



MITIGATED DETERMINATION OF NON-SIGNIFICANCE

Kingswood Apartments

Permit No. TUM-21-1627

January 24, 2023

Description of Proposal: 181-unit apartment building with associated open space, parking, landscaping and infrastructure.

Applicant: Fourth Street Housing, LLC, Glenn Wells, PO Box 159, Arlington, WA 98223.

Representative: Glenn Wells, 324 West Bay Dr. Ste 214, Olympia, WA 98502

Location of Proposal: 2.9 acre parcel at the east end of Bishop and Odegard Roads adjacent to Tyee Drive in Section 03, T17, 2W. Parcel # 12703240100.

Lead agency: City of Tumwater, Community Development Department.

The lead agency for this proposal has determined that, as conditioned, does not have a probable significant adverse impact on the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead-agency. This information is available to the public on request.

This MDNS assumes that the applicant will comply with all City ordinances and development standards governing the type of development proposed, including but not limited to, street standards, storm water standards, high groundwater hazard areas ordinance standards, water and sewer utility standards, critical areas ordinance standards, tree protection standards, zoning ordinance standards, land division ordinance standards, building and fire code standards, and level of service standards relating to traffic. These ordinances and standards provide mitigation for adverse environmental impacts of the proposed development.

Condition of Approval for mitigating environmental impacts:

Findings:

The Tumwater Boulevard/I-5 northbound ramps intersection currently operates at LOS F during both peak periods for the northbound left-turn movement. The project is projected to add two trips to this intersection. The City has recently developed a SEPA improvement project for the Tumwater Boulevard/I-5 interchange that include intersection improvements at the northbound I-5 ramps intersection, with a peak hour per trip impact fee of \$4,219 for each trip entering the interchange area.

Mitigation Measures:

1. Prior to issuance of the Building Permit:
 - a. Construct a roundabout at the northbound Interstate 5 On/Off Ramp and Tumwater Boulevard intersection; or
 - b. Voluntarily pay a mitigation fee of \$4,219 per peak trip generated by this project under RCW 82.02.020 to be used as described herein:
Tumwater Boulevard/I-5 Interchange: The City's planned transportation improvements at the Tumwater Boulevard/I-5 interchange include converting the interchange to a roundabout diamond interchange by replacing the southbound on/off ramp signal and northbound stop controlled intersections with roundabouts.

This MDNS is issued under WAC 197-11-350; the lead agency will not act on this proposal for 14 days from the date below. Comments must be submitted no later than February 7, 2023, by 5:00 p.m.

Date: January 24, 2023

Responsible Official:



Michael Matlock, AICP
Community Development Director

Contact person: Alex Baruch, Associate Planner
555 Israel Road SW
Tumwater, WA 98501
abaruch@ci.tumwater.wa.us

Appeals of this MDNS must be made to the City of Tumwater Community Development Department, no later than February 14, 2023, by 5:00 p.m. All appeals shall be in writing, be signed by the appellant, be accompanied by a filing fee of \$175, and set forth the specific basis for such appeal, error alleged and relief requested.



CITY OF TUMWATER
555 ISRAEL RD. SW, TUMWATER, WA 98501

Email: cdd@ci.tumwater.wa.us
(360) 754-4180

TUM-____-____
DATE STAMP
RECEIVED BY: _____

Any person proposing to develop in the incorporated limits of the City of Tumwater is required to submit an environmental checklist unless the project is exempt as specified in WAC 197-11-800 (Categorical Exemptions) of the State Environmental Policy Act Rules. **SUBMITTAL REQUIREMENTS** are as follows:

1. **A COMPLETE ENVIRONMENTAL CHECKLIST.** If the project is located within the Port of Olympia property, the checklist must also be signed by a representative of the Port.
2. **FEE OF \$880.00 TO BE PAID UPON SUBMITTAL.** This includes the Public Notice fee.
3. **NAME AND ADDRESS LIST OF PROPERTY OWNERS WITHIN 300 FEET OF THE SUBJECT PROPERTY.**

SEPA ENVIRONMENTAL CHECKLIST
UPDATED 2015

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants: [\[help\]](#)

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impacts.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals: [\[help\]](#)

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead

agency may exclude (for non-projects) questions in Part B - Environmental Elements – that do not contribute meaningfully to the analysis of the proposal.

A. Background [\[help\]](#)

- 1. Name of proposed project, if applicable: [\[help\]](#)

- 2. Name of applicant: [\[help\]](#)

- 3. Address and phone number of applicant and contact person: [\[help\]](#)

- 4. Date checklist prepared: [\[help\]](#) _____

- 5. Agency requesting checklist: [\[help\]](#)

- 6. Proposed timing or schedule (including phasing, if applicable): [\[help\]](#)

- 7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [\[help\]](#)

- 8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [\[help\]](#)

- 9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [\[help\]](#)

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Tree protection
plan

10. List any government approvals or permits that will be needed for your proposal, if known. [\[help\]](#)

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) [\[help\]](#)

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [\[help\]](#)

B. ENVIRONMENTAL ELEMENTS [\[help\]](#)

1. Earth

a. General description of the site [\[help\]](#)
 Flat Rolling Hilly Steep Slopes Mountainous

Other: _____

b. What is the steepest slope on the site (approximate percent slope)? [\[help\]](#)

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c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [\[help\]](#)

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [\[help\]](#)

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [\[help\]](#)

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [\[help\]](#)

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [\[help\]](#)

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [\[help\]](#)

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed?

If any, generally describe and give approximate quantities if known. [\[help\]](#)

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- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [\[help\]](#)

- c. Proposed measures to reduce or control emissions or other impacts to air, if any: [\[help\]](#)

3. **Water**

- a. Surface Water: [\[help\]](#)

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. [\[help\]](#)

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. [\[help\]](#)

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [\[help\]](#)

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and

approximate quantities if known. [\[help\]](#)

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [\[help\]](#)

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. [\[help\]](#)

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [\[help\]](#)

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [\[help\]](#)

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow?

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Will this water flow into other waters? If so, describe. [\[help\]](#)

- 2) Could waste materials enter ground or surface waters? If so, generally describe. [\[help\]](#)

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

- d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

4. **Plants** [\[help\]](#)

- a. Check the types of vegetation found on the site: [\[help\]](#)
deciduous tree: alder, maple, aspen, other
evergreen tree: fir, cedar, pine, other
shrubs
grass
pasture
crop or grain
orchards, vineyards or other permanent crops.
wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
water plants: water lily, eelgrass, milfoil, other
other types of vegetation

- b. What kind and amount of vegetation will be removed or altered? [\[help\]](#)

- c. List threatened and endangered species known to be on or near the site. [\[help\]](#)
The US Fish and Wildlife database maps Golden Paintbrush to be on or near the project site (<https://ecos.fws.gov/ipac/location/index>).

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- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [\[help\]](#)

- e. List all noxious weeds and invasive species known to be on or near the site.

5. Animals

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include: [\[help\]](#)
- birds: hawk, heron, eagle, songbirds, other:
 - mammals: deer, bear, elk, beaver, other:
 - fish: bass, salmon, trout, herring, shellfish
 - other:

- b. List any threatened and endangered species known to be on or near the site. [\[help\]](#)

- c. Is the site part of a migration route? If so, explain. [\[help\]](#)

- d. Proposed measures to preserve or enhance wildlife, if any: [\[help\]](#)

- e. List any invasive animal species known to be on or near the site.

6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [\[help\]](#)

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AGENCY USE ONLY**

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [\[help\]](#)

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: [\[help\]](#)

7. **Environmental health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. [\[help\]](#)

1) Describe any known or possible contamination at the site from present or past uses.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

4) Describe special emergency services that might be required.

5) Proposed measures to reduce or control environmental health hazards, if any:

b. **Noise**

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [\[help\]](#)

Traffic from nearby freeway and roads would be present along with noise from nearby residential areas. These sources are not anticipated to affect the project.

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2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. [\[help\]](#)

3) Proposed measures to reduce or control noise impacts, if any: [\[help\]](#)

8. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [\[help\]](#)

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [\[help\]](#)

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

c. Describe any structures on the site. [\[help\]](#)

d. Will any structures be demolished? If so, what? [\[help\]](#)

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Abide by noise ordinance requirements.

- e. What is the current zoning classification of the site? [\[help\]](#)

- f. What is the current comprehensive plan designation of the site? [\[help\]](#)

- g. If applicable, what is the current shoreline master program designation of the site? [\[help\]](#)

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [\[help\]](#)

- i. Approximately how many people would reside or work in the completed project? [\[help\]](#)

- j. Approximately how many people would the completed project displace? [\[help\]](#)

- k. Proposed measures to avoid or reduce displacement impacts, if any: [\[help\]](#)

- L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [\[help\]](#)

- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

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9. **Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [\[help\]](#)

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [\[help\]](#)

c. Proposed measures to reduce or control housing impacts, if any: [\[help\]](#)

10. **Aesthetics**

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [\[help\]](#)

b. What views in the immediate vicinity would be altered or obstructed? [\[help\]](#)

c. Proposed measures to reduce or control aesthetic impacts, if any: [\[help\]](#)

11. **Light and glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [\[help\]](#)

b. Could light or glare from the finished project be a safety hazard or interfere with views? [\[help\]](#)

c. What existing off-site sources of light or glare may affect your proposal? [\[help\]](#)

**EVALUATION FOR
AGENCY USE ONLY**

Lighting shall meet ordinance requirements regarding glare and fixture type.

- d. Proposed measures to reduce or control light and glare impacts, if any: [\[help\]](#)

12. **Recreation**

- a. What designated and informal recreational opportunities are in the immediate vicinity? [\[help\]](#)

- b. Would the proposed project displace any existing recreational uses? If so, describe. [\[help\]](#)

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [\[help\]](#)

13. **Historic and cultural preservation**

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [\[help\]](#)

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [\[help\]](#)

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [\[help\]](#)

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- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

14. **Transportation**

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [\[help\]](#)

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [\[help\]](#)

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [\[help\]](#)

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [\[help\]](#)

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [\[help\]](#)

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles).

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Improvements on
Type also shown on
plan.

