CITY OF
BAINBRIDGE ISLAND

PLANNING COMMISSION SPECIAL MEETING
THURSDAY, MAY 27, 2021

THE PLANNING COMMISSION WILL HOLD THIS MEETING USING A VIRTUAL ZOOM WEBINAR PLATFORM. MEMBERS OF THE PUBLIC WHO DO NOT WISH TO VIEW THE MEETING VIA THE CITY'S WEBSITE STREAMING WILL BE ABLE TO CALL IN TO THE ZOOM MEETING.
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+1 346 248 7799 OR +1 646 558 8656
WEBINAR ID: 990 9316 3225
INTERNATIONAL NUMBERS AVAILABLE: HTTPS://BAINBRIDGEWA.ZOOM.US/U/ABC2WQZA2T

AGENDA

1. **CALL TO ORDER/LAND ACKNOWLEDGMENT/AGENDA REVIEW - 6:00 PM**
We would like to begin by acknowledging that the land on which we gather is within the aboriginal territory of the Suquamish, "People of Clear Salt Water." Expert fishermen, canoe builders and basket weavers, the Suquamish live in harmony with the lands and waterways along Washington's Central Salish Sea as they have for thousands of years. Here, the Suquamish live and protect the land and waters of their ancestors for future generations as promised by the Point Elliot Treaty of 1855.

2. **PLANNING COMMISSION MEETING MINUTES - 6:05 PM**
Review and approve meeting minutes.

2.a **Review and Approve Meeting Minutes for May 13, 2021.** 10 Minutes
Planning Commission Meeting Minutes 051321.pdf

3. **PUBLIC COMMENT - 6:10 PM**
Public comment on off-agenda items.

4. **UNFINISHED BUSINESS - 6:20 PM**

4.a **(6:20 PM) - Ordinance No. 2021-07 – Updates to Tree and Vegetation Regulations in Chapters 16.18 and 16.32 BIMC and in BIMC 16.20.100 and BIMC 18.15.010 - Planning,** 30 Minutes
ORD_2021-07 Staff Memo

Ordinance No. 2021-07
Exhibit A to ORD 2021-07 - Chapter 16.18 BIMC (Tree Removal Forest Stewardship and Vegetation Maintenance)
Exhibit B to ORD 2021-07 - Chapter 16.32 BIMC (Protection of Landmark Trees)
Exhibit C to ORD 2021-07 - BIMC 18.15.010 (Landscaping screening and tree retention protection and replacement)
Exhibit D to ORD 2021-07 - BIMC 16.20.100 (Aquifer Rechage Areas)
[For Discussion] Ordinance 2017-07 Comments -- CM Carr with Staff color coding
[For Discussion] Jon Quitslund Memo to PCD on Ord. 2021-07.docx
[For Background] Ord 2021-07 SEPA checklist.pdf
[For Background] Ord 2021-07 SEPA DNS_signed.pdf
[For Background] PC Public Hearing 2020-28 (2021-07)- submitted written comments and staff response.docx
[For Background] Planning Commission Recorded Motion Ordinance 2020-28 Updates and Revisions to Tree and Vegetation Regulations 121720.pdf
Exhibit E to ORD 2021-07 (Community Forest Best Management Practices Manual)

4.b **(6:50 PM) - Draft Ordinance No. 2021-12 & Resolution 2021-07: Phase 2 Triage Code Changes Related to Improving the Pre-application Phase.** 30 Minutes
DRAFT Ordinance No. 2021-12
Exhibit A Phase Two Triage Code Changes - DforB revisions_clean_05202021.docx
Exhibit B - Project review flow chart_05182021.pdf
RESOLUTION NO 2021-07

5. NEW BUSINESS - 7:20 PM

5.a **(7:20 PM) - AT&T Telecom Facility Major Conditional Use Permit and Wireless Communication Facility (PLN51880A CUP WCF)** 45 Minutes
PLN51880A CUP WCF ATT Staff Report to Planning Commission.pdf
1. PLN51880A CUP WCF Site Plan.pdf
2. PLN51880A CUP WCF Plan Set.pdf
3. PLN51880A CUP WCF Photo Simulations.pdf
4. PLN51880A CUP WCF View Shed Map Analysis.pdf
5. PLN51880A CUP WCF Radio Frequency Justification.pdf
6. PLN51880A CUP WCF Noise Survey by SSA Acoustics dtd January 14, 2021.pdf
7. PLN51880A CUP WCF Radio Frequency Compliance.pdf
8. PLN51880A CUP WCF Public Comment.pdf
9. PLN51880A CUP WCF Design for Bainbridge Worksheet.pdf
10. PLN51880A CUP WCF Site Photos.pdf

6. PLANNING DIRECTOR'S REPORT - 8:05 PM

7. FOR THE GOOD OF THE ORDER - 8:10 PM

8. ADJOURNMENT - 8:15 PM

GUIDING PRINCIPLES

Guiding Principle #1 - Preserve the special character of the Island, which includes downtown Winslow's small town atmosphere and function, historic buildings, extensive forested areas, meadows, farms, marine views and access, and scenic and winding roads supporting all forms of transportation.

