the BRCP area. The total estimated cost for CIP projects specific to BRCP area total $14,018,000.

The CIP project list includes:

- New Upper Zone distribution
- New Fairway Downs distribution
- New PRV between Fairway Downs and Upper Zone
- New Fairway Downs Reservoir
- New Fairway Downs Pump Station
- New Fairway Downs Transmission
- Transfer existing Henrici transmission to Fairway Downs transmission

The City and Clackamas River Water (CRW) share the need to serve current and future customers at adjoining service area boundaries within the BRCP area.

A Technical Memorandum – Clackamas River Water / City of Oregon City Joint Engineering Analysis Water Service Dual Interest Area Technical Analysis (TM2) was prepared by Murraysmith in June 2018. TM2 identifies opportunities for shared infrastructure partnerships which could ultimately provide a more cost-effective solution to both the City and CRW, see Table 3 of TM2.

The City is preparing a concurrent study to ensure the City can serve the BRCP area in the case that the City and CRW are not able to agree on a partnership to serve the area.

Economic, Social, Environmental and Energy (ESEE) Analysis

As part of a Zone Change analysis, the city requires substantial evidence that the possibility of land use development activities allowed under the new zoning (MUC, NC, CI, R-5 and R-2) will not result in a greater impact on the Goal 5 resources mapped on the site over the existing Future Urban (FU-10) land use development activities.

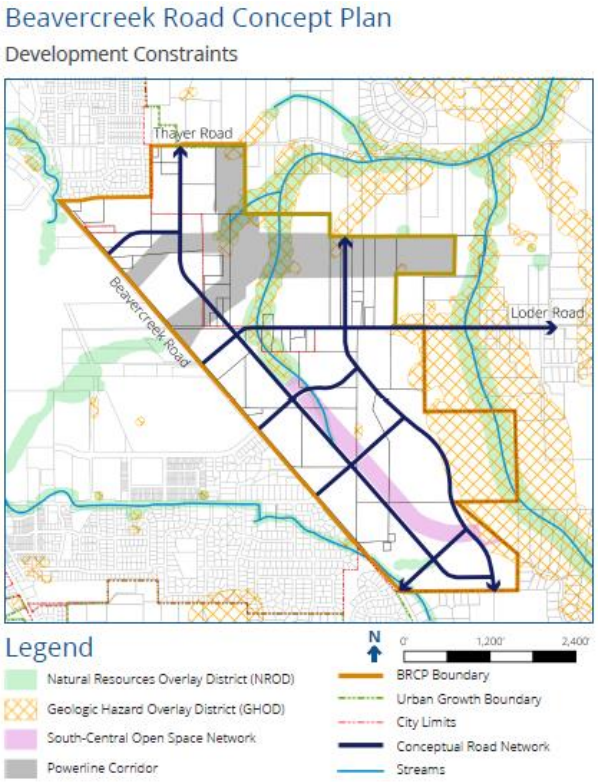
The ESEE analysis involves evaluating the potential tradeoffs associated with different levels of natural resource protection that could be established by the City. As required by the Goal 5 rule (OAR 660-015-0000(5), the evaluation process involves identifying the consequences of allowing, limiting or prohibiting conflicting uses in areas containing significant natural resources. The rule requires that this analysis be completed before actions are taken to protect or not protect natural resources that are identified in inventory and determined to be significant. Specifically, the rule requires the following steps:

1. Identify conflicting uses – A conflicting use is a land use or activity that may negatively impact natural resources.

2. Determine impact area – The impact area represents the extent to which land uses or activities in areas adjacent to natural resources could negatively impact those resources. The impact area identifies the geographic limits within which to conduct the ESEE analysis.

3. Analyze the ESEE consequences – The ESEE analysis considers the consequences of a decision to either fully protect natural resources; fully allow conflicting uses; or limit the conflicting uses. The analysis looks at the consequences of these options for both development and natural resources.

4. Develop a program – The results of the ESEE analysis are used to generate recommendations or an "ESEE decision." The ESEE decision sets the direction for how and under what circumstances the local program will protect significant natural resources.