What data or transportation models were used to make these estimates? [\[help\]](#)

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe:

- h. Proposed measures to reduce or control transportation impacts, if any: [\[help\]](#)

15. **Public services**

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [\[help\]](#)

- b. Proposed measures to reduce or control direct impacts on public services, if any. [\[help\]](#)

16. **Utilities**

- a. Circle utilities currently available at the site: [\[help\]](#)
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [\[help\]](#)

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C. Signature [\[HELP\]](#)

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: *Dynell E. Bradley*

Name of signee: _____

Position: _____

Agency/Organization: _____

Date Submitted: _____

D. Signature – Property Owner’s Review, Port of Olympia (if applicable)

I certify that I have reviewed the above environmental checklist prepared by the applicant and that the project is consistent with the tenant’s lease for Port property. The Port’s comments have been incorporated in the document as submitted or as noted.

Port of Olympia – Please Print: _____

Port of Olympia – Signature: _____

Date Submitted: _____

E. CITY OF TUMWATER

Reviewed by: _____

Date: _____

F. Supplemental sheet for nonproject actions [\[help\]](#)
(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

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When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

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1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local state, or federal laws or requirements for the protection of the environment.

**EVALUATION FOR
AGENCY USE ONLY**

KINGSWOOD

CITY OF TUMWATER, WASHINGTON

MAZAMA POCKET GOPHER SCREENING REPORT

Prepared By:



Curtis Wambach, M.S.
Senior Biologist and Principal



28 October 2021

360-790-1559

www.envirovector.com

EnviroVector

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Olympia, WA 98502

Phone: (360) 790-1559
Email: curtis@envirovector.com



28 October 2021

Glenn Wells

Reference: Kingswood Tyee Drive SW
Subject: Mazama Pocket Gopher Screening Report

Dear Client:

At your request, EnviroVector has prepared this report to satisfy City of Tumwater requirements for Mazama pocket gopher screenings on the 2.9-acre subject property located on Tyee Dr SW, Tumwater, WA (**Figure 1; Table 1**). The City asked for one (1) additional gopher screening in 2021.

Table 1. Parcels Comprising Subject Property

No#	Property Address	Parcel Number	Property Size (Acres)
1	---	12703240100	2.9
1 Parcel	Total Size		2.9 acres

Permitting Jurisdiction is City of Tumwater.

1.0 INTRODUCTION

The Mazama pocket gopher is a Federally Threatened species protected under the Endangered Species Act and the City of Tumwater Code. Mazama pocket gopher screenings were performed by a qualified biologist certified by the US Fish and Wildlife Service (USFWS) for the purpose of satisfying the City of Tumwater (July 2018) Mazama Pocket Gopher Screening Protocol (**Appendix E**).

The City of Tumwater has determined that a Mazama pocket gopher screening is necessary to comply with City of Tumwater Code and the Endangered Species Act.

2.0 METHODOLOGY

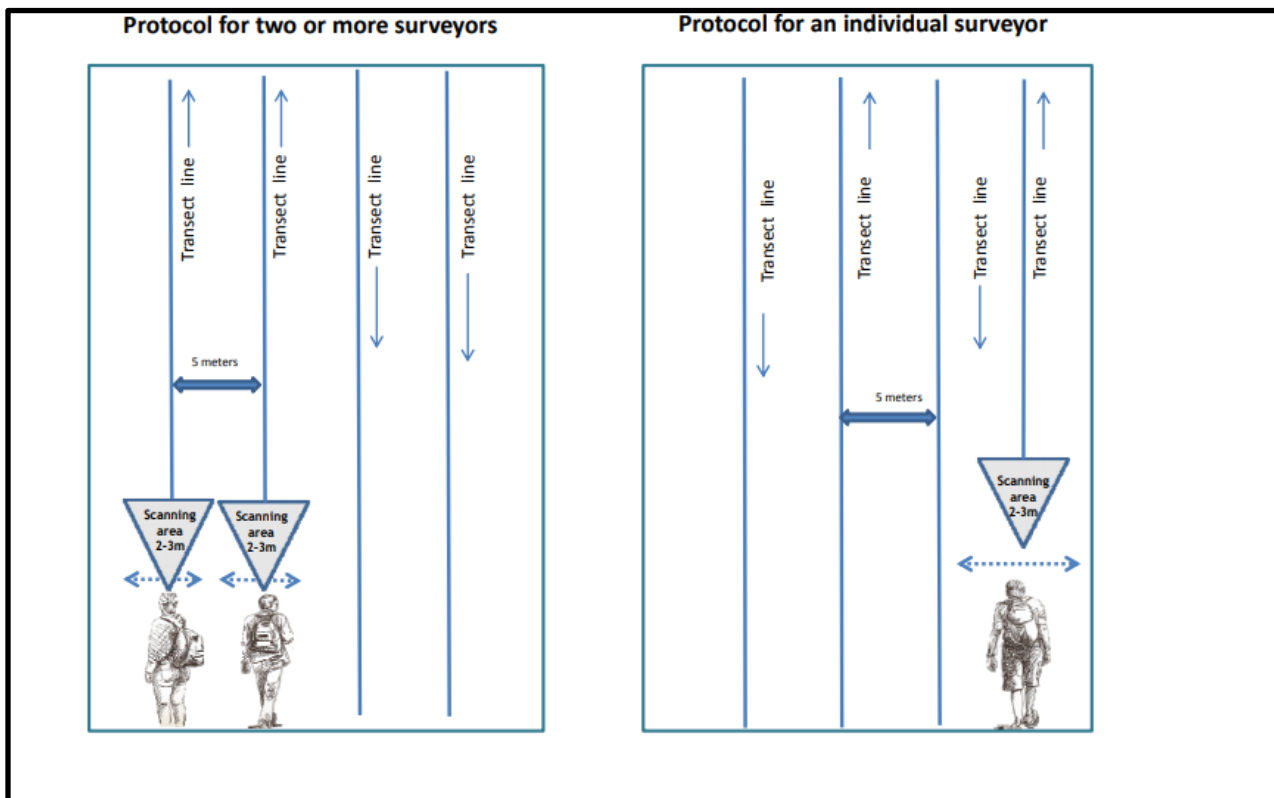
The Mazama pocket gopher screening was performed on 16 September 2020, 27 October 2020, and 28 October 2021 for three (3) site visits at the request of the City of Tumwater. The Mazama pocket gopher screenings is in compliance with the City of Tumwater (July 2018) Mazama Pocket Gopher Screening Protocol (**Appendix E**). The screening was performed within the USFWS prescribed survey window (June 1 through October 31).

In compliance with the USFWS and City of Tumwater (2018) Mazama Pocket Gopher Screening Protocols:

- The study has occurred during the prescribed work window of June 1 to October 31.
- A qualified biologist performed the screenings that has been trained and certified by the USFWS.
- The entire property was evaluated, not just the project footprint.
- The site was visited three (3) times at least thirty (30) days apart the request of the City.
- Data was recorded on datasheets and provided in **Appendix F**.
- The areas of the property covered under the screening survey is illustrated in **Figure 2**.
- The ground was easily visible.

The site evaluation was conducted utilizing USFWS recommended protocol for one (1) surveyor (**Insert 1**). The search pattern had been performed along five (5) meter transects, including brushy and treed areas, examined for any evidence of mounding activity created by the Mazama pocket gopher.

Insert 1. Transect Illustrations



The detailed field methodology is in compliance with the USFWS Site Inspection Protocol and Procedures: Mazama Pocket Gopher as follows:

1. The survey crew orients themselves with the layout of the property using aerial maps and strategizes their route for walking through the property.
2. Start GPS to record survey route.
3. Walk the survey transects methodically, slowly walking a straight line and scanning an area approximately 2-3 meters to the left and right as you walk, looking for mounds. Transects should be no more than five (5) meters apart when conducted by a single individual.
4. If the survey is performed by a team, walk together in parallel lines approximately 5 meters apart while you are scanning left to right for mounds.
5. At each mound found, stop and identify it as a MPG or mole mound. If it is a MPG mound, identify it as a singular mound or a group (3 mounds or more) on a data sheet to be submitted to the City.
6. Record all positive MPG mounds, likely MPG mounds, and MPG mound groups in a GPS unit that provides a date, time, georeferenced point, and other required information in County GPS data instruction for each MPG mound. Submit GPS data in a form acceptable to the City.
7. Photograph all MPG mounds or MPG mound groups. At a minimum, photograph MPG mounds or MPG mound groups representative of MPG detections on site.
8. Photos of mounds should include one that has identifiable landscape features for reference. In order to accurately depict the presence of gopher activity on a specific property, the following series of photos should be submitted to the City:
 - a. At least one up-close photo to depict mound characteristics
 - b. At least one photo depicting groups of mounds as a whole (when groups are encountered).
 - c. At least one photo depicting gopher mounds with recognizable landscape features in the background, at each location where mounds are detected on a property
 - d. Photos can be taken with the GPS unit or a separate, camera, preferably a camera with locational features (latitude, longitude)
 - e. Photo point description or noteworthy landscape or other features to aid in relocation. Additional photos to be considered
 - f. The approximate building footprint location from at least two cardinal directions.
 - g. Landscape photos to depict habitat type and in some cases to indicate why not all portions of a property require gopher screening.
9. Describe and/or quantify what portion and proportion of the property was screened and record your survey route and any MPG mounds found on either an aerial or parcel map.
10. If MPG mounds are observed on a site, that day's survey effort should continue until the entire site is screened and all mounds present identified, but additional site visits are not required.

11. In order for the County to accurately review Critical Area Reports submitted in lieu of County field inspections the information collected in the field (GPS, data sheets, field notes, transect representations on aerial, etc.) shall be filed with the County. GPS information shall be submitted in a form approved by the County.

Soils known to be associated with the Mazama pocket gopher are listed in **Insert 2**.

Insert 2. Mazama pocket gopher soils

Table 1. Soils known to be associated with Mazama pocket gopher occupancy.