Guiding Principle #2 - Manage the water resources of the Island to protect, restore and maintain their ecological and hydrological functions and to ensure clean and sufficient groundwater for future generations.

Guiding Principle #3 - Foster diversity with a holistic approach to meeting the needs of the Island and the human needs of its residents consistent with the stewardship of our finite environmental resources.

Guiding Principle #4 - Consider the costs and benefits to Island residents and property owners in making land use decisions.

Guiding Principle #5 - The use of land on the Island should be based on the principle that the Island's environmental resources are finite and must be maintained at a sustainable level.

Guiding Principle #6 - Nurture Bainbridge Island as a sustainable community by meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Guiding Principle #7 - Reduce greenhouse gas emissions and increase the Island's climate resilience.

Guiding Principle #8 - Support the Island's Guiding Principles and Policies through the City's organizational and operating budget decisions.

Planning Commission meetings are wheelchair accessible. Assisted listening devices are available in Council Chambers. If you require additional ADA accommodations, please contact the Planning & Community Development Department at (206) 780-3750 or pcd@bainbridgewa.gov by noon on the day preceding the meeting.

Public comment may be limited to allow time for the Commissioners to deliberate. To provide additional public comment, email your comment to pcd@bainbridgewa.gov or mail it to Planning and Community Development, 280 Madison Avenue North, Bainbridge Island, WA 98110.

CITY OF
BAINBRIDGE ISLAND

Planning Commission Special Meeting Agenda Bill

MEETING DATE: May 27, 2021 **ESTIMATED TIME:** 10 Minutes

AGENDA ITEM: Review and Approve Meeting Minutes for May 13, 2021.

AGENDA CATEGORY: Minutes **PROPOSED BY:** Jane Rasely

PREVIOUS PLANNING COMMISSION REVIEW DATE(S):

PREVIOUS COUCIL REVIEW DATE(S):

RECOMMENDED MOTION:
I move approval of the meeting minutes for the May 13, 2021 meeting as distributed.

SUMMARY:

BACKGROUND:

ATTACHMENTS:

CITY OF
BAINBRIDGE ISLAND

Planning Commission Special Meeting
May 13, 2021

Meeting Minutes

1) CALL TO ORDER/LAND ACKNOWLEDGMENT/AGENDA REVIEW/CONFLICT DISCLOSURE

Chair Kimberly McCormick Osmond called the meeting to order at 6:00 PM. Commissioners in attendance were William Chester, Jon Quitslund, Sarah Blossom and Ashley Mathews. Commissioner Joe Paar and Lisa Macchio were absent and excused. City Staff present were Planning & Community Development Director Heather Wright, Planning Manager David Greetham, City Arborist Nick Snyder and Administrative Specialist Jane Rasely who monitored recording and prepared minutes.

Commissioner Ashley Mathews read the Land Acknowledgement. The agenda was reviewed. There were not any conflicts disclosed.

2) PLANNING COMMISSION MEETING MINUTES

2.a Review and Approve Meeting Minutes from April 22, 2021

Cover Page

Planning Commission Meeting Minutes DRAFT 042221.pdf

> **Motion: I move approval of the meeting minutes for the April 22, 2021 meeting as distributed with our agenda packet.**
> **Quitslund/Mathews: Passed Unanimously**

3) PUBLIC COMMENT

None.

4) UNFINISHED BUSINESS

4.a Ordinance No. 2021-07 – Updates to Tree and Vegetation Regulations in Chapters 16.18 and 16.32 BIMC and in BIMC 16.20.100 and BIMC 18.15.010 - Planning,

Cover Page

Staff Memo to PC

Ordinance No. 2021-07 04212021 .docx

Exhibit_A_to_ORD_2021-07_-_Chapter_16.18_BIMC__Tree_Removal_Forest_Stewardship_and_Vegetation_Maintenance__-_04222021.pdf

Exhibit B to ORD 2021-07 - Chapter 16.32 BIMC (Protection of Landmark Trees) -04222021.docx

