SUF

SOUND URBAN FORESTRY
Appraisals, Planning, Urban Landscape Design and Management

Belmont Flats Mixed-Use Project
Tyee Drive
Tumwater, Washington 98501

Tree Protection Plan

Prepared for: Israel Investments, LLC

JSA Civil, Brandon Johnson

Prepared by: Kevin M. McFarland, SUF
Consulting Urban Forester/ISA Certified Arborist & Tree Risk Assessor Qualified

Date: 12/21/2022

This report has been developed as part of the proposed 15.18-acre Belmont Flats mixed-use project along Tyee Drive, in Tumwater, Washington. This plan will satisfy the requirements as specified by the City of Tumwater Protection of Trees and Vegetation Ordinance (TMC 16.08) and Development Guidelines and Standards.

I. Overall Site & Vegetation Description

The site contains 3 distinct vegetation types. The northern half is dominated by western red cedar and Douglas fir with scattered red alder, shore pine and big leaf maple. The southern half is dominated by red alder with some shore pine and Douglas fir. Along the eastern edge are large Douglas firs with a few shore pine and big leaf maple. The trees are in overall fair to good conditions and with the exception of the alders, are even aged and well-spaced. Understory vegetation is typical of lowland forests and includes salal, mahonia, hazelnut, sword fern and snowberry. The property had been mowed in the last 5-10 years resulting in open areas and lack of regeneration.

II. Inventory of Trees

A 100% inventory of all trees measuring 6" and greater within the parcels was conducted in December 2022. This information is presented in the table below.

Table 1. Inventory of Trees within Property

Species	DBH	Number of Trees
Big Leaf Maple	6-46"	198
Western Red Cedar	6-36"	93
Douglas Fir	6-38"	184
Shore Pine	8-24"	63
Grand Fir	8-24"	3
Red Alder	8-26"	5
Bird Cherry	12-32"	6
Bitter Cherry	12-32"	1
Pacific Dogwood	8-16"	7
Western Hemlock	14"	1
		Total = 561

Landmark Trees

I found no trees within the site that would be considered specimen or 'Landmark' trees.

Off-Site & Edge Trees

No offsite trees were identified with the potential of impacts.

III. Tree Retention Calculations

Trees to be retained are located within the Tree Protection Open Space in the southeast corner of the project. A summary of those trees can be found within Table 2. Per the TMC, trees that measure 24" and greater count as two.

Table 2. Inventory of Trees to be Retained within Tree Protection Open Space

Species	DBH	Number of Trees	Count Toward Retention
Big Leaf Maple	6-24"	6	6
Big Leaf Maple	24"+	4	8
Western Red Cedar	36"	1	2
Douglas Fir	24"+	3	6
Red Alder	26"	1	2
Pacific Dogwood	8-16"	5	5
Bitter Cherry	12" & 32"	2	3
			Total = 32

Table 3. Summary of Tree Retention Calculations

Gross Acreage (15.18 – 1.12 Dedicated ROW)	14.06
Total Trees Within Site (Table 1)	561
20% Tree Retention	112 Trees
*12 Trees/ Acre Retention	169 Trees
Proposed Tree Retention	32 Trees
Shortfall on Required Retention	137 Trees
Required Replanting (3:1)	411 Trees

***This is the greater amount and therefore required by TMC**

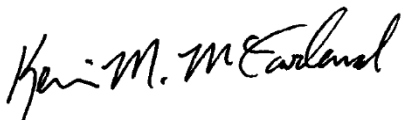
IV. Replanting

This project falls short of the minimum retention by 137 trees. Because it would be possible to meet that minimum, the applicant will be required to replant at a rate of 3:1 within the site. Per the standards outlined in TMC 16.08.070, priority must be given to replanting within the tree protection open space in order to obtain 80% coverage in 15 years. There is ample room within the open space for replanting. These requirements will be addressed with the submitted landscape plans.

IV. Tree Protection

Due to the limited access of the Tree Protection Open Space, protection fencing will only be necessary along the western most perimeter, as shown on the attached site plan. Fencing will meet the City's standards and be installed prior to any site work.

Professionally Submitted,



Kevin M. McFarland, Principal
ISA Certified Arborist PN-0373 & ISA Tree Risk Assessment Qualified
Sound Urban Forestry, LLC

Location of Tree Protection Open Space and Recommended Tree Protection Fencing