Mazama Pocket Gopher Preference	Soil Type
<p>More Preferred (formerly High and Medium Preference Soils)</p>	<p>Nisqually loamy fine sand, 0 to 3 percent slopes Nisqually loamy fine sand, 3 to 15 percent slopes Spanaway-Nisqually complex, 2 to 10 percent slopes Cagey loamy sand Indianola loamy sand, 0 to 3 percent slopes Spanaway gravelly sandy loam, 0 to 3 percent slopes Spanaway gravelly sandy loam, 3 to 15% slopes</p>
<p>Less Preferred (formerly Low Preference Soils)</p>	<p>Alderwood gravelly sandy loam, 0 to 3 percent slopes Alderwood gravelly sandy loam, 3 to 15 percent slopes Everett very gravelly sandy loam, 0 to 3 percent slopes Everett very gravelly sandy loam, 3 to 15 percent slopes Indianola loamy sand, 3 to 15 percent slopes Kapowsin silt loam, 3 to 15 percent slopes McKenna gravelly silt loam, 0 to 5 percent slopes Norma fine sandy loam Norma silt loam Spana gravelly loam Spanaway stony sandy loam, 0 to 3 percent slopes Spanaway stony sandy loam, 3 to 15 percent slopes Yelm fine sandy loam, 0 to 3 percent slopes Yelm fine sandy loam, 3 to 15 percent slopes</p>

3.0 BACKGROUND INFORMATION

3.1 Thurston County Geodatabase Soils

One (1) soil type was identified on the subject property, Nisqually loamy fine sand, 0 to 3% slopes, which is classified as a “More preferred” gopher soil (**Appendix B & C; Table 2**)

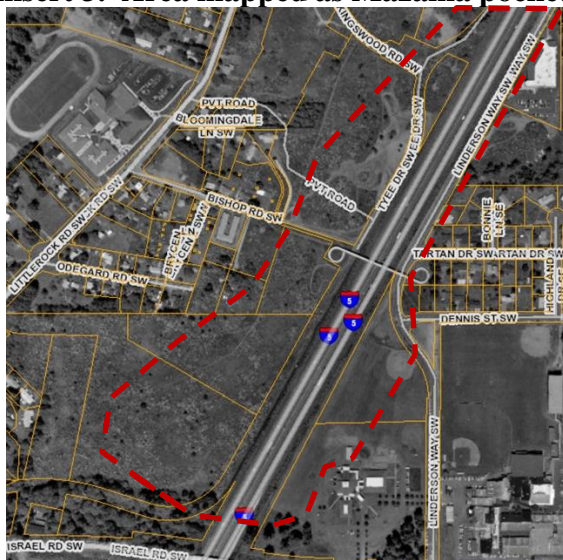
Table 2. Summary of Soil Preference

Soil Unit	Gopher Soil	Preference	Comments
Nisqually loamy fine sand, 0 to 3%	Yes	More preferred	Mapped on the entire property

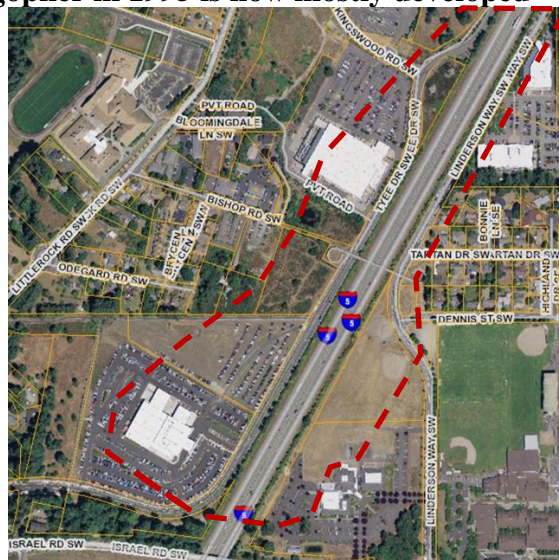
3.2 WDFW Priority Habitats and Species (PHS) Database

The Mazama pocket gopher has been mapped on the subject property by the WDFW Priority Habitats and Species (PHS) database (**Appendix D**). The source data was recorded by the Washington Department of Fish and Wildlife (WDFW) on 30 June 1995. Most of the area mapped as Mazama pocket gopher occurrence in 1995 is now Interstate 5, large box stores, car dealerships, large paved and hard surfaced parking lots, and other development, which brings the accuracy of this polygon in question (**Insert 3**). Even the original polygon was placed over Interstate 5, which cannot be accurate because gophers are not likely to occupy the paved roadway with interstate traffic.

Insert 3. Area mapped as Mazama pocket gopher in 1995 is now mostly developed



1996 most of polygon undeveloped



2018 most of polygon developed since 1996

4.0 FIELD RESULTS

4.1 Mazama Pocket Gopher Site Evaluation

No mounds characteristic of that created by the Mazama pocket gopher have been identified on the subject property during the 16 September 2020, 27 October 2020, and 28 October 2021 Mazama pocket gopher site screenings (**Table 2**). Little to no opportunity exists for future colonization of the subject property by this species because no accessible habitat corridors or landscape linkages occur that would facilitate movement between the site and other potential habitat patches in this fragmented patchwork of vacant lots. Surrounding properties consist of high intensity land uses, major roads, and Interstate 5, discouraging disbursement of the species and creating a barrier to re-colonization of the species on the subject property.

Mounds created by the Mazama pocket gopher: 1) are crescent or oddly-shaped, 2) contain a plugged tunnel opening that extends diagonally underground from the mound edge, 3) exhibit a fine texture, and are 4) typically in a scattered distribution.

Mole mounds have centrally-located tunnel entrances that extend vertically below the surface, blocky texture, an in-line distribution pattern, and have a conical shape.

Table 2. Summary of Results

Site Visit	Date of Visit	Gopher Occurrence Observed	Comments
1st	16 September 2020	No	No mounds characteristic of that created by the Mazama pocket gopher have been identified on the subject property
2 nd	27 October 2020	No	
3 rd	28 October 2021	No	

4.2 Mazama Pocket Gopher Habitat Evaluation

Extremely low-quality habitat occurs on the subject property with minimal opportunity for migration over landscape linkages or habitat corridors. Dominant vegetation on the subject property consists of European grasses and Scotch broom (*Cytisus scoparius*) with scattered non-native weedy species throughout the subject property (**Appendix A**). Land use on neighboring properties consists of large box stores, multi-family residential buildings, Interstate 5, major arterial roads, large paved and hard-surfaced parking lots, and other developments (**Appendix A**). No crescent-shaped gopher mounds with plugged, diagonal tunnels to the surface have been identified on the subject property (**Appendices A & F**).

5.0 CONCLUSION

This Mazama pocket gopher summary report was prepared to satisfy the City of Tumwater Mazama pocket gopher screening requirements and to comply with the City of Tumwater (July 2018) Mazama Pocket Gopher Screening Protocol.

The entire subject property was evaluated for the Mazama pocket gopher on 16 September 2020, 27 October 2020, and 28 October 2021 in accordance with the City of Tumwater (2018) Mazama Pocket Gopher Screening Protocol. The site evaluation was performed within the prescribed survey window (June 1 through October 31).

Gopher indicator soils are mapped on the subject property. The USFWS lists the soil type mapped on the subject property as a “More preferred” gopher indicator soil. In 1995, the WDFW drew a polygon on a map indicating that the Mazama pocket gopher may occur in the area including the subject property and the surrounding area including Interstate 5. The area within the polygon has been mostly developed since 1995, calling this old data in question of accuracy and relevance.

No mounds characteristic of the Mazama pocket gopher have been identified on the subject property.

If you have any questions or require further services, you can contact me at (360) 790-1559.

Sincerely,

A handwritten signature in black ink, appearing to read "Curtis Wambach". The signature is written in a cursive, flowing style.

