



Memorandum

DATE February 24, 2021

TO: Mayor and Councilmembers

FROM: Tricia Juhnke, City Engineer
Randy Witt, Public Works Director

RE: Street Trees in the Right-of-Way - Regulations, Summary and Options

CC: Debbie Tarry, City Manager
John Norris, Assistant City Manager

Introduction

The City Council has asked staff to review the City's current regulations and standards regarding tree protection and preservation during the development process. This memo is specifically focused on street trees contained in the existing rights-of-way. These trees would be considered public trees, given that they are located in the City's rights-of-ways. This paper is structured to provide background information on the current codes and standards, a discussion on how street trees are currently managed in the development review process and ideas or opportunities to modify codes, standards and/or operational practices to better manage and protect existing street trees.

Background

In 2000, the City adopted Shoreline Municipal Code (SMC) Chapter 20 Development Code. Included in Title 20 is Chapter 20.70, Engineering and Utilities Development Standards which establishes engineering regulations, standards, and a framework for the standards and requirements to development projects.

In SMC 20.70.020, the City establishes the [Engineering Development Manual \(EDM\)](#) to include processes, design and construction criteria, inspection requirements and technical standards for engineering design associated with development of streets and utilities and/or improvements. The EDM is also defined In SMC 12.10.015, giving the Director of Public Works the authority to prepare, administer and amend the EDM.

In SMC 20.70.230, the City establishes the requirements for frontage improvements. This code section defines the elements of frontage improvements, such as sidewalks, landscaping, and drainage improvements; when frontage improvements are required by development; and establishes that improvements shall be designed and constructed in accordance of the EDM.

In 2012, the City adopted [SMC 12.30 Public Tree Management](#) to define the management of trees on City property and in the Right-of-way. This code section addresses the requirements for removal of trees within the right-of-way including when trees can or cannot be removed and replacement requirements for removal of significant trees.

The EDM is an administrative document that establishes design standards for site development and right-of-way improvements. It includes standards utilized for design of elements such as sidewalks, driveways, lighting, street design and stormwater for both the project site and the right-of-way. This provides consistency and predictability for engineers designing projects and reviewers reviewing permit applications. The EDM is updated annually to ensure it stays in alignment with Code Amendments, new regulations, and the City's vision for development. The update process includes an opportunity for the public to provide comment on the draft document or identify areas in need of revisions. The 2021 EDM was posted on the City's website in early November 2020 and will be effective March 1, 2021.

Summary of Current Codes and Standards for Regulation of Street Trees

A summary of the contents of the specific Codes and Engineering Development Manual as they relate to Street Trees is included in Attachment A.

In general, SMC 12.30.040 does not directly address the protection of trees related to development projects. The focus at the time of adoption of this Code section was on regulations related to the removal of trees in front of individual homes. However, the codes are applied to tree removal on development projects.

Removal of Trees in unopened rights-of-way – No trees can be removed in right-of-way that has not been opened with public improvements.

Approved Street Trees – New trees planted in the right-of-way are required to be from the Street Tree list approved by the Tree Board, which is included as Appendix G (Page 222) in the EDM. The Tree Board last reviewed and approved the Street Tree list in 2019. The majority of trees on the Street Tree list are deciduous and appropriate to be constructed adjacent to roadways and in amenity zones. The list includes some conifers that are appropriate for planting in areas without curb, gutter and sidewalk. The objective is to provide trees best suited for the environment they will be planted, or “right tree, right place”.

Tree replacement - Trees six inches in diameter or greater at breast height allowed to be removed in the right-of-way are required to be replaced. The replacement requirements are the same as those included in [SMC 20.50.360\(C\)](#) of the development code:

1. One existing significant tree of eight inches in diameter at breast height for conifers or 12 inches in diameter at breast height for all others equals one new tree.
2. Each additional three inches in diameter at breast height equals one additional new tree, up to three trees per significant tree removed.

Fee in lieu of replacement - If there is not suitable space for the replanting of street trees in the vicinity of removal then the applicant may pay a fee in lieu. Projects often have a combination of tree replacement and fee in lieu. The current fee for tree replacement is \$2,611. These fees are used by the City to plant trees in parks, rights-of-way or on other City properties.