Based on information provided in Exhibit 3 Economic, Social, Environmental and Energy (ESEE) Phase 1 Analysis of Metro's April 2005 UGB Growth Management Functional Plan ordinance, the section below describes the potential conflicting uses associated with the proposed zone designations could have the greater potential to have an adverse effect on the functions and values of the Goal 5 resource mapped on properties located within the Beavercreek Road Concept Plan area which include Thimble Creek and an unnamed tributary to Thimble Creek. Note the zoning themselves are not conflicting uses.

It is the development activities and other disturbances permitted under the zoning that potentially conflicts with the functions and values associated with the Goal 5 resource. The City of Oregon City developed their Chapter 17.49 Title 13 regulations based on Metro's UGB Management Function Plan. Therefore, the ESEE analysis provided below is consistent with Oregon City's Goal 5 ordinance.

<u>Economic Consequences</u>

FU-10 – May provide increased adjacent property value. Large Lots associated with FU 10 zoning will retain more vegetation and tree cover than the new zones associated with the Beavercreek Road Concept Plan activities; however, does not provide an overall economic value to the community.

R-5 & R-2- These medium density and high density zones can provide a response to the known regional problem of limited housing supply and skyrocketing housing prices affecting the Portland Metro Area and Oregon City. There is a mismatch between supply and demand of housing that is leading to limited availability and affordability challenges for many households. Looking at the latest census data, in Oregon City, 71% of residential units are single-family detached homes, dominating the housing market. All other housing types make up 29% of the housing options, combined, ranging from manufactured homes and floating homes to 20-unit apartment complexes.

Housing prices are increasingly unaffordable, which is typically defined as spending more than 35% of household income on housing. Almost 24% of homeowners with a mortgage have unaffordable costs, and over 40% of renters can't afford housing costs. Overall, one in four households are struggling to pay for housing. Single-family detached homes, a traditional free-standing house with a yard and space for 3.2 children, dominate the supply but comes at a high cost that is increasingly out of reach, leading to homelessness in some cases. With smaller households more and more common, the city's needs don't match the homes available. Additional housing choices that include duplexes, tri-plexes, townhomes, apartments and cluster housing can provide alternatives to the predominate single family housing model found in Oregon City.

MUC, NC and CI – Enhances the potential for local economic development. The zone change supports Metro's Growth Concept Plan underlying goals to provide employment, income, and related tax benefits to local community.

Summary: While FU-10 may result in less vegetation removal, the MUC, ND, CI, R-2 and R-5 land uses provides a greater economic benefit to the community through increased housing options, employment and educational opportunities and reduced transportation facilities and utilities. These zones promote more efficient use of land, minimizing urban sprawl.

Therefore, the conflicting uses associated with MUC, NC, CI, R-5 and R-2 development activities provides a greater economic benefit, outweighing the FU-10 conflicting uses.

Social Consequences

FU-10 –-Goal 5 resource provides natural stress relief to employment occupants. The R-2, R-5, ND, CI and MUC-2 land uses may also provide potential public educational and recreational benefit though passive open space viewing and the ability to dedicate future park space as development occurs within the BRCP area; however, there is a potential to reduce the scenic value.

Summary- Change in conflicting use zoning from FU-10 may provide an increased social benefit to Oregon City.

Environmental Consequences

FU-10–Impacts to Goal 5 resources and associated Impact Area (buffer) for FU-10 development may require: removal of native vegetation; non-native landscaping; pesticide and fertilizer use; and pets which tend to degrade habitat and water quality.

MUC, NC, CI, R-5 and R-2 can create larger building footprints than FU-10 which may result in increased vegetation removal; however, MUC, NC and CII offer decreased VMT (vehicle miles traveled) which reduces overall water quality impacts in the local watershed. Minimal light and glare into Goal 5 resource and buffer. Provides overall moderate to high imperviousness, low infrastructure requirements, and low to moderate overall natural landcover.

Summary: Due to smaller development footprints, disturbance activities associated with FU-10 conflicting uses may provide a lesser degree of impact to the Goal 5 resource and associated buffer than MUC, NC, CI, R-5 and R-2 conflicting use development activities. However, MUC, NC, CI, R-5 and R-2 stricter water quality standards, providing potential for overall lesser amounts of impact to the local watershed.

Energy Consequences

FU-10- Tends to retain more trees than other zoning, reducing air quality and temperature impacts. However, tends to create more infrastructure (utilities and roads) and greater travel distances which can have a negative energy consequence.