Curtis Wambach, M.S.
Senior Biologist and Principal
EnviroVector

Figures

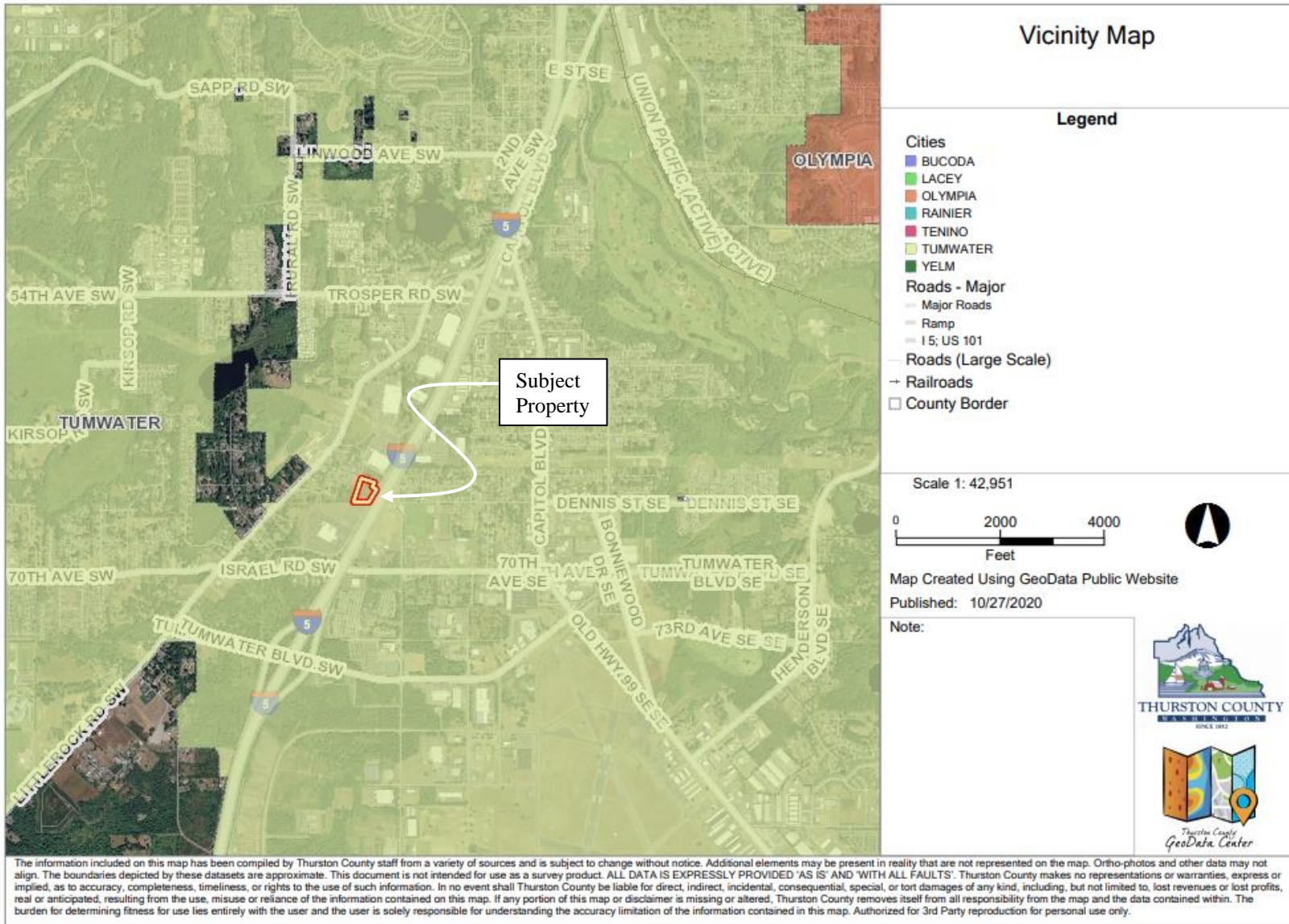


Figure 1 Vicinity Map

Mazama Pocket Gopher Screening Protocol

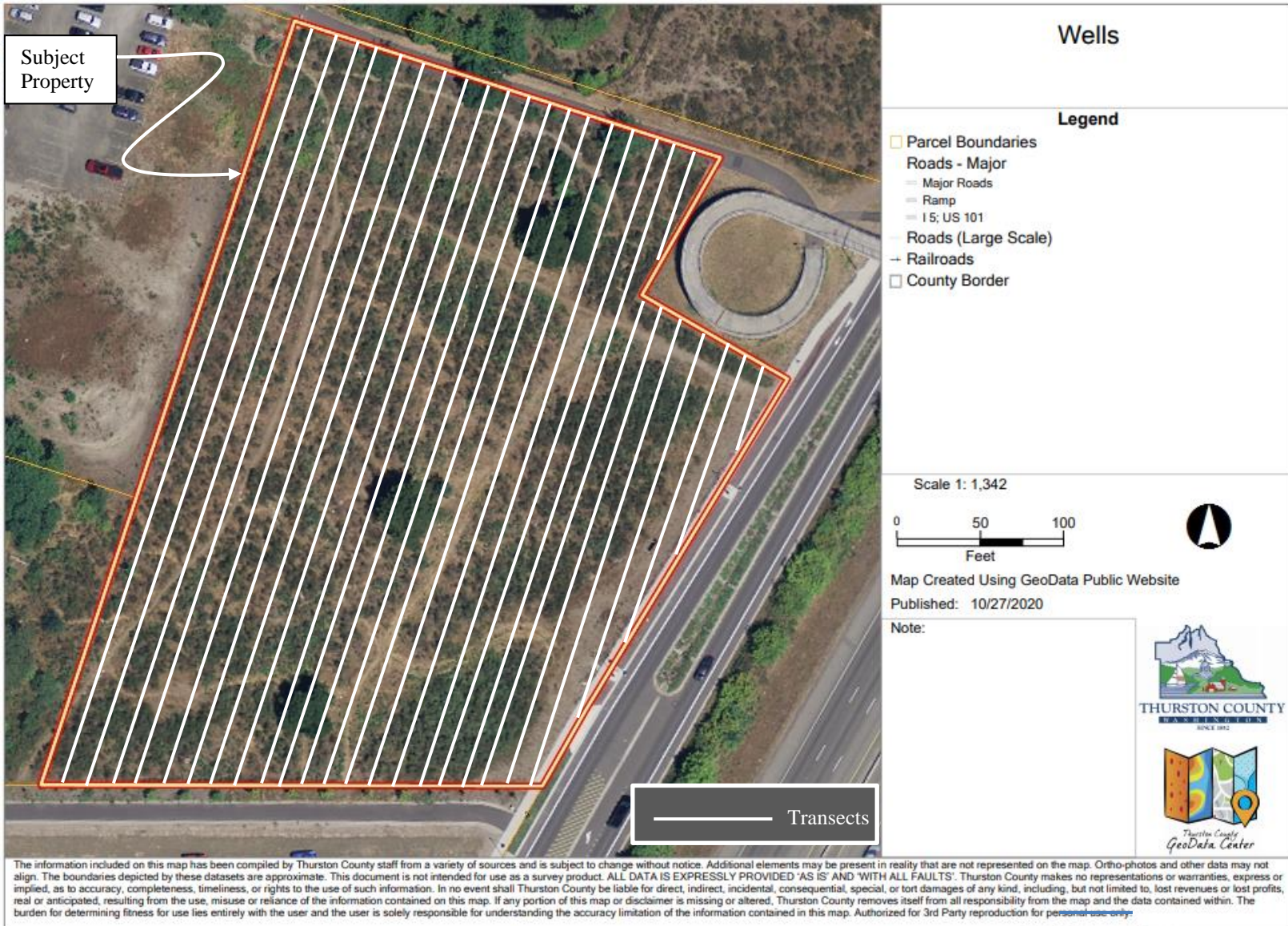


Figure 2 Subject Property

Mazama Pocket Gopher Screening Protocol

Appendix A

Photo Documentation

First Site Visit (16 September 2020)



Photo 1. Field dominated by European grasses and forbs



Photo 2. Residential properties bordering the site



Photo 3. Pedestrian structure bordering the subject property



Photo 4. Pedestrian structure bordering the subject property



Photo 5. Subject property bordered by Tyee Dr SW



Photo 6. Blocky texture typical of mole mounds



Photo 7. Centrally located vertical tunnel typical of moles



Photo 8. Centrally located tunnel and blocky texture

Second Visit (27 October 2020)



Picture 9. NE Property Corner



Picture 10. East boundary



Picture 11. Southern property boundary



Picture 12. Southern property boundary



Picture 13. Pines in middle of property



Picture 14. Mowed Scotch Broom



Picture 15. Western property boundary



Picture 16. Burned *Pinus contorta*



Picture 17. Area mowed no mounds of either species



Picture 18. Western property boundary

Third Visit (28 October 2021)



Picture 19. Area mowed no mounds of either species



Picture 20. Western property boundary



Picture 21. Area mowed no mounds of either species



Picture 22. Western property boundary



Picture 23. Area mowed no mounds of either species



Picture 24. Western property boundary



Picture 25. Area mowed no mounds of either species



Picture 26. Western property boundary



Picture 27. Area mowed no mounds of either species



Picture 28. Western property boundary



Picture 29. Area mowed no mounds of either species



Picture 30. Western property boundary

Appendix B

Thurston County Geodatabase

Soils



Wells Soils

- Legend**
- | | | |
|---------------------|--|---|
| Soils (USDA) | <ul style="list-style-type: none"> ■ Alderwood gravelly sandy loam, 0 to 3% slopes ■ Alderwood gravelly sandy loam, 15 to 30% slopes ■ Alderwood gravelly sandy loam, 3 to 15% slopes ■ Alderwood gravelly sandy loam, 30 to 50% slopes ■ Baldhill very stony sandy loam, 0 to 3% slopes ■ Baldhill very stony sandy loam, 15 to 30% slopes ■ Baldhill very stony sandy loam, 3 to 15% slopes ■ Baldhill very stony sandy loam, 30 to 50% slopes ■ Baumgard loam, 10 to 40% slopes ■ Baumgard loam, 40 to 65% slopes | <ul style="list-style-type: none"> ■ Baumgard-Pheeny Complex, 40 to 65% slopes ■ Baumgard-Pheeny complex, 10 to 40% slopes ■ Baumgard-Rock outcrop complex, 40 to 65% slopes ■ Bellingham silty clay loam ■ Boisfort silt loam, 20 to 40% slopes ■ Boisfort silt loam, 5 to 20% slopes ■ Bunker gravelly silt loam, 30 to 65% slopes ■ Bunker gravelly silt loam, 5 to 30% slopes ■ Bunker-Boisfort complex, 40 to 65% slopes ■ Cagey loamy sand ■ Cathcart gravelly loam, 15 to 35% slopes ■ Cathcart gravelly loam, 3 to |
|---------------------|--|---|

Scale 1: 2,684

0 100 200
Feet

Map Created Using GeoData Public Website
 Published: 10/27/2020

Note:

The information included on this map has been compiled by Thurston County staff from a variety of sources and is subject to change without notice. Additional elements may be present in reality that are not represented on the map. Ortho-photos and other data may not align. The boundaries depicted by these datasets are approximate. This document is not intended for use as a survey product. ALL DATA IS EXPRESSLY PROVIDED 'AS IS' AND 'WITH ALL FAULTS'. Thurston County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. In no event shall Thurston County be liable for direct, indirect, incidental, consequential, special, or tort damages of any kind, including, but not limited to, lost revenues or lost profits, real or anticipated, resulting from the use, misuse or reliance of the information contained on this map. If any portion of this map or disclaimer is missing or altered, Thurston County removes itself from all responsibility from the map and the data contained within. The burden for determining fitness for use lies entirely with the user and the user is solely responsible for understanding the accuracy limitation of the information contained in this map. Authorized for 3rd Party reproduction for personal use only.