Engineering Development Manual - Provisions to protect and preserve trees can be found in several locations as detailed in Appendix A. The 2021 EDM will include new provisions including requiring that trees to be removed have a public posting 14 days in advance of removal and that sidewalk design may need to be modified to preserve/protect trees.

Public notification of tree removal - There is no public notice requirement for tree removal or right-of-way use permits. If trees are anticipated to be removed as part of a large development project, there may be public notice requirements such as land division or SEPA environmental review are triggered.

Tree Permit Statistics

Statistics about tree removal and replacement associated with right-of-way permit applications in 2019 and 2020 are provided in Attachment B. The numbers are based on permit applications and not actual trees removed or replaced. The statistics show that frontage improvements trigger most of the tree removal but also result in the most tree plantings. Overall, the new trees planted exceed the tree removals and the City is receiving substantial revenue from “in-lieu” fees to plant trees elsewhere on City property.

Discussion

The requirement for frontage improvements often impacts existing trees in the right-of-way creating tension between adding new sidewalks and preserving/protecting existing trees. The EDM is used to inform applicants of the required frontage improvements, typically during a pre-application meeting. The design submitted for review includes the required frontage improvements and identifies existing trees to be removed or remain. The size of the trees being removed are used to calculate the tree replacement requirements.

As part of the review process, City staff (specifically, the Development Review Engineers (DREs)) works with an applicant to identify opportunities to protect trees while meeting the requirements and objectives for frontage improvements. Typically, this discussion begins with the first review of the permit submittal, which is technically at the 100% design phase. If available, DREs use the project arborist report for an assessment of the trees, viability for

survival, or strategies for protection. Often the ability to protect or save trees is limited and is highly dependent on the proximity of the tree to the new sidewalk and existing site conditions. Currently the requirements for frontage improvements are prioritized over the protection of trees, but alternatives or modifications to sidewalks to protect trees are considered and encouraged. In general, DREs work with applicants throughout the review process and identify protection opportunities on a case-by-case basis.

A revision to the design standards for frontage improvements on a project to protect trees typically require a deviation. The following are the two primary design alternatives used to protect trees:

- Placing the sidewalk at the back of curb and having the amenity zone behind the sidewalk (reverse of standard arrangement in the EDM). In doing so, the sidewalk is often required to be wider to accommodate signs and other items typically placed in the amenity zone.
- Adjust the width of sidewalks and/or amenity zones for short segments to go around trees.

A few examples where trees have been protected through modifying standards (via a deviation) during the review process are included in Attachment C.

Situations such as the WSDOT project are the exception, not the norm, in the scale of frontage improvements, trees impacted and the willingness of the applicant to work with the City on retaining trees in the rights-of-way. The large-scale modifications to the standards to protect trees has been very time intensive to the applicant (WSDOT) and staff. The applicant has redesigned several areas multiple times including updates to the arborist reports. Staff modified the standard procedure of issuing the building permit and right-of-way permit together, so the applicant could proceed with their on-site construction while still designing the new frontage improvements.

Applicants are often motivated to protect large trees to reduce the tree replacement requirements. The frontage of most projects is not long enough to plant the required replacement trees. The other alternative is to pay a fee-in-lieu for trees that cannot be planted in the right-of-way adjacent to the project. At times the new trees being planted in the amenity zone will ultimately be better than the trees needing to be removed for a project. Existing trees, for example, may be (or have been) significantly pruned due to power lines and new trees will be the right size and type for being under or around power lines.

It is worth noting that even with careful planning and design, during construction, additional trees may be able to be saved or require removal based on field conditions. Prior to construction, trees to be saved are protected with fencing. These changes may not be captured in the permit system or included in the data contained in Attachment B.

Historically, the authorized Director in SMC 12.30 (Parks Director) has not been involved in most tree removals or placement on development projects. At the time of the approval of the code, it was determined the day-to-day responsibility for reviewing and permitting tree removals would remain with DREs in the Engineering Division in the Public Works Department. In addition, at that time, Parks Division did not have an Urban Forestry position or the capacity to take on this review. The Director is typically involved in challenging permits specific to just tree removal and is not typically engaged in the review or approval of trees associated with frontage improvements.