MUC, NC, CI, R-5 and R-2 - Energy efficient zoning because it decreases VMT (vehicle miles traveled) and overall infrastructure requirements. Potential to reduces the amount of overall development through shared

parking. Shared parking areas have vegetated islands reducing imperviousness and negative energy consequences associated with temperature regulation.

Summary: MUC, NC, CI, R-5 and R-2 conflicting use development activities for energy consequences may result in lesser impact on the Goal 5 resource and associated buffer over FU-10 development activities.

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DRAFT MEMORANDUM

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www.dksassociates.com

DATE: June 21, 2019

TO: Christina Robertson-Gardiner, City of Oregon City

FROM: Kevin Chewuk, DKS Associates
Amanda Deering, DKS Associates

SUBJECT: Oregon City Beavercreek Land Use Review P19082-001

This memorandum summarizes how the requirements of Oregon Administrative Rule (OAR) 660-012-0060, the Transportation Planning Rule (TPR), are met for the Beavercreek Concept Plan area in Oregon City, Oregon. The study area comprises the adopted 2008 Beavercreek Concept Plan area which established land use designations, design guidelines and future transportation infrastructure needs. The Beavercreek Concept Plan area is roughly bounded by the Urban Growth Boundary to the east, Beavercreek Road to the west, Old Acres Road to the south and Thayer Road to the north. The following sections describe the consistency of the Beavercreek Concept Plan with the current Oregon City Transportation System Plan (TSP).

Land Use Assumptions

The Beavercreek Concept Plan area includes about 5,700 new jobs and 1,100 new housing units. Table 1 describes the assumptions that were used. For the Oregon City TSP, vehicle trips within the Beavercreek Concept Plan area were estimated based on around 1,639 new jobs and 355 new households. The Beavercreek Concept Plan was held up in the Oregon Land Use Board of Appeals (LUBA) during the recent update to the Oregon City TSP, thus the zoning in the Beavercreek Concept Plan area did not reflect the rezoned land resulting from the plan.

Land Use and Motor Vehicle Trip Generation Assumptions

The impact of the increased vehicle trip generation on the surrounding transportation system, as a result of the Beavercreek Concept Plan, will be evaluated through the year 2035 (consistent with the horizon year of the current TSP).

For the current Oregon City TSP, vehicle trips were estimated based on the existing land use assumptions (see Table 1). These trips are included in the 2035 TSP Baseline scenario. For the TPR analysis, the Beavercreek Concept Plan was estimated to accommodate 750 more housing units and 4,095 more employees than the current TSP.

Vehicle trips that would be generated by the increased housing units and employees were estimated by applying the Metro Regional Travel Forecast model trip generation rates by land use type. Overall, the Beavercreek Concept Plan is expected to generate about 2,584 motor vehicle trips during the p.m. peak hour, or 925 more than what was assumed in the current TSP.

Table 1: Land Use Assumptions

Scenario	New Housing Units	New Employees	Forecasted Weekday PM Peak Hour Vehicle Trip End Growth
TSP Baseline (without Beavercreek Concept Plan)	355	1,639	1,659
Beavercreek Concept Plan	1,105	5,734	2,584
Change (With Beavercreek Concept Plan – Without Beavercreek Concept Plan)	**+750**	**+4,095**	**+925**

2035 Motor Vehicle Operations

Future p.m. peak hour traffic forecasts were prepared for two land use scenarios, including:

- **TSP Baseline (without Beavercreek Concept Plan) –** This scenario assumes the land use within the Beavercreek Concept Plan will be built out consistent with the prior TSP analysis. It includes the improvement projects listed in the "Baseline Transportation System Improvements" section.
- **Beavercreek Concept Plan –** This scenario assumes full buildout of Beavercreek Concept Plan area. It includes the improvement projects listed in the "Baseline Transportation System Improvements" section.

With each of these two land use scenarios, a sensitivity option was tested that assumed the planned segment of Holly Lane between Maple Lane Road and Thayer Road would not be completed. The forecast will include 2035 volumes to match the TSP horizon year.