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Appendix C

Thurston County Geodatabase

Gopher Indicator Soils

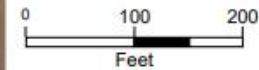


Wells Gopher Soils

Legend

- Gopher Indicator Soils
 - Less Preferred
 - More Preferred
- Parcel Boundaries
- Roads - Major
 - Major Roads
 - Ramp
 - I 5; US 101
- Roads (Large Scale)
- Railroads
- County Border

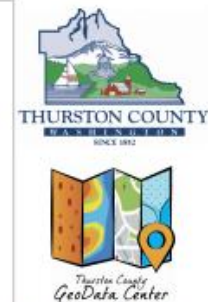
Scale 1: 2,684



Map Created Using GeoData Public Website

Published: 10/27/2020

Note:



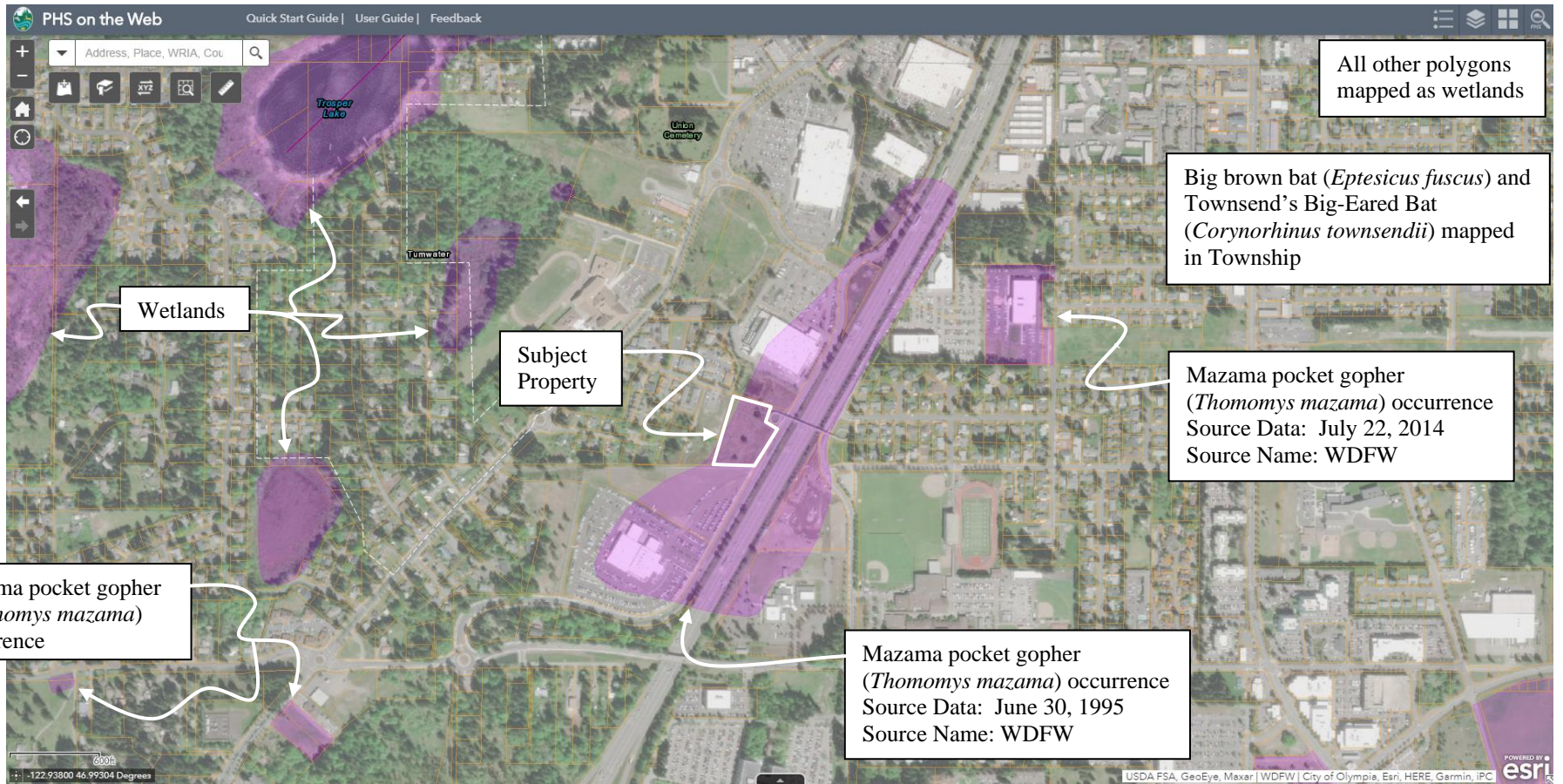
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Appendix D

WDFW

Priority Habitat Species (PHS)



Appendix E

City of Tumwater

Mazama Pocket Gopher

Screening Protocol

Appendix F

Datasheets

Sample Mazama Pocket Gopher Screening Field Form

Site Visit Date: 16 September 2020

If 2nd or 3rd site visit, date(s) of previous visits: 27 October 2020

Site Information	Parcel #: <u>#12703240100</u>	
	Site/Landowner: <u>Wells</u>	
How were the data collected? (circle the method for each)	Transect: <input checked="" type="radio"/> GPS Aerial	
	Mounds: <input checked="" type="radio"/> GPS Aerial	
	Notes:	
Field team names: (Note who filled out form and others conducting screening)	Curtis Wambach	
Others onsite (name/affiliation)		
Site visit # (CIRCLE all that apply)	<input checked="" type="radio"/> 1 st 2 nd 3 rd	Notes:
Do onsite conditions <u>throughout the entire parcel</u> preclude the need for MPG surveys? (CIRCLE and DESCRIBE)	Yes <input checked="" type="radio"/> No Dense woody cover (trees/shrubs) that appears to preclude any MPG use Impervious Compacted Graveled Flooded Slope Other _____ Notes:	
Describe ground visibility for mound detection: (CIRCLE and DESCRIBE)	Poor Fair <input checked="" type="radio"/> Good Notes:	

	MPG Mounds	Indeterminate	Mole Mounds
Quantify or describe amount of MPG mounds and approx. # of mounds or groups of mounds (specify whether count is individual mounds or groups)	0	0	16
	No MPG mounds observed <input checked="" type="radio"/> (CIRCLE)		

Sample Mazama Pocket Gopher Screening Field Form

<p>Does woody vegetation onsite match aerial photo? (CIRCLE and DESCRIBE)</p>	<p>Yes No – describe differences and show on parcel map/aerial:</p>
<p>What portion of the property was screened? (CIRCLE and DESCRIBE)</p>	<p>All Part - describe and show on parcel map/aerial:</p>
<p>Notes</p>	
<p>Team reviewed and agreed to data recorded on form? (CIRCLE, and EXPLAIN if “No”)</p>	<p>Yes No Reviewed by: _____</p> <p>Notes:</p>

Sample Mazama Pocket Gopher Screening Field Form

Site Visit Date: 16 September 2020

If 2nd or 3rd site visit, date(s) of previous visits: 27 October 2020

Site Information	Parcel #: <u>#12703240100</u>	
	Site/Landowner: <u>Wells</u>	
How were the data collected? (circle the method for each)	Transect: <input checked="" type="radio"/> GPS Aerial	
	Mounds: <input checked="" type="radio"/> GPS Aerial	
	Notes:	
Field team names: (Note who filled out form and others conducting screening)	Julie Lewis/Curtis Wambach	
Others onsite (name/affiliation)		
Site visit # (CIRCLE all that apply)	1 st <input checked="" type="radio"/> 2 nd 3 rd	Notes:
Do onsite conditions <u>throughout the entire parcel</u> preclude the need for MPG surveys? (CIRCLE and DESCRIBE)	Yes <input checked="" type="radio"/> No Dense woody cover (trees/shrubs) that appears to preclude any MPG use Impervious Compacted Graveled Flooded Slope Other _____ Notes:	
Describe ground visibility for mound detection: (CIRCLE and DESCRIBE)	Poor Fair <input checked="" type="radio"/> Good Notes:	

	MPG Mounds	Indeterminate	Mole Mounds
Quantify or describe amount of MPG mounds and approx. # of mounds or groups of mounds (specify whether count is individual mounds or groups)	0	0	14
	No MPG mounds observed <input checked="" type="radio"/> (CIRCLE)		

Sample Mazama Pocket Gopher Screening Field Form

<p>Does woody vegetation onsite match aerial photo?</p> <p>(CIRCLE and DESCRIBE)</p>	<p>Yes No – describe differences and show on parcel map/aerial:</p>
<p>What portion of the property was screened?</p> <p>(CIRCLE and DESCRIBE)</p>	<p>All Part - describe and show on parcel map/aerial:</p>
<p>Notes</p>	
<p>Team reviewed and agreed to data recorded on form?</p> <p>(CIRCLE, and EXPLAIN if “No”)</p>	<p>Yes No Reviewed by: _____</p> <p>Notes:</p>

Sample Mazama Pocket Gopher Screening Field Form

Site Visit Date: 28 October 2021

If 2nd or 3rd site visit, date(s) of previous visits: 27 October 2020 16 September 2020

Site Information	Parcel #: <u>#12703240100</u>	
	Site/Landowner: <u>Wells</u>	
How were the data collected? (circle the method for each)	Transect: <input checked="" type="radio"/> GPS Aerial	
	Mounds: <input checked="" type="radio"/> GPS Aerial	
	Notes:	
Field team names: (Note who filled out form and others conducting screening)	Julie Lewis/Curtis Wambach	
Others onsite (name/affiliation)		
Site visit # (CIRCLE all that apply)	1 st 2 nd <input checked="" type="radio"/> 3 rd	Notes: City requested a 3 rd site visit
Do onsite conditions <u>throughout the entire parcel</u> preclude the need for MPG surveys? (CIRCLE and DESCRIBE)	Yes <input checked="" type="radio"/> No Dense woody cover (trees/shrubs) that appears to preclude any MPG use Impervious Compacted Graveled Flooded Slope Other _____ Notes:	
Describe ground visibility for mound detection: (CIRCLE and DESCRIBE)	Poor Fair <input checked="" type="radio"/> Good Notes:	

Quantify or describe amount of MPG mounds and approx. # of mounds or groups of mounds (specify whether count is individual mounds or groups)	MPG Mounds	Indeterminate	Mole Mounds
	0	5	15
	No MPG mounds observed <input checked="" type="radio"/> (CIRCLE)		

Sample Mazama Pocket Gopher Screening Field Form

<p>Does woody vegetation onsite match aerial photo? (CIRCLE and DESCRIBE)</p>	<p>Yes No – describe differences and show on parcel map/aerial:</p>
<p>What portion of the property was screened? (CIRCLE and DESCRIBE)</p>	<p>All Part - describe and show on parcel map/aerial:</p>
<p>Notes</p>	
<p>Team reviewed and agreed to data recorded on form? (CIRCLE, and EXPLAIN if “No”)</p>	<p>Yes No Reviewed by: _____</p> <p>Notes:</p>

WASHINGTON FORESTRY CONSULTANTS, INC.