Beyond development projects, City capital projects also impact trees when installing new sidewalks or other improvements. Similar to development projects, each project is looked at on a case-by-case/tree-by-tree basis to identify opportunities to save trees. An arborist is used to review the health of the tree, the impacts of the projects on trees and identification of methods to preserve trees. Capital projects also adjust sidewalk width and location to reduce impacts.

Options for Revisions to Standards or Code

There will continue to be a tension or inherent conflict between new sidewalks and protection/preservation of trees. There is not a single or uniform approach to meet both needs. Instead, several smaller options have been identified to provide additional focus on preservation of trees and enhancing the oversight and quality of newly planted trees.

EDM Revisions

Currently, standards on tree protection are scattered in several locations in the EDM. An additional section can be created to consolidate and provide specific methods and expectations for protection of trees. The standards can also be revised to provide applicants and reviewers more flexibility in alternative sidewalk design and specifically not require deviations for minor alterations to standards.

Operational Changes

Permit submittal requirements can be revised to require the arborist report to include trees in the rights-of-way. This will improve the ability to review and assess street trees and provide consistency in information for private property trees and street trees.

The Urban Forestry position can be engaged on a routine basis (once or twice a month) to assist in plan review and construction inspection of permits that include street tree removals and plantings. This will utilize the expertise of an arborist to advise on best practices in coordinating with developers and determining viability of trees, ensuring appropriate trees are selected and planted on projects. This also allows Parks Division staff to have a better understanding and awareness of changes in the street tree inventory. Although capacity of the City's Urban Forester for a more formal review and approval practice is not available with current staffing, costs for that level of effort could be absorbed by increased permit fees.

Attachments

Attachment A: Summary of Codes and Standards Impacting Street Trees

Attachment B: Street Tree Removal and Replacement Permit Statistics

Attachment C: Examples of Design Revisions to Protect Trees

Attachment A – Summary of Codes and Standards Impacting Street Trees

SMC 20.70.320 Frontage Improvement

- Development activities require installation of frontage improvements that include right-of-way dedication, curb, gutter, sidewalk, amenity zone, landscaping, etc. as defined in the Master Street Plan (EDM Appendix F).
- EDM defines standards for design and construction of frontage improvements.
- Deviations to the standards may be considered through SMC 20.30.290.

SMC 12.30 Public Tree Management

- Responsibility for managing and overseeing street trees lies with the Parks, Recreation, and Cultural Services director (now Parks, Facilities and Fleet Manager). The director is authorized to adopt administrative procedures.
- Establishes a tree board as part of the Parks board. The tree board is advisory to the City Council and has the primary responsibility to make policy recommendations concerning management of trees on city owned property and in rights-of-way.
- Tree Plantings and removals require right-of-way use permits.
- limits on removal under critical area regulations.
- No permits allowed for removal of trees in unimproved right-of-way.
- Trees greater than 6” in diameter must be replaced using the formula in SMC 20.50.360.
- Replacement trees must be from approved Street tree list (Appendix X of EDM).
- If there is not room to replant trees in the vicinity of their removal area, the applicant may pay a “fee in lieu” of replacement.

[Engineering Development Manual](#)

7.4 Street Tree Removal/Pruning (new 2021) – includes posting of trees for removal 14 days in advance of removal.

7.8 Dedication of Right-of-way (new 2021) -clarifies that trees in areas that will be dedicated are not considered street trees and will be managed as private property trees following the requirements in the development code.

14.2 Sidewalks (new 2021) – adds language that alternative sidewalk design may be required to protect significant trees.

15.2 Landscaping - includes design standards for the following:

- Preserve existing trees where possible
- Spacing for street trees
- Type and size of trees
- Clearance from utilities
- Spacing or clearance from items such as driveways, intersections, poles, edge of roadway

26.7 Landscaping – includes construction standards for the following:

- Installation of new Street Trees
- Protection of existing street trees during construction

Appendix F Street Matrix – identifies flexibility in roadway cross-sections (including sidewalk) for site specific circumstances including large trees.

Appendix G Right-of-way Street Trees – contains list of trees, approved by Tree Board, that can be placed in the Right-of-way.