Exhibit C to ORD 2021-07 - BIMC 18.15.010 (Landscaping screening and tree retention protection and replacement) - 04222021.docx

Exhibit D to ORD 2021-07 - BIMC 16.20.100 (Aquifer Rechage Areas) - 04222021.docx

Exhibit E to ORD 2021-07 (Community Forest Best Management Practices Manual) 04222021.docx
[For Background] ORD 2021-07 CM Carr Questions and Concerns
[For Background] Ord 2021-07 SEPA checklist.pdf
[For Background] Ord 2021-07 SEPA DNS_signed.pdf
[For Background] PC Public Hearing 2020-28 (2021-07)- submitted written comments and staff response.docx
[For Background] Planning Commission Recorded Motion Ordinance 2020-28 Updates and Revisions to Tree and Vegetation Regulations 121720.pdf
Planning & Community Director Heather Wright provided opening remarks and City Arborist Nick Snyder reviewed changes to the proposed ordinance.

4.b Update on Draft Ordinance No. 2021-12 & Resolution 2021-07: Phase 2 Triage Code Changes Related to Improving the Pre-application Phase.
Cover Page
Planning Manager David Greetham provided an update on the Design Review Board process.

4.c SMP Periodic Review Update
Cover Page
Director Heather Wright provided an update on Council direction for the SMP Periodic Review.

5) PLANNING DIRECTOR'S REPORT

Director Heather Wright provided an update on items of interest to the Planning Commissioners.

6) FOR THE GOOD OF THE ORDER

7) ADJOURNMENT

The meeting adjourned at 7:34 PM.

DRAFT

____
Kimberly McCormick Osmond, Chair

____
Jane Rasely, Administrative Specialist

CITY OF BAINBRIDGE ISLAND

Planning Commission Special Meeting Agenda Bill

MEETING DATE: May 27, 2021 **ESTIMATED TIME:** 30 Minutes

AGENDA ITEM: (6:20 PM) - Ordinance No. 2021-07 – Updates to Tree and Vegetation Regulations in Chapters 16.18 and 16.32 BIMC and in BIMC 16.20.100 and BIMC 18.15.010 - Planning,

AGENDA CATEGORY: Ordinance **PROPOSED BY:** Nick Snyder

PREVIOUS PLANNING COMMISSION REVIEW DATE(S): 8/13/20, 9/10/20, 10/29/20, 11/12/20, 12/10/20, 12/17/2020, and 5/13/2021

PREVIOUS COUCIL REVIEW DATE(S): 2/25/2020, 4/27/2021

RECOMMENDED MOTION:
Set a public hearing on ORD No. 2021-07 (including the proposed amendments) for the June 10th Special Meeting

SUMMARY:
The Staff Memo to the PC describes the actions taken since the last Planning Commission meeting on Ordinance 2021-07 on May 13, 2021 where the PC discussed some of the changes proposed by staff after a council member raised procedural and substantive concerns at the April 27th, 2021 City Council meeting. Additionally, the Whereas's have been modified to address the purpose of each exhibit and to eliminate the unnecessary references to the history of the Landmark Tree Interim Control extensions.

On May 15th 2021, following the 5/13/21 PC meeting, Commissioner Quitslund provided a set of responses on some of City Councils concerns to the planning staff. Those comments will serve to help form the conversation around the additional items identified by Council. The response provided by Commissioner Quitslund is attached for discussion.

BACKGROUND: As part of the work plan that was adopted with the Landmark Tree Ordinance (codified in Chapter 16.32 BIMC), and after receiving initial direction from the City Council in February 2020 and discussions with the Planning Commission on 8/13/20 and 9/10/20, City staff developed a draft Ordinance. The Ordinance was reviewed and amended to reflect the recommendations from the Planning Commission at their meetings on 8/13/20, 9/10/20, and 10/29/20. On 11/12/20, the Planning Commission met with the Fire Chief and Deputy Fire Chief to discuss wildfire mitigation and the potential for provisions that specifically address Firewise USA standards. After that meeting, City staff worked with the BIFD to prepare draft revised text that was presented and amended at the 12/10/20 Planning Commission meeting where the ordinance was scheduled for a public hearing on 12/17/20 before the Planning Commission. At that meeting the Planning Commission made a recommendation of approval to the City Council , which is included. Additionally, comments received after the Planning Commission public hearing and the staff response are also included.