Baseline Transportation System Improvements

The starting point for the future operations analysis relied on a list of street system improvement projects contained in the Oregon City TSP. These projects represent only those that are expected to be reasonably funded, and therefore can be included in the Baseline scenario. Many of the projects in the Beavercreek Concept Plan area will be constructed as private development occurs. Others will be

constructed as part of public infrastructure improvements or concurrent with adjacent private developments. The improvements assumed include:

- Roundabout installation at the **Beavercreek Road/Glen Oak Road** intersection (TSP Project D39)
- Roundabout installation at the **Beavercreek Road/Loder Road** intersection (TSP Project D44)
- **Meyers Road** extension from OR 213 to High School Avenue (TSP Project D46)
- **Meyers Road** extension from Beavercreek Road to the Meadow Lane Extension (TSP Project D47)
- **Clairmont Drive** extension from Beavercreek Road to the Holly Lane South Extension (TSP Project D54)
- **Glen Oak Road** extension from Beavercreek Road to the Meadow Lane Extension (TSP Project D55)
- **Timbersky Way** extension from Beavercreek Road to the Meadow Lane Extension (TSP Project D56)
- **Holly Lane** extension from Thayer Road to the Meadow Lane Extension (TSP Projects D58 and D59)
- **Meadow Lane** extension to the Urban Growth Boundary, north of Loder Road (TSP Projects D60 and D61)
- **Loder Road** extension from Beavercreek Road to Glen Oak Road (TSP Project D64)
- **Beavercreek Road** improvements from Clairmont Drive to the Urban Growth Boundary, south of Old Acres Lane (TSP Projects D81 and D82)
- **Loder Road** improvements from Beavercreek Road to the Urban Growth Boundary (TSP Project D85)

Intersection Operations

During the evening peak hour, all study intersections operate within adopted mobility targets under all scenarios after assuming the baseline transportation system improvements from the TSP. The traffic analysis results are summarized in a separate memorandum.

TPR Findings

Overall, the current TSP includes adequate transportation system projects for the Beavercreek Concept Plan area to comply with the Transportation Planning Rule (TPR). All transportation impacts as a result of the additional housing units and employees in the Beavercreek Concept Plan area are

addressed by current TSP projects. This includes the widening of Beavercreek Road through the project area to a 3 or 5-lane cross-section (to be determined in separate memorandum) and intersection control improvements to the Loder Road and Glen Oak Road intersections with Beavercreek Road (roundabout or traffic signals, to be determined in separate memorandum).

Beavercreek Road Concept Plan - Zoning and Code Amendments
Consolidated Comment Tracker January 2019-June 2019