Attachment B – Street Tree Removal and Replacement Permit Statistics

Permit Type	# of Permits with tree retention data		Total to be Planted		Total Trees Required Replacement		Total Trees to be removed		Net Trees (Planted - Removed)		Sum of Fee in Lieu	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
RIGHT OF WAY PERMITS	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Frontage Improvements	22	5	57	14	76	6	-33	-4	24	10	79143.00	
Sewer Improvements	1				1		-2		-2		2553.00	
Landscaping or Vegetation or Tree	1	7	3	23	3	29	-1	-18	2	5		
Driveway Access Only	1		1		1		-1		0			
Drainage Improvements	1		3		3		-1		2			
Total	26	12	64	37	84	35	-38	-22	26	15	\$ 81,696.00	0

Notes:

- Based on permit application date; permit may not have been issued yet
- Fee in lieu is not entered until the permit is ready to be issued. It is common for permits applied in 2020 to not be approved in the same year.

Attachment C – Examples of Design Revisions to Protect Trees

North City Maintenance Facility -



15th Avenue NE at NE 58th Street – modified amenity zone and moved sidewalk to behind curb



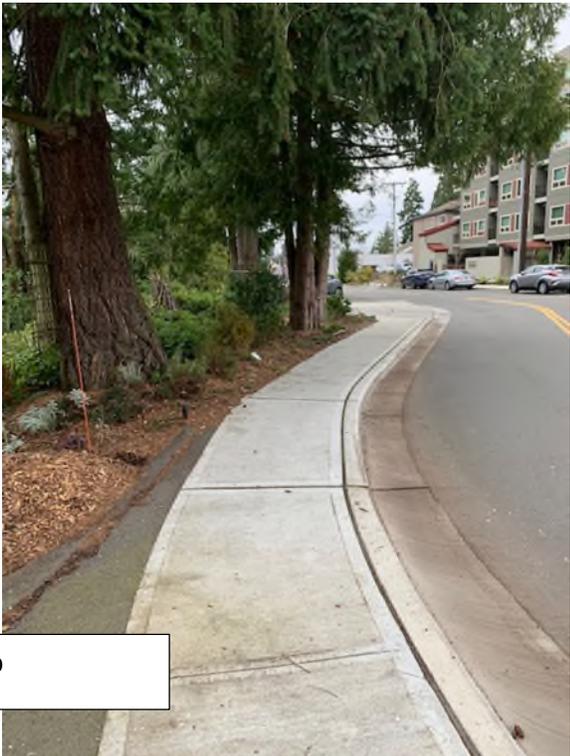
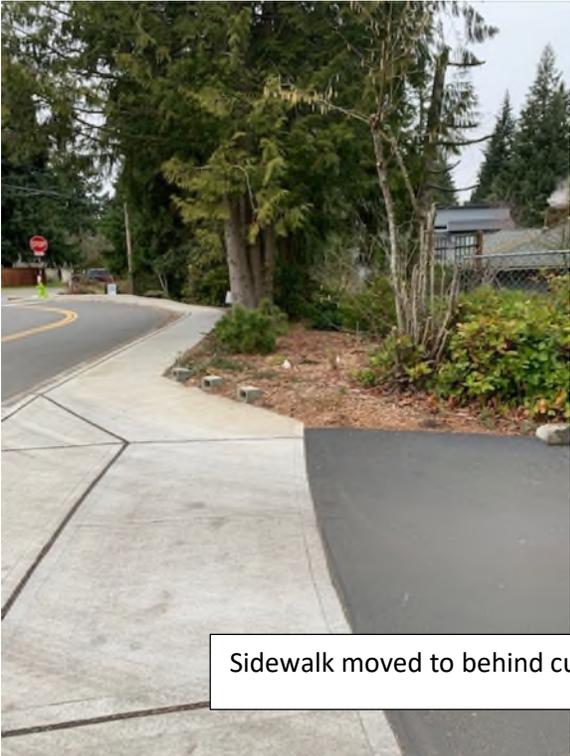
14th Avenue NE – Eliminate amenity zone and install small wall

Kellogg Middle School



NE 165th Street at 25th Avenue NE– modified amenity zone and moved sidewalk to behind curb

Firlands Way N at Linden Avenue N



Sidewalk moved to behind curb