FORESTRY AND VEGETATION MANAGEMENT SPECIALISTS



O: 360/943-1723
C: 360/561-4407

9136 Yelm Hwy SE
Olympia, WA 98513

- Tree Protection Plan-

KINGSWOOD APARTMENTS

Kingswood Drive SW
Tumwater, Washington

Prepared for: Glenn Wells Architects

Prepared by: Washington Forestry Consultants, Inc.

Date: July 6, 2022

The project proponent is proposing to build a 180-unit multi-family apartment complex on 3.1-acres at Kingswood Drive SW in Tumwater, WA. Washington Forestry Consultants, Inc. was retained to examine the trees on the proposed project parcel.

Scope of Work

The purpose of the evaluation was to:

1. Complete an inventory of existing trees, and
2. Make recommendations for retention and/or replacement as per Chapter 16.08.070, the Tumwater Tree Protection Ordinance.
3. Prepare a new tree protection plan.

Methodology

WFCI has evaluated all trees 6 inches and larger diameter at breast height (DBH) in the proposed project area, and assessed their potential to be incorporated into the new project. The parcel was located and identified on plans provided to WFCI. The tree evaluation phase used methodology developed by Matheny and Clark (1998)¹ and the International Society of Arboriculture.

¹ Nelda Metheny and James R. Clark. Trees and Development: A Technical Guide to Preservation of Trees during Land Development. International Society of Arboriculture, Champaign, IL.

Soils and Site Description

The project includes parcel number: 12703240100 located in Sec. 03, T17N, R2W, W.M., City of Tumwater, Thurston County, Washington.

The topography of the project site is flat. It is bordered by Kingswood Drive SW to the north, Tyee Drive SE to the east, a Toyota dealership to the south, and a new multi-family development to the west. The parcel is sparsely stocked with scattered open grown trees. The ages of the trees are approximately 10 to 40 years old. There are no improvements on the site.

According to the Thurston County Soil Survey, the one soil type located on the site is the Nisqually loamy fine sand, a very deep, somewhat excessively drained soil found on terraces. It formed in sandy glacial outwash. Permeability is moderately rapid in the surface layer and very rapid in the substratum. Available water capacity is moderate and effective rooting is over 60 inches. Windthrow hazard is slight under normal conditions. Droughtiness during the summer months may cause seedling mortality.

Figure 1: Soil map of Kingswood Apartments Site.



73 - Nisqually loamy fine sand

Existing Trees

There is one forest type on the 3.1-acre project area.

Type I: This type contains all trees in the project area. There are three black locust (*Robinia pseudoacacia*) and 10 shore pine (*Pinus contorta*) trees growing in the type. The trees range from 5 to 20 inches DBH. The condition of the trees ranges from ‘Dead’ to ‘Fair’. Black locust however, is considered to be an invasive species and not recommended for retention on new projects. The following Table 1 is a list of all trees on the site.

Table 1. Inventory of trees on Kingswood Drive Apartments Site.

#	Species	DBH (in.)	Condition	Savable Based on Tree Condition Only? Yes or No	Minimum Root Protection Zone (ft.) if Saved	Project Plan Save or Remove	Notes
1	Shore Pine	8 – 12	Poor	No		Remove	Poor form, broken tops
2	Shore Pine	9 – 12	Dead	No		Remove	
3	Shore Pine	9	Fair	Yes	6	Remove	
4	Shore Pine	8	Fair	Yes	6	Remove	
5	Shore Pine	12	Fair	Yes	8	Remove	
6	Shore Pine	10 – 20	Fair	Yes	17	Remove	3 stems
7	Shore Pine	6	Fair	Yes	6	Remove	
8	Shore Pine	9	Fair	Yes	6	Remove	
9	Shore Pine	7	Fair	Yes	6	Remove	
10	Shore Pine	6	Fair	Yes	6	Remove	
11	Black Locust	7,8	Poor, invasive;	No		Remove	Poor form, growing in fence
12	Black Locust	6 – 7	Poor, invasive;	No		Remove	Poor form, growing in fence
13	Black Locust	5,6	Poor, invasive;	No		Remove	Poor form, growing in fence

The understory of the type is grass, Scotch broom (*Cytisus scoparius*), and Himalayan black berry (*Rubus armeniacus*).



Photo 1. View of cover type I and trees 1 & 2 on Kingswood Apartments Site.

Historic Trees. -- No Historic Trees occur on the site.

Specimen Trees. – No trees were considered to be specimen trees.

Off-Site Trees. – No offsite trees will be adversely affected by this project.

Tree Protection Areas

Due to poor tree quality, the invasive nature of black locust, and the tree locations being under the footprint of improvements, no trees are planned to be retained.

Minimum Stocking Calculation

The City of Tumwater Tree and Vegetation Protection Ordinance requires that 20% of the existing trees (or 12 trees per acre, whichever is larger) be saved on site.

The following is a summary of the proposed tree retention:

Total Project Acreage:	3.1 acres
Total # of Healthy Trees on the Project	8 trees
Required Retention (12 Trees/acre) *	37 trees
Required Retention (20%): **	2 trees
Planned Tree Retention:	0 trees
Planned Tree Removal	13 trees
Shortage of Required Retention (37 - 0)	37 trees

* Used for required tree retention calculation.

** Ordinance requires 20% or 12 trees/acre, whichever is greater – Sample calculation.

According to TMC 16.08.070.R.4: “In situations where a parcel of land to be developed does not meet the retention standards above in an undeveloped state, the applicant shall be required to reforest the site to meet the applicable standard outlined above at a 1:1 ratio as a condition of project approval.” A Tree Replacement Plan is necessary since planned retention is short of the minimum stocking requirement by 37 trees. The Tumwater tree ordinance requires that 37 trees be replanted to meet the 1:1 replacement standard. This plan is providing 80 replacement trees in the landscaping plan.

Tree Protection during Construction

If trees were saved, the tree protection fence should be orange mesh plastic, and be erected after logging and clearing, but prior to grading. No trenches, cuts, fills, drainage modification, irrigation lines, storing of materials, equipment operation, or other activity should occur within the critical root zone of protected trees. The tree protection and silt fences should be installed at least 5 feet beyond the driplines of trees to be saved.

If there are to be encroachments on any large diameter trees due to any change in the site plan, each tree should be evaluated to determine the impacts on tree survival and safety prior to the impact.

Pruning

If trees were retained, then all trees to be retained near structures, streets, or other targets should be crown cleaned to remove dead, dying, diseased, structurally defective, or extra branches. Crown raising or side trimming may be necessary to provide building and ground clearances for sidewalks and parking lots. All pruning should conform to the ANSI A300² standards for proper pruning, and be completed by or supervised by an ISA Certified Arborist®.

Landscape Installation

Grading, rototilling, and installation of irrigation lines should not impact the critical root zones (CRZ) if trees are saved. Noxious vegetation such as blackberry and Scotch broom should be selectively removed from tree tract areas by hand.

If additional fill is required to achieve desired grades, no more than 20% of the protected trees root zone should be covered with fill depths over 2 inches. If impacts must exceed 20% of the CRZ, the tree should be further evaluated by a Washington Forestry Consultants, Inc. (WFCI) to determine if removal and replacement is more appropriate.

Sequence of Events for Tree Protection Activity

1. Stake the clearing limits.
2. Complete logging.
3. Complete construction.
4. Plant replacement trees.

Tree Species for Inter-planting

We recommend that the following conifer tree species be used to interplant any gaps in the tree protection areas:

- Western redcedar
- Douglas-fir
- Incense-cedar
- Austrian pine

The trees should be at least 6-7 foot tall balled and burlap trees with well-developed central leaders.

The landscape plan (prepared by others) should incorporate some deciduous accent and shade trees to provide a mix of color, texture, and size across the site. The street tree

² American National Standard ANSI A300 (Part 1). 2008. Pruning for Tree Care Operations - Tree, Shrub, and Other Woody Plant Management - Standard Practices (Pruning). Tree Care Industry Association. Londonderry, NH. 13 pgs.

selection should correspond to the Tumwater Comprehensive Street Tree Plan recommendations. All tree species should be planted and mulched according to industry standards.

Summary

We propose that **no trees be retained** on the site due to poor tree condition or the invasive nature of the species. Other trees are located under the footprint of improvements and are not particularly significant. A landscape plan using quality tree species will provide high quality trees in 10 years - Versus dying retained trees that are not quality today.

A total of 37 trees are required to be planted to reforest the site to meet the TMC requirement. A total of 80 trees are being planted on the site.

We have suggested some suitable tree species for tree replacement. Payment for the shortfall of planted trees can, with approval, be made to the Tumwater Tree Fund.

Please give us a call if you have any questions.

Respectfully submitted,

Washington Forestry Consultants, Inc.