After working with City Legal counsel, per the recorded motion from Planning Commission, city staff presented City Council with the complete ordinance on April 27th, 2021. At that meeting some concerns were identified by Council and no action was taken on the ordinance with direction for staff to address problems to be identified in a list to be forwarded to the Planning Department. City staff distilled the concrete code language proposed in those notes and provided that in the staff memo for the 5/13/21 Planning Commission meeting. At the Planning Commission meeting on May 13th, 2021 the PC discussed the proposed changes to Ordinance No. 2021-07 that resulted from comments received from City Council , and set an additional meeting to further discuss those notes provided by Council. A full color coded list of those comments was distributed to the PC prior to the meeting but it was not part of the publicly available packet, it is included within this packet in its entirety for discussion. Since the 5/13/21 meeting the proposed changes from the Staff Memo presented to address the green highlighted items have been incorporated into Exhibits A and B of this packet in strikeout/underline format and highlighted to facilitate review. The yellow and blue items from the Councilmembers memo are presented for discussion and potential incorporation into this or future legislation.

ATTACHMENTS:

CITY OF BAINBRIDGE ISLAND

Department of Planning and Community Development

Memorandum

Date: May 27, 2021
To: Planning Commission
From: Nicholas Snyder, City Arborist
Subject: Ordinance No. 2021-07 – Updates to Tree and Vegetation Regulations in Chapters 16.18 and 16.32 BIMC and in BIMC 16.20.100 and BIMC 18.15.010

I. Updates to Tree Regulations: Background

At the last Planning Commission meeting on May 13th, 2021 the PC discussed proposed changes to Ordinance No. 2021-07 that resulted from comments received from City Council after their April 27th, 2021 meeting. A full color coded list of those comments is included in this packet for discussion. Only the items highlighted in green were addressed at the 5/13/21 PC meeting. Since that meeting the proposed changes from the Staff Memo presented to address the green items have been incorporated into Exhibits A and B of this packet in strikeout/underline format and highlighted to facilitate review. The yellow and blue items in the City Council comments are presented for discussion and potential incorporation into this or future legislation. Additionally, on May 15th 2021, following the 5/13/21 PC meeting, Commissioner Quitslund provided a set of responses to the remaining blue and yellow items from City Councils comments to staff. Those comments will serve to help form the conversation around the additional items identified by Council and is attached for discussion.

II. Ordinance No. 2021-07: Additional Proposed Changes

Staff believes the yellow and blue highlighted suggestions and questions contained in CM Carr's comments will 1) require additional input and direction, 2) may be beyond the scope of the original direction from Council and 3) will likely take a significant amount of time and effort to incorporate into this ordinance. Staff suggests that we revisit this list once we have had the benefit of having the proposed regulations in place and we can monitor their effectiveness.

Staff will seek Council direction on additional potential future changes and is only proposing to address those changes highlight in green during this iteration. The suggested changes identified as yellow are one's staff will likely take future action on and for those highlights in blue, there is uncertainty if action will be taken and will take further discussion. Staff would appreciate knowing if the Planning Commission has any major concerns with staff not incorporating the yellow and blue changes into this iteration.

Ordinance No.2021-07: Next Steps

Following the Planning Commission's review of the proposed code language, the Planning Commission may set a new public hearing to address revisions contained in Ordinance No. 2021-07.

III. Conclusion

Ordinance No. 2021-07 still represents the combined efforts of the City Council, Planning Commission, Bainbridge Island Fire Department, and City staff to collaborate and address issues identified with our current tree removal and vegetation maintenance code. It provides needed updates to language, and revisions to procedures that will reflect current best practices for tree and vegetation management. The updates and revisions will support responsible wildfire mitigation and provide a pathway for wider forest stewardship planning that will help prepare Bainbridge Island for the uncertain future of our forest community. Additionally, the Community Forest Best Management Practices Manual will provide a basis for tree protection and tree care that will help to preserve and maximize community resources with solid scientific recommendations. These newly proposed changes will serve to further the clarity of the language and address some of the additional issues brought forward by Council review.

ORDINANCE NO. 2021-07

[Formerly Ordinance No. 2020-28]

AN ORDINANCE of the City of Bainbridge Island, Washington, amending and revising parts of the City's tree and vegetation regulations, including Chapters 16.18 and 16.32 and Sections 18.15.010 and 16.20.100 of the Bainbridge Island Municipal Code; terminating the related interim official control set forth in Ordinance No. 2021-17; providing for interpretive authority; and providing for severability.