Transportation	
Ensure that traffic flow is efficient and safe around the BRCP area (roundabouts or traffic signals), considering school drop off/pickup, different uses (e.g. Industrial-type traffic near residential areas) and trips generated outside the study area. Concern about emergency access to the area.	Currently preparing an assessment of transportation facilities and will present preliminary findings on road capacity and traffic control at the June 10 public meeting.
If Beavercreek Road is widened, will it be expanded to the east?	Efforts are made to expand equally in each direction from the road center line, assuming street rights-of-way allow for it.
How many road connections will be made to Beavercreek Road?	Currently the only road connections will be at existing intersections (Loder Road, Meyers Road and Glen
Require transportation infrastructure improvements before development begins.	We are considering the timing of infrastructure as development comes online. Development applications are required to build infrastructure to support their development. There are state and local land use requirements that look at the proportionality a project has to the city's infrastructure network both on and offsite of a development proposal. In some cases, development can be required to provide an offsite improvement as a condition of development, other times, they pay system development fees that help pay for larger capital improvement projects. The city is also looking at ways we can apply for grants, or work with developers to create local improvement districts or advance finance districts to better coordinate the timing of infrastructure.
Meyer Road or Glen Oak as the main street? Meyer is the bigger street and closer to CCC and high school.	Will explore Main Street options and provide an opportunity for further discussion at the April 9 public meeting.
Ensure that there is adequate parking to accommodate uses without congestion, especially around residential areas, but this should be balanced with creating pedestrian-friendly environments, especially around the MUC. Will the City pursue or require structured parking in the Main Street or Mixed Use areas?	Oregon City Development Code OCMC 17.52 requires minimum and maximum parking standards per use. It is not anticipated that this project will recommend any revisions to those requirements. All new development in Oregon City requires parking to be located to the side or rear of commercial uses. The project team is currently looking at how to encourage or require parking to be located to the rear of the commercial uses in the Glen Oak Mixed Use Center to better add in the pedestrian feel of the street and strategies for customers to minimize customers using the on-street parking in nearby neighborhoods.
Pursue adequate transit service in the BRCP will require coordination between jurisdictions to properly plan and secure funding.	City participates in ongoing conversations with TriMet, Clackamas County, Clackamas Community College, and Public Works about transit service. Ultimately, mass transit service is driven by population/jobs demand, though shuttle services can be more flexible.
Ensure adequate infrastructure and amenities to support safe bike and pedestrian movement within the BRCP, especially crossings of Beavercreek Road.	Concept Plan includes provisions for multi-modal transportation options which will be implemented through this Zoning and Code Amendments process. Certain streets will contain on-street or off-street bike paths and connect with a larger bicycle system as identified in the Transportation System Plan. Commercial and multi-family uses will also have mike parking requirements.
Parks, Trails and Open Space	
BRCP should ensure safe and aesthetic walking paths and trails to support pedestrians, especially school children.	Concept Plan includes provisions for sidewalks and off-street pathways which will be implemented through the Zoning and Code Amendments process. The design of Beavercreek Road and zoning should consider the proximity to the high school and potentially a future school south of the plan area.
Adequate green spaces, open spaces, and recreational areas, especially in the industrial area, are desirable.	Provisions will be made for open spaces, parks and trails throughout the Concept Plan area. The plan calls for parks and existing requirements in the code identify buffers around streams and wetlands and steep slopes.
When will proposed parks and trails be developed?	Land acquisition for parks will occur as part of development reviews. The construction of the parks is based on the Community Services (Parks Department) Capital Construction timeline/prioritization.
Residential	
Prioritize residential before other types of development.	Once the area had been rezoned, the timing and location of development will be left to the market and property owner to decide when to develop their property. The City will not do any development of homes or businesses. However, any development is required to make sure the proper infrastructure is in place to support proposed development.
Residents would like to see high-quality and well-designed residential units with sufficient open space and street trees and a maximum height of 3 stories.	The design team are looking at design standards, open space, landscaping and building height limits which will be addressed through this Zoning and Code Amendments process.
Support a broad variety of housing types, denser in the West Mixed Use area.	The plan envisions a higher density in the West Mixed Use area. Project staff is looking at code amendments to implement a mix of commercial and residential uses.
Non-residential uses in the residential area should have impacts on the surrounding neighborhood that are consistent with the zone. These impacts are lower in residential-only areas and increase when approaching non-residential zones. Prefer live/work and home occupations.	The design team is looking at identifying an appropriate type of non-residential uses and ways to mitigate their impacts.
Include affordable housing and alternative housing options in the BRCP.	Affordable housing is housing which is deemed affordable to those with a median household income or below as rated by the national or local recognized housing affordability index. Affordable housing development is generally done through cooperation with government and non-profit funding to subsidize the rental or ownership cost of a unit. The zoning code regulates uses and does not regulate the pricing of the housing. What zoning codes can do, is allow multiple types of housing to be allowed in a zone such as duplexes, cluster housing and row housing which can offer more option to the consumer than just a single family house. The City Commission is currently considering adding these types of uses to residential zones citywide. Visit https://www.orcity.org/planning/housing-and-other-development-and-zoning-code-amendments to lean more about this process. The plan will consider a variety of housing types which may have less expensive housing options.
Prefer sidewalks over alleys. Alleys create more burdens than benefits.	In areas where alleys are required by current city code-sidewalk are also required in the front of the properties. The City Commission is currently considering if existing alley requirements should remain.
There should be a gradual tapering of density at the edge of residential areas. Buffers with surrounding areas should primarily be setbacks or open space, not a physical wall or barrier. There should be more than 25 feet between residential and industrial uses. What types of barriers/screening between industrial and residential uses are allowed? Cyclone fencing? Concrete wall? Trees along the wall? A rotating park? Maintain row of trees that run east-west along the edge of the golf course. Consider integrating a bike/pedestrian trail into the landscaping setback along the southern perimeter to make better use of the space and keep it active.	Increased buffering and screening requirements are currently being looked at for development at the edge of the Beavercreek Road Concept Plan boundary when abutting residential uses. Requiring a tapering of density at the edge of a project is often more difficult and initially envisioned through a clear and objective code process and still meet the other required city goals of block length, lot size and street connectivity. The Concept plan zones identify a general tapering of densities.
Concern about compatibility of R-2 development along the BRCP southern boundary. Especially in regards to natural resources/stormwater/flooding.	In response to comments during the public process, the revised June Zoning Map slightly shifted the multi family portions near the south border. The total number of projected housing units remain the same.