Galen M. Wright, ACF, ASCA
ISA Bd. Certified Master Arborist PN-129BU
Certified Forester No. 44
ISA Tree Risk Assessor Qualified
ASCA Tree and Plant Appraisal Qualified



Joshua Sharpes
Professional Forester
ISA Certified Arborist®,
Municipal Specialist, PN- 5939AM
ISA Tree Risk Assessor Qualified

APPENDIX I

Kingswood Drive Apartments Site Tree Locations

(Thurston County Geodata 2020)



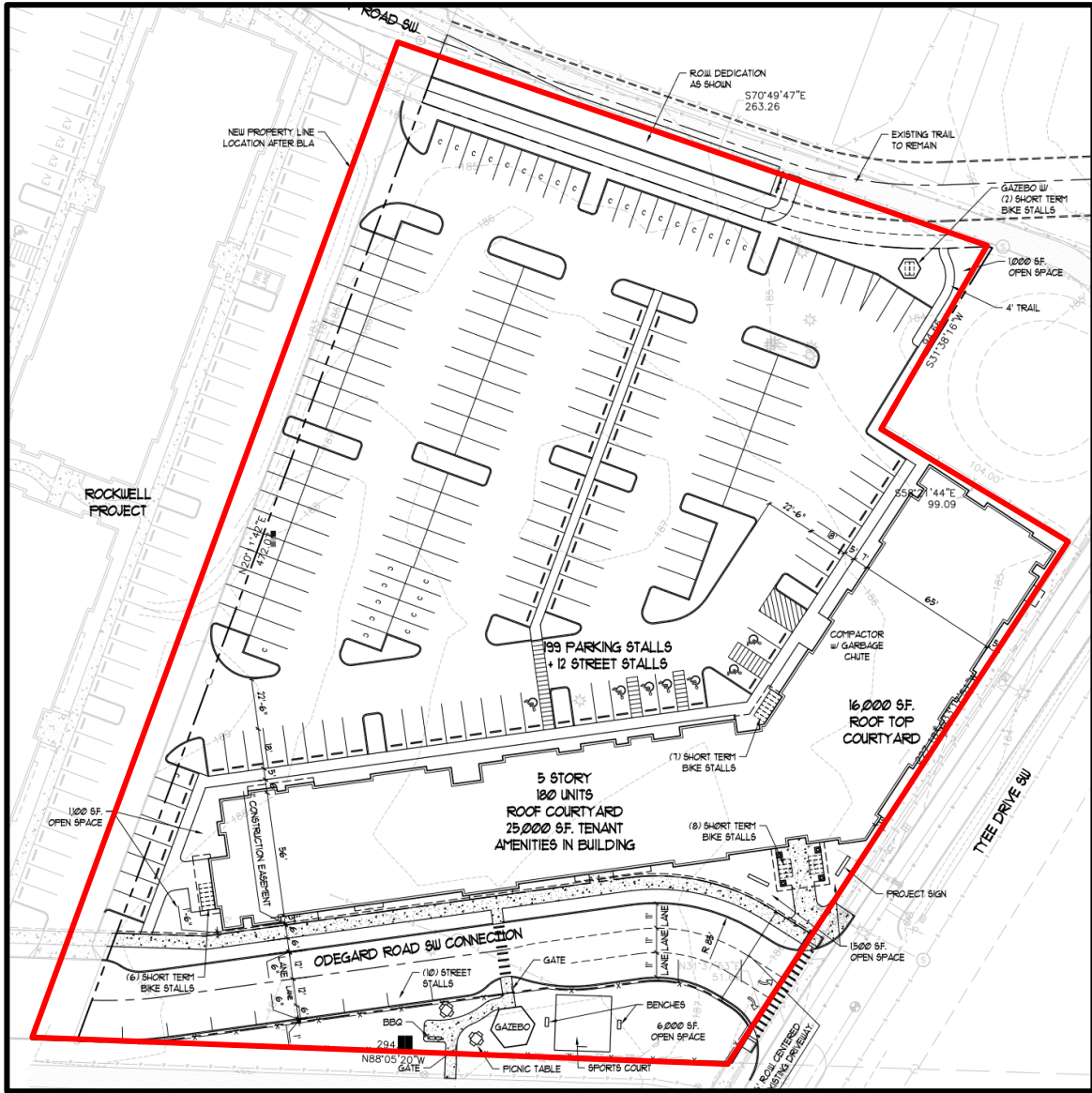
— Project and Cover Type Boundary

★ Healthy Tree

★ Unhealthy Tree

APPENDIX II

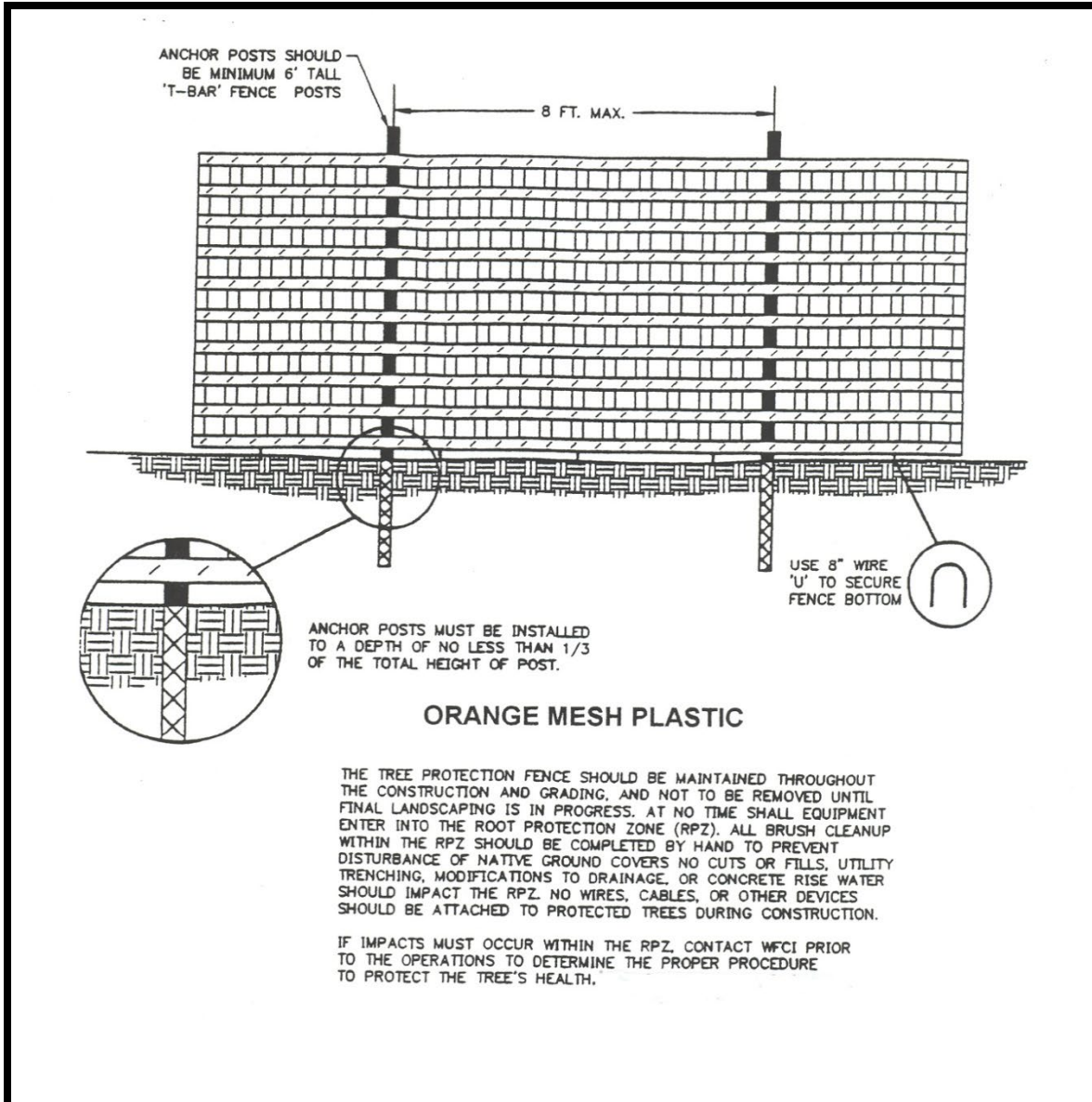
Kingswood Drive Apartments Site Plan



— Project Boundary

APPENDIX III

Tree Protection Fence Detail



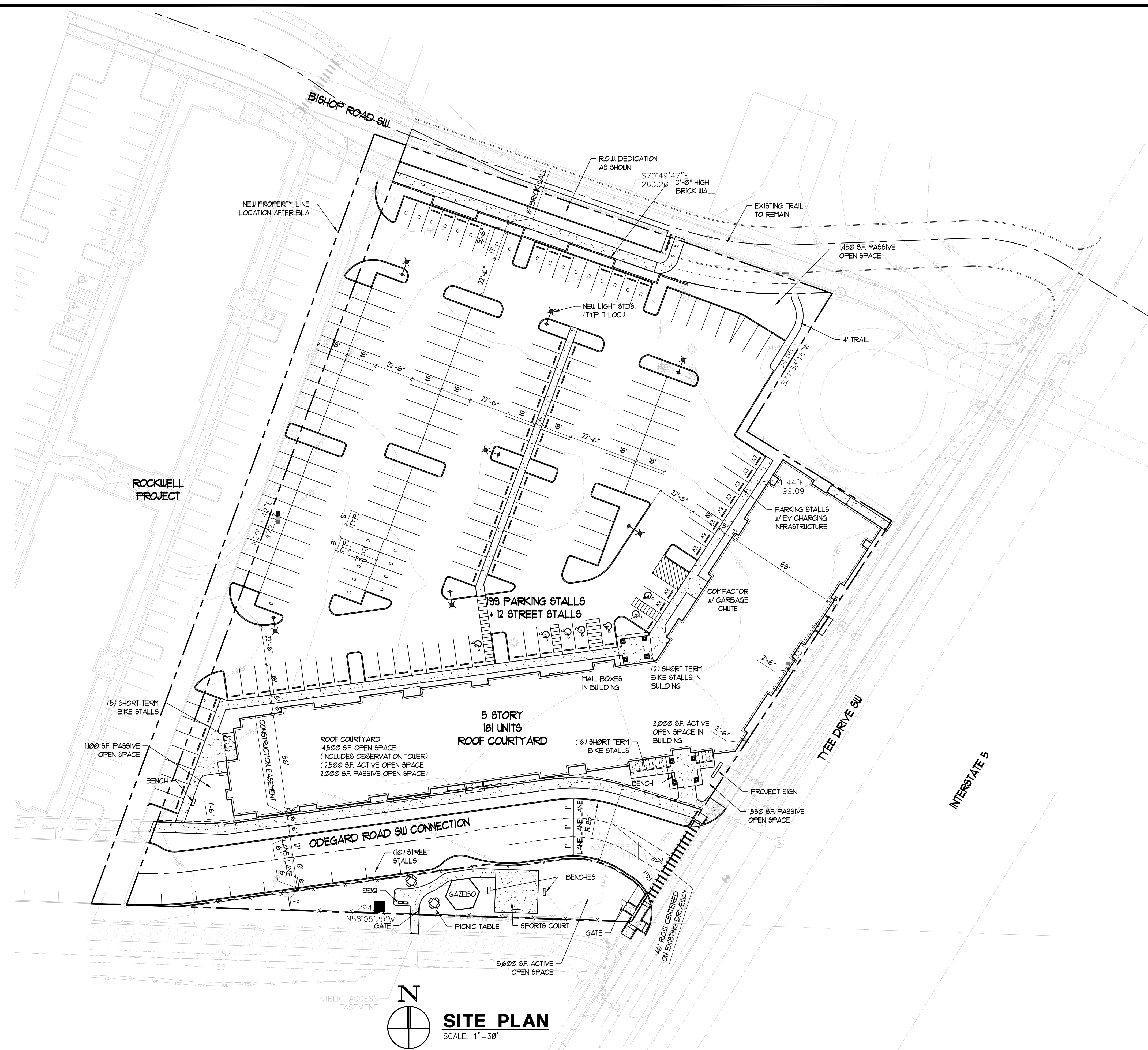
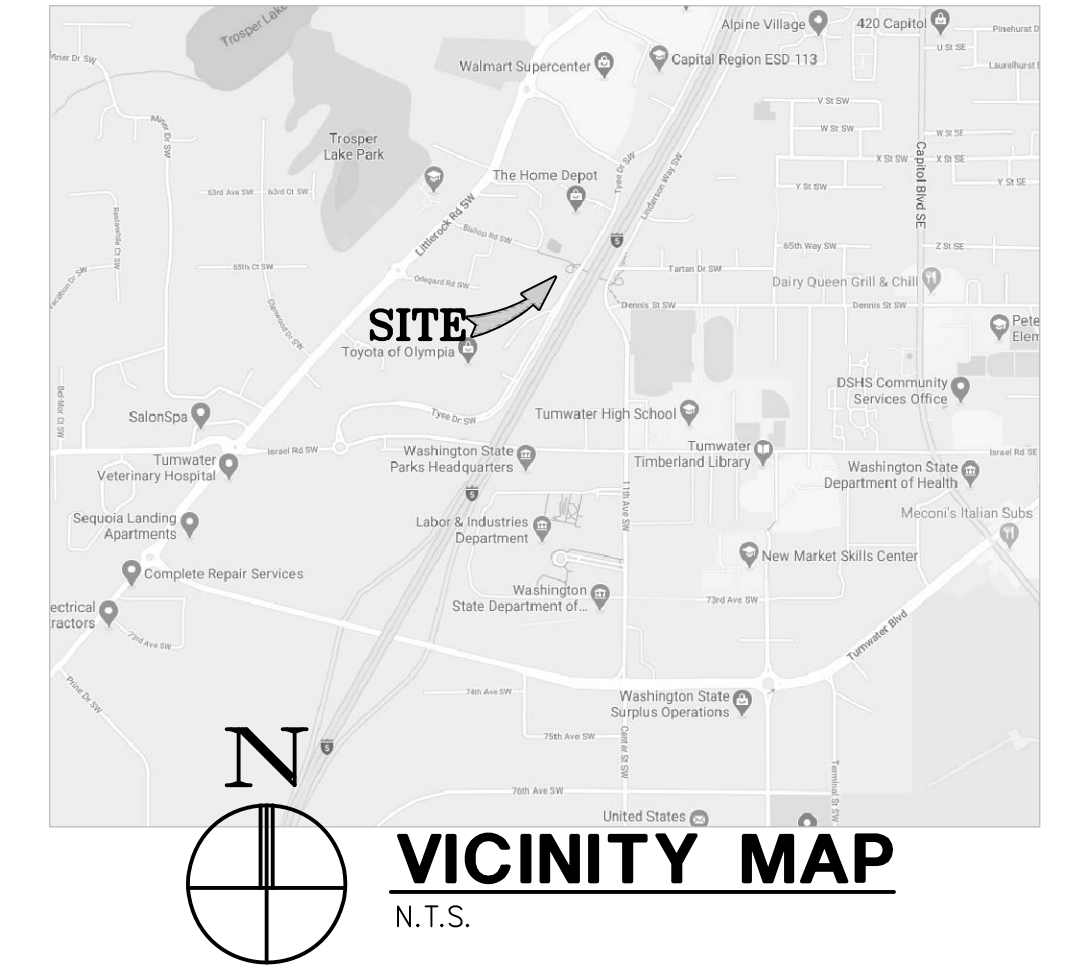
APPENDIX IV

Assumptions and Limiting Conditions

- 1) Any legal description provided to the Washington Forestry Consultants, Inc. is assumed to be correct. Any titles and ownership's to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
- 2) It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations, unless otherwise stated.
- 3) Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, Washington Forestry Consultants, Inc. can neither guarantee nor be responsible for the accuracy of information.
- 4) Washington Forestry Consultants, Inc. shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
- 5) Loss or alteration of any part of this report invalidated the entire report.
- 6) Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of Washington Forestry Consultants, Inc.
- 7) Neither all or any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of Washington Forestry Consultants, Inc. -- particularly as to value conclusions, identity of Washington Forestry Consultants, Inc., or any reference to any professional society or to any initialed designation conferred upon Washington Forestry Consultants, Inc. as stated in its qualifications.
- 8) This report and any values expressed herein represent the opinion of Washington Forestry Consultants, Inc., and the fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence neither of a subsequent event, nor upon any finding in to reported.
- 9) Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
- 10) Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the tree or other plant or property in question may not arise in the future.

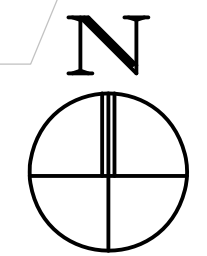
Note: Even healthy trees can fail under normal or storm conditions. The only way to eliminate all risk is to remove all trees within reach of all targets. Annual monitoring by an ISA Certified Arborist or Certified Forester will reduce the potential of tree failures. It is impossible to predict with certainty that a tree will stand or fail, or the timing of the failure. It is considered an 'Act of God' when a tree fails, unless it is directly felled or pushed over by man's actions.

W:\Commercial\Clients\Glenn Wells - Kingswood Apartments\201042 - Kingswood Apartments\201042 - SP01.0 24x36 TEMP.dwg, 9/19/2022 9:35:29 AM, TODD JACKSON Drafting Services (360) 956-0885



GENERAL DATA

	ACTUAL:	CODE REQD:	ROW DEDICATION:
PARCEL NUMBER:	12103240200		
LEGAL:	SECTION 3, TOWNSHIP 11 N, RANGE 2 W WM.		
OWNER:	FOURTH STREET HOUSING, LLC		
APPLICANT:	FOURTH STREET HOUSING, LLC PO BOX 159 ARLINGTON, WA 98223		
WATER:	CITY OF TUMWATER		
SEWER:	CITY OF TUMWATER		
ZONE:	MU		
TOTAL SITE AREA:	135,191 SF.		21,141 SF.
REMAINING SITE AREA:	114,044 SF.		
BUILDING FOOTPRINT:	25,844 SF.		
TOTAL BUILDING AREA:	130,491 SF.		
FIRST FLOOR:	25,844 SF.		
FIRST FLOOR CANOPIES:	1,222 SF.		
SECOND FLOOR:	25,875 SF.		
THIRD FLOOR:	25,954 SF.		
FOURTH FLOOR:	25,954 SF.		
FIFTH FLOOR:	25,640 SF.		
BUILDING HEIGHT:	55'-0" OK w/ SOLAR STUDY	50' OR 5 STORIES MAX.	
SET BACKS ZONE MU:	4'-6"	NO MIN. FRONT YARD	
	1'-6"	NO MIN. SIDE YARD	
	11'-0"	NO MIN. REAR YARD	
FIRE SPRINKLER:	YES - NFPA 13		
FIRE ALARM:	YES		
OCCUPANCY:	R-2		
TYPE OF CONSTRUCTION:	VA w/ STAIR PRESSURIZATION		
CODE:	2018 IBC		
TOTAL LANDSCAPING:	17,384 SF. (15.2%)	17,107 SF. (15%) MIN.	5,237 SF.
PAVING AREA:	64,495 SF.		12,753 SF.
TOTAL IMPERVIOUS AREA:	96,660 SF. (84.8%)	96,337 SF. (85%) MAX.	15,910 SF.
TOTAL UNITS:	(181) UNITS + (10) STORAGE UNIT		
UNIT MIX:	(41) STUDIO (40) STUDIO w/ DEN (68) 1 BEDROOM (9) 1 BEDROOM w/ DEN (18) 2 BEDROOM (4) 2 BEDROOM w/ DEN		
OPEN SPACE:	21,200 SF.	181 x 150 = 27,150 SF. REQUIRED	
ACTIVE OPEN SPACE:	21,000 SF.		
PASSIVE OPEN SPACE:	6,100 SF.		
PARKING:	TOTAL 199 STALLS 110 STANDARD STALLS 42 STREET STALLS 23 COMPACT STALLS (15%) EV INFRASTRUCTURE (199 x .05 = 10 STATIONS)	198 STALLS REQUIRED	
PARKING CALCULATION:	(181) STUDIOS, 1 BEDROOM + 2 BEDROOM x 1 STALL = 181 STALLS (PROJECT IS WITHIN 1/2 MILE OF TRANSIT STOP) + 1 GUEST FOR EVERY 10 UNITS = 18 STALLS 198 STALLS REQUIRED < 199 OK		
BIKE PARKING:	SHORT TERM: LONG TERM:	181 UNITS / 4 = 45 x .05 = 23 STALLS 181 UNITS / 4 = 45 + 22 = 67 STALLS REQUIRED 181 LONG TERM STALLS PROVIDED (1 STALL IN EACH UNIT)	
FAR CALC:	130,491 / 114,044 = 1.14		
DENSITY:	181 UNITS / 2.62 ACRES = 69 UNITS / ACRE OK	MIN. 14 UNITS / ACRE	



SITE PLAN
SCALE: 1"=30'

GLENN WELLS ARCHITECT

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3809 REGISTERED ARCHITECT

GLENN C. WELLS
STATE OF WASHINGTON

date:	04-01-22
drawn:	R.C.T.
checked:	G.C.W.

city issue:	
revisions:	07-22-22 09-09-22

title:	SITE PLAN KINGSWOOD APARTMENTS		sheet no.
	TUMWATER, WASHINGTON		SP1.0