WHEREAS, the City Council of the City of Bainbridge Island ("City") updated the City's Comprehensive Plan in February of 2017; and

WHEREAS, the City Council has significant concerns about development and growth in the City under current regulations in the context of the vision and goals of the City's Comprehensive Plan, has been discussing how to best accommodate growth and development in both general and specific ways, and finds that there are likely to be adverse impacts on the City and its residents unless the City acts immediately to preserve the character of our community forest; and

WHEREAS, land clearing and development activities have resulted in the removal and loss of Landmark Trees on Bainbridge Island and the City has received numerous public comments expressing concern regarding the loss of Landmark Trees on Bainbridge Island; and

WHEREAS, Landmark Trees, because of their age, size, and condition, are recognized as having exceptional value in contributing to the character of the community; and

WHEREAS, the Planning Commission, Design Review Board, and the (former) Ad Hoc Tree/LID Committee have expressed concern regarding the loss of trees on Bainbridge Island and the preservation of trees is a community value supported by the policies and goals of the City's Comprehensive Plan; and

WHEREAS, on June 26, 2018, the City Council adopted Ordinance No. 2018-25, which imposed an interim official control in the form of Chapter 16.32 of the Bainbridge Island Municipal Code ("BIMC"), *Preservation of Landmark Trees*, which designates Landmark Trees based on size and species, requires a permit to remove any Landmark Tree, and imposes fines if a Landmark Tree is removed without a permit; and

WHEREAS, on October 16, 2018, the City Council authorized the City Manager to contract with a team of arborists to review and make recommendations on City regulations governing tree and vegetation removal, including Chapter 16.32 BIMC; and

WHEREAS, in response to comments and input that City staff and the City Council received regarding implementation and application of the Landmark Tree regulations, including comments from many property owners and Puget Sound Energy about difficulty in meeting the requirements of the regulations, City staff proposed amendments to the regulations to add exceptions for the type of Landmark Tree removal that would be approved through permit review; and

WHEREAS, the above described team of arborists provided their report and recommendations to City staff, and the City Council discussed that report and those recommendations at a Council study session on May 7, 2019; and

WHEREAS, the City Council instructed staff to proceed with action items identified in the May 7, 2019 staff report including drafting a new ordinance to revise the City's tree and vegetation regulations; and

WHEREAS, on February 25, 2020, the City Council endorsed the continuing work by City staff and the City Arborist to draft an ordinance that would include changes to Chapter 16.18 BIMC (Tree Removal, Forest Stewardship, and Vegetation Maintenance), Chapter 16.32 BIMC (Protection of Landmark Trees), and BIMC 18.15.010 (Development Standards and Guidelines); and

WHEREAS, at scheduled open meetings, City staff met with the Planning Commission to discuss draft regulations related to Ordinance No. 2020-28 (which was renumbered in 2021 to Ordinance No. 2021-07) on August 13, September 10, October 29, November 11, and December 10, 2020; and

WHEREAS, the Bainbridge Island Fire Department identified the need for reasonable provisions for wildfire mitigation and forest stewardship that support responsible wildfire mitigation and provide a pathway for wider forest stewardship planning; and

WHEREAS, Exhibit A of Ordinance No. 2021-07 amends BIMC Chapter 16.18 to simplify and update language and practices, consolidate tree retention requirements, provide a pathway for wildfire mitigation and other forest stewardship practices; and

WHEREAS, Exhibit B of Ordinance No. 2021-07 amends BIMC Chapter 16.32 to make the interim ordinance permanent, to simplify and update code language, expand the applicable area of the Landmark Tree Ordinance ("LTO") and improve the list of qualifying trees and characteristics; and

WHEREAS, Exhibit C of Ordinance No. 2021-07 amends BIMC Chapter 18.15 to simplify and update language, update the cities tree valuation process, revise perimeter landscaping requirements to correct a Scribner's error, and clarify tree unit allocation for shared ownership trees; and

WHEREAS, Exhibit D of Ordinance No. 2021-07 provides an exemption from the dedication of an Aquifer Recharge Protection Area (APRA) for utility maintenance and improvements on an easement not owned by the utility; and

WHEREAS, Exhibit E of Ordinance No. 2021-07 adopts the Community Forest Best Management Practices Manual which provides guidance for permitted tree protection strategies and acts as a resource for Bainbridge residents and city staff when making management decisions for tree care; and

WHEREAS, on December 17, 2020, the Planning Commission held a public hearing to consider Ordinance No. 2020-28 including Exhibits A – E, received public input, and after closing the public hearing, made a recommendation of approval of Ordinance No. 2020-28 to the City Council; and

WHEREAS, the City notified the Department of Commerce on January 21, 2021 of its intent to revise its development regulations relating to tree removals and vegetation management practices; and

WHEREAS, the City issued a State Environmental Policy Act ("SEPA") Determination of Non-Significance for Ordinance No. 2021-07 (formerly Ordinance No. 2020-28) on January 29, 2021; and