Cottage Industries. New homes in BRCP area might be too small to incorporate square footage for cottage industries, like a large shop. Concerns about noise impacts from more industrial-type uses, such as woodworking. Consider whether potential impacts from cottage industries, like on-street parking and traffic are compatible with residential uses. Cottage industry uses might be better located in mixed-use and industrial areas.	Through the public engagement process, we heard from many folks that were concerned about allowing additional uses in the home occupation code for the Beavercreek Concept Plan Area, though there was some support for the concept. The Concept Plan calls for allowing job creation in residential zones. During the 2016 re-adoption of the Concept Plan, the City Commission made a finding that the existing city-wide home occupation code allows for a breath of opportunities for people to start starter businesses in their residences. As part of the hearings process, staff will look for additional guidance from the Planning and City commission on this topic.
Maintain access to Old Acres Lane for existing residents to use. Access should not be shared with BRCP area development.	Old Acre Road is a private driveway that can restrict public access- No part of the Concept Plan area will connect to Old Acres Road.
Mixed Use Center	
The MUC should consist of small, easily accessible shops with residential on the 2nd and 3rd floors if the market allows it.	The MUC zone allows for this type of use, but also allows properties to be developed as exclusively residential or commercial. The project team is currently looking at the balance of how much minimum commercial or residential to require for these area to ensure that the code does not over or underregulate the vision.
Smaller scale development. Do not require retail. Permit ground floor residential.	The MUC zone allows for this type of use, but also allows properties to be developed as exclusively residential or commercial. The project team is currently looking at the balance of how much minimum commercial or residential to require for these area to ensure that the code does not over or underregulate the vision.
Street design in the MUC should use landscaping, lighting, to ensure a pleasant pedestrian environment.	The project team is looking at what type of dimensional standards and enhanced landscape requirements, beyond what is already required city-wide, will be needed to ensure a pedestrian-friendly, walkable commercial node. The concept plan identifies some street design.
10,000 square foot limit seems appropriate for anchor retail spaces or stand-alone buildings. Square footage limit should be large enough to accommodate a non-big box grocery store (Trader Joes, Zupans). Consider a 6,000 to 8,000 square foot range for the other tenant spaces.	The city has generally not prescribed that level of detail between varying permitted uses. The proposed code looks at minimizing the size of each building to ensure that the massing of the neighborhood commercial area is complementary to and compatibly with the neighboring residential uses. The NC zones proposes the following language: All uses permitted per OCMC 17.24.020.A and B, including grocery stores, are limited to a maximum footprint for a standalone building with a single store or multiple buildings with the same business not to exceed ten thousand square feet, unless otherwise restricted in this chapter.
Upper-level residential should be allowed. In addition to traditional apartments, incorporate affordable units for underserved populations (transitional housing, micro housing/dormitory housing.)	Upper level residential is allowed in the MUE and NC Zones when coupled with commerical development.
Provide parking lots near the Main Street area to support local businesses. Ensure parking for a grocery store doesn't occupy all available parking.	Development applications will be required to provide for their own off-street parking per their specific use. The Plan and city encourges shared lots for ease of acess but each use must be accounted for.
People will not walk or take shuttles from the Industrial area to the Main Street area if there is ample parking.	As part of the public engagement process, staff and the project consultant team looked at the possibility of moving the Main Street area to the Meyers Road intersection to bringing it closer to employment locations. However, there was a pre-existing multi-family project located at the intersection of Meyers Road and Beavercreek Road that is currently in the Building Permit review process. This limited the ability to move the Main Street area of the Concept Plan.
Industrial	
Uses in the Industrial area should minimize impacts on adjacent residential areas through uses that are quiet, clean, and minimize pollution. There should be adequate buffers and transitions to other zones.	The project team is looking at ensuring uses with outside components be required to obtain a conditional use permit or be limited in scope and ensure adequate landscape buffering from abutting residential uses.
Focusing residential and mixed-use zoning south of Loder Rd and employment/business zoning north of Loder. There are many physical barriers to development south of Loder Road.	We have heard from some property owners south of Loder Road that this a concern coupled with the location of the existing lot lines and proposed street locations and natural features. There may be an opportunity to slightly tweak the proposed zoning map to address these concerns, but the final proposed zoning map will need to show compliance with the goals of the Concept Plan and projected housing and job targets. We are working with the owners on this issue and will provide more updates at the April 9, 2019 public meeting.
Avoid allowing marijuana-related activity in the industrial area, due to the nearby schools and family housing.	This project does not anticipate revising the existing city-wide marijuana regulation, which can be found at the following link https://www.orcity.org/planning/marijuana-regulation-oregon-city.
Can the areas under the power lines be developed? How many acres of the total are subject to power line restrictions?	No new buildings can be contructed under the powerlines. Outdoor storage, predestrian acessways and parking are all allowed under the easments.
Do not make the area comfortable for transients. Specifically, how to address area behind golf course to back of Thayer and Loder roads.	This is not a concern that can be addressed through the zoning process. Oregon City has, however, created a homeless liaison officer position. This position works with residents, homeowners, and business
What are the goals and restrictions for targeting certain industries? Define targeted jobs clearly; what type of business and give examples. Do not restrict industries yet. Target jobs to high school kids transitioning to the work force.	While the Beavercreek Road Concept Plan envisions green or green technology type of businesses as the optimal tenant, the zoning code is not really the tool to regulate specific sectors of businesses or number of employees. Planning staff and the consultant team worked to create general zoning designation that are consistent with existing city-wide zoning use designations. If the city wants to encourage green
Do not place size limitations. Focus on design. Use clear, easy-to-find and understand design standards.	The project team is looking at proposing a code that touches on uses, sizes and some design aspects. Our goal is to not underregulate nor overregulate the product. Please stay involved and let us know if you think the proposed zoning code amendments achieved this goal or if it should be further amended.
25% is pretty restrictive for what can be stored outside.	One of the major goals of the Concept Plan is to bring jobs to Oregon City. Large outdoor storage areas (not parking lots) can greatly reduce the jobs/acre projections. Utilizing 25% of the building square footage as a ratio for outdoor storage seemed to be a reasonable compromise.
Is trucking allowed? How will freight to the industrial area be accommodated?	Freight needs, freight hours and freight turning radii needs will be included in the final street designs and
Is live/work space allowable in the Industrial area?	
Where will employees park?	Development applications will be required to provide for their own off-street parking per their specific use. The Plan and city encourges shared lots for ease of acess but each use must be accounted for.
Economic Development	
Commercial uses, including professional services and services that allow workers and students to meet their daily needs.	The existing MUE and MUC zones allow professional services.
Desire for small businesses/employment and building footprints, but balance with attracting larger employers. Target local businesses in mixed use area, but anchor stores should be national chains that people are familiar with and that are well-received (Chipotle, Trader Joes, etc.)	We have heard a need for a mix of sizing of commercial and industrial uses. Some of these goals can be minimally achieved by the zoning code. Others, are more aligned with economic development goals and programs that City Commission may employ to work collaboratively with property owners to achieve this mix.

Proactive and effective economic development to ensure vibrant economic activity and growth within the BRCP.	While this is a zoning code amendments process, any comments that relate to a need for larger city involvement in the development of the Concept Plan area will be forwarded to the Planning and City Commission through this comment matrix and any public comments that arise through the public hearing process later this summer. The Economic Development department has been working on a nearby Beavercreek Employment Area with a variety of stakeholders.
Land Use and Infrastructure	
What role do residents have in approving the Concept Plan or future development?	The Concept Plan was adopted as an ancillary document to the city's comprehensive plan by the City Commission at a Public Hearing in 2008 and readopted through a public hearing in 2016. These Beavercreek Road code amendments will need to show consistency with the adopted Concept Plan and will be adopted through a noticed public hearing before the Planning and City Commissions later this year. Once adopted, all new development will be processed through the city's land use process depending on the type of development requested: https://library.municode.com/or/oregon_city/codes/code_of_ordinances?nodeId=TIT17ZO_CH17.50ADPR_17.50.030SUDEKIPR
Use a fast permitting process, ensure infrastructure is readily available to serve development areas, and barriers to development are minimized.	The design team is considering which process development is subject to and the Public Works and Economic Development departments will be working together to consider larger infrastructure. Generally developers installs infrastructure needed to serve their development.
Analyze electricity capacity to serve new development since existing neighborhoods in the area already experience "brown-outs".	Coordination with private utilities occurs during the private development review process. Private utility providers such as power, phone and cable have been sent notice of this application.
Zone designations should be separated by streets, not individual property lines. What do the property owners of those properties think?	Street location provide general direction and are finalized at time of development. Staff tried to find a balance of utilitizing exisiting proeprty lines and antipcated road locations.
The East Mixed Use Neighborhood should be more of a square rather than strung out along Beavercreek Road itself. Move it further north and center it around the mixed-use areas including Main Street and the industrial	While that sounds like an intriguing idea, staff felt that it was too divergent from the adopted plan. Staff's direction was to implement the adopted plan and only amend as needed to implement the intent of the
Education	
The anticipated extension of Clackamas Community College provides significant opportunity for professional training and economic development.	We agree and encourage all property owners to work with Clackamas Community College and the city's Economic Development Department to look for opportunities to partner to help transition students to full time work. The uses allowed in the area will take this into consideration.
Ensure proper siting and ease of permitting for future schools.	In the 2008 Concept Plan process, the Oregon City School District determined that they did not need additional land within the concept plan boundaries. They do have a parcel of land located just south of the concept plan boundary, near Old Acres Road but is not being considered for construction in the short term. Development in the concept plan area will provide an opportunity for future connections with the school property.
Miscellaneous	
Be clear about what is meant by "conceptual" in terms of roadways and district boundaries. Consider changing it from a "plan" to a "guide".	Final roadway design will be addressed at the development application stage and will need to be consistent with the concept plan maps or provide an alternate design that meets or exceeds the intent of the adopted street map. The design team will make an effort to set the correct expectations.
The plan should include a mix of uses and amenities - they would be helpful to reduce traffic and in case of disaster.	We have heard a need for a mix of commercial uses. Some of these goals can be achieved by the zoning code. Others, are more aligned with economic development goals and programs that City Commission may employ to work collaboratively with property owners to achieve this mix.
Like Lake Oswego development.	We assume that this comment translates to "make it look nice". Zoning code and design standards can provide a template for how a private development could look. However, too detailed of standards can stifle creativity and sensitivity to a specific private parcel's market needs. The project team is trying to create a balance of not under or over-regulating the urban layout of the concept plan areas. We are identifying the major design goals of the Concept Plan and are trying to create code that requires these elements. As the draft code is released this spring and through the public hearing process, please let us know if this balance was achieved, or if you think there should be a different balance.
How to limit connections to a private street to the south.	Old Acres Road, located at the southern boundary of the Concept Plan, is a private road and new development in the Concept Plan area will not be able to utilize this connection unless previously allowed by the private property owners.
Manage density.	The density outlined in the Concept Plan is regulated by Title 11 which governs the Urban Growth Boundary process. This code ensures cities efficiently use land brought into the Urban Growth Boundary, which reduces the need to expand the growth boundary earlier than predicted. The density of dwelling units in the approved Beavercreek Road Concept Plan has been set to fall between 1,000 and 1,600 dwelling units. A dwelling unit is defined as one single-family house, a townhouse unit, or an apartment unit in a multi-family building. It does not differentiate between the number of bedrooms. Development of these units will be completed over time through the subdivision (single-family or townhomes) or Site Plan and Design Review process (multi-family) based on the market and property owner direction. The goal of the code amendment process is to adopt zoning codes that can ensure that the area develops dwelling units over time that fall within the adopted 1,200-1,600 threshold. The placement of the densities and design will help create a community people like while minimizing
Include art.	Public art is not a goal or requirement of the concept plan, and therefore does to align with the aims of this zoning amendments project (provide zoning code amendments to allow private development to build within the Concept Plan boundary). However, as development moves forward, there may be opportunities to partner with local art organizations such as the Clackamas County Art Alliance https://clackamasartsalliance.org/ for public art in city open spaces or in private development.