WHEREAS, at a scheduled open meeting, the City Council considered Ordinance No. 2021-07 on April 27, 2021, took no action on the Ordinance and the Council expressed a collective interest in further considering the ordinance at a future meeting; and

WHEREAS, on May13 and 27, 2021, City staff returned to the Planning Commission to discuss additional edits to Ordinance No. 2021-07 based on City Council comments; and

WHEREAS, at a scheduled open meeting on June 10, 2021, the Planning Commission held the second public hearing to consider Ordinance No. 2021-17 and receive public comment, and after closing the public hearing, made a recommendation of approval of Ordinance No. 2021-17 to the City Council; and

WHEREAS, at a scheduled open meeting on July 13, 2021, the City Council discussed Ordinance No. 2021-17 and made a motion to forward Ordinance No. 2021-17 to the July 27, 2021 consent agenda; and

WHEREAS, at a scheduled open meeting on July 27, 2021, the City Council approved Ordinance No. 2021-17 on the consent agenda; and

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BAINBRIDGE ISLAND, WASHINGTON, DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. Findings of Fact. The recitals set forth above are hereby adopted as findings of fact in support of this ordinance, as well as supplemental findings of fact to the related ordinances that preceded this ordinance regarding the interim official control regulating Landmark Trees as described herein.

Section 2. Chapter 16.18 of the Bainbridge Island Municipal Code is hereby amended and revised as set forth in the attached Exhibit A, which is incorporated by reference as if fully set forth herein.

Section 3. Chapter 16.32 of the Bainbridge Island Municipal Code is hereby amended and revised as set forth in the attached Exhibit B, which is incorporated by reference as if fully set forth herein.

Section 4. Termination of Interim Official Control Set Forth in Ordinance No. 2021-17. The amendments and revisions to Chapter 16.32 of the Bainbridge Island Municipal Code that are being adopted via this ordinance will result in regulations that meet what was identified as the remaining work in the work plan for the current interim official control that has been in place most recently via Ordinance No. 2021-17 and the directly related ordinances that preceded Ordinance No. 2021-17, which effectuated an extension of an existing interim official control. This Ordinance No. 2021-17 hereby terminates the interim official control set forth in Ordinance No. 2021-17 upon the effective date of this Ordinance No. 2021-07.

Section 5. Section 18.15.010 of the Bainbridge Island Municipal Code is hereby amended and revised as set forth in the attached Exhibit C, which is incorporated by reference as if fully set forth herein.

Section 6. Section 16.20.100 of the Bainbridge Island Municipal Code is hereby amended and revised as set forth in the attached Exhibit D, which is incorporated by reference as if fully set forth herein.

Section 7. The Community Forest Best Management Practices Manual is hereby adopted as set forth in the attached Exhibit E, which is incorporated by reference as if fully set forth herein.

Section 8. Interpretive Authority. The City of Bainbridge Island Director of Planning and Community Development, or designee, is hereby authorized to issue official interpretations arising under or otherwise necessitated by this ordinance.

Section 9. Severability. Should any section, paragraph, sentence, clause, or phrase of this ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this ordinance be preempted by state or federal law or regulation, such decision or preemption shall not affect the validity of the remaining portions of this ordinance or its application to other persons or circumstances.

Section 10. This ordinance shall take effect and be in force five (5) days from its passage and publication as required by law.

PASSED by the City Council this _____ day of _______________, 2021.

APPROVED by the Mayor this _____ day of _______________, 2021.

____
Rasham Nassar, Mayor

ATTEST/AUTHENTICATE:

____
Christine Brown, CMC, City Clerk

FILED WITH THE CITY CLERK:	, 2021
PASSED BY THE CITY COUNCIL:	_______, 2021
PUBLISHED:	_______, 2021
EFFECTIVE DATE:	_______, 2021
ORDINANCE NUMBER:	2021-07
ATTACHED EXHIBITS:	Exhibits A, B, C, D, and E

Exhibit A

Chapter 16.18
TREE REMOVAL, FOREST STEWARDSHIP, AND VEGETATION MAINTENANCE

16.18.010 Overview.

A. The policies presented in this chapter rest on an assumption that in, the care of trees and vegetation on their property, citizens will be guided by common sense and best practices, responsive to the purposes stated in BIMC 16.18.025. Sanctions shall be applied to activities that are found by the planning director to be reckless and destructive, and to any action or negligence that adversely affects a neighboring property, pursuant to the provisions of BIMC 16.18.120 and other applicable provisions of the code.

B. To a large extent, work carried out in landscaped yards and forested areas does not require a permit (see BIMC 16.18.040). However, property owners who are considering major changes to the landscape and trees on their property should seek advice and professional services from a licensed arborist who is certified by the American Society of Consulting Arborists or the International Society of Arboriculture~~, or a landscape professional who is certified by the city~~.

C. This chapter is one of several in the municipal code that pertain to the care of trees, vegetation, and forested areas on Bainbridge Island. Its policies and nonregulatory provisions pertain especially to the plans and ongoing activities of island residents, outside of their homes or places of business but on their own property, when the use and enjoyment of the property involves stewardship and maintenance of trees and vegetation. (Ord. 2018-19 § 1 (Exh. A), 2018)

16.18.020 Findings.

A. Forested areas and trees on individual lots are integral parts of Bainbridge Island's character; they enhance the city's appearance and livability, as well as providing significant environmental benefits and natural resource values.

B. Conserving and managing the island's forested areas and native vegetation is a central goal of the Bainbridge Island Comprehensive Plan: see Guiding Principles 1 and 5 and related Policies; Goals LU-6, 12 and 13; EN-3, 4, 5, 18 and 19; WR-3 and 4; and Policies LU 4.10 and EN 15.3.

C. Trees are valued by homeowners and, when well cared for, enhance property values.

D. Removal of trees and understory vegetation, combined with extensive disturbance of soils, cause loss of habitat and wildlife, runoff and soil erosion, degradation of surface water and aquifer recharge, and adverse impacts on air quality, as well as loss of aesthetic appeal.

E. The community forest resources of the island are best understood as a mosaic, with some large and many small pieces, on publicly owned and private properties. When clearing for development further fragments the mosaic, both individual and community interests are affected.

F. On Bainbridge Island and elsewhere, examples exist to demonstrate that development for residential and other uses can be compatible with careful conservation of forest conditions and other natural features; and that such development can be cost-effective, attractive, energy-efficient, and well adapted to our climate. (Ord. 2018-19 § 1 (Exh. A), 2018)

16.18.025 Purposes.

This chapter is adopted for the following purposes:

A. To promote the public health, safety, and general welfare of Bainbridge Island citizens without preventing the reasonable use of private property.

B. To preserve and enhance the city's physical and aesthetic character, to promote the healthy functioning of our island's natural systems, and to provide economic benefits to the community, for the sake of present and future generations.

C. To implement the purposes of the State Growth Management Act relating to conservation of natural resources, pursuant to Chapter 36.70A RCW.

D. To implement goals and policies in the ~~current~~ ~~c~~Comprehensive ~~p~~Plan, the Community Forest Management Plan ~~(2006)~~, the Bainbridge Island Open Space Study ~~(October 2008)~~, and the Bainbridge Island Community Wildfire Protection Plan ~~(2010), or subsequent updated versions~~.

E. To promote forest stewardship practices and carefully planned development that results in minimal disturbance to the prior conditions of a property and neighboring properties.

F. To implement a long-range policy of maintaining the island's forest canopy cover while taking measures to prevent wildfires and protect structures in accordance with the minimum standards of Firewise USA® or recommendations ~~of~~ from the Bainbridge Island ~~f~~Fire ~~d~~Department.

G. To allow limited tree and vegetation removal to provide for solar access, agriculture and gardens.

H. To promote infiltration of stormwater and aquifer recharge; to minimize erosion and prevent pollution; to prevent landslides; to protect the waters of Puget Sound and the quality and quantity of water in wells.

I. To maintain in a healthy state significant trees, clusters of trees, and forested areas, allowing for thinning, pruning, removal of invasive and undesirable vegetation, selective harvest and replanting, developing and maintaining trails, and removal of dead or dangerous trees. (Ord. 2018-19 § 1 (Exh. A), 2018)

16.18.030 Applicability.

Provisions of this chapter apply citywide to all properties where trees and ~~naturally occurring~~ vegetation are found, except where the following chapters of the municipal code apply:

A. This chapter does not apply to any portion of a parcel that is identified as a stream, wetland, or geologically hazardous area ~~critical area~~ pursuant to Chapter 16.20 BIMC, Critical Areas, this includes ~~including~~ designated aquifer recharge protection areas (ARPAs) ~~or~~and prescribed critical area buffers or setbacks. Chapter 16.20 BIMC applies to critical areas, designated ARPAs, and buffer zones, and critical area setbacks.

B. This chapter does not apply to the portion(s) of a shoreline property within ~~200 feet landward of an ordinary high water mark~~,the shoreline jurisdiction where the regulations of Chapter 16.12 BIMC (the Shoreline Master Program) apply. (Ord. 2018-19 § 1 (Exh. A), 2018)

16.18.040 Activities allowed without a permit.

The following activities are allowed without a tree removal/vegetation maintenance permit, subject to any other applicable city regulations:

A. Routine landscaping and maintenance of vegetation, such as pruning and planting, removal of invasive/exotic species, management of brush and seedling trees. Pruning ~~should~~ shall comply with ANSI A300 (Part 1 – 2017), Tree, Shrub and Other Woody Plant Management – Standard Practices, to maintain long term health. This includes maintenance of trees and vegetation required to be retained or planted through a land use permit such as a subdivision, site plan review, or conditional use permit.

B. Outside of the Mixed Use Town Center and High School Road zoning districts, removal of some healthy significant trees (see BIMC 16.18.130, Definitions) is allowed without a permit, except for trees required to meet any tree retention provisions of this chapter, BIMC 18.15.010 (Landscaping, screening, and tree retention, protection and replacement), Chapter 17.12 BIMC (Subdivision Design Standards) or other applicable provisions of the code.

1. On a lot that is larger than one acre, a property owner may remove up to six significant trees in any 36-month period without a permit.

2. On a lot one acre or less in size, a property owner may remove up to three significant trees in any 36-month period without a permit.

3. After the tree removal limits of this section have been reached, see BIMC 16.18.050, 16.18.060, and 16.18.070 related to obtaining a tree removal/vegetation maintenance permit.

C. Removal of trees and ground cover in emergency situations involving immediate danger to life or structure or substantial fire hazards. If this activity would ordinarily require a tree removal/vegetation maintenance permit, it shall be obtained as soon as possible after the emergency situation is stabilized.

D. Removal of dead or fallen trees. The city encourages property owners to leave dead trees in place for ecological benefit such as wildlife snags or nurse logs where possible. If a standing dead tree poses a hazard, creating a shorter wildlife snag is recommended.

E. Routine maintenance activities in improved and unimproved rights-of-way and required roadside buffers, including removal of hazard trees and invasive/exotic species, trimming of overgrown hedges, thinning and planting to replace removed vegetation to control vegetation on road and utility rights-of-way (see Chapter 12.04 BIMC) where all portions of the project comply with applicable right-of-way regulations found in Chapter 15.12 BIMC.

F. The installation and maintenance of fire hydrants, water meters, and pumping stations, and street furniture by the city or utility companies or their contractors.

G. Pruning and limbing of significant trees that are required to be retained, to remove dead or hazardous branches, and to improve the tree's form and long-term vitality, provided that such work complies with ANSI A300 (Part 1 –

2017), Tree, Shrub and Other Woody Plant Management – Standard Practices, or is done by an ISA certified arborist. (Ord. 2018-19 § 1 (Exh. A), 2018)

H. Wildfire mitigation activities, other than tree removals requiring a permit pursuant to BIMC 16.18.050 or vegetation clearing under BIMC 16.18.050.A., within a 30-foot defensible space around primary structures, that bring a property up to the current minimum standards of Firewise USA®, the Bainbridge Island Community Wildfire Protection Plan, or as recommended by the Bainbridge Island Fire Department.

16.18.050 Activities requiring a permit.
The following activities require an applicant to obtain a tree removal/vegetation maintenance permit prior to commencing:

A. A permit is required for any tree removal or vegetation ~~maintenance~~ clearing in an area required to be retained or planted, pursuant to BIMC 18.15.010, through a land use permit such as a subdivision, a site plan review, or a conditional use permit. Tree retention requirements ~~for the R-2.9, R-3.5 and R-4.3 single-family residential zones (subsection E of this section) also apply (see below)~~ in subsection H-J of this section also apply.

B. For developed properties located within the Mixed Use Town Center and High School Road zoning districts, a tree removal/vegetation maintenance permit is required for removing any tree eight inches in diameter or greater, measured four and one-half feet above grade. The applicant must demonstrate that the requested removal meets one of the following criteria:

1. The removal is necessary to allow reasonable use or enable permitted construction, and no alternative is feasible; or

2. The removal is necessary to maintain utilities, provide access, or fulfill the terms of an easement or covenant recorded prior to the adoption of the ordinance codified in this chapter; or

3. The tree is dead, or determined to have a Tree Risk Rating ~~be hazardous, as certified~~ between moderate and extreme by an International Society of Arboriculture (ISA) Tree Risk Assessment Qualified (TRAQ) arborist who:

a. Identifies the tree part(s) and defect(s) that increase the likelihood of failure; and

b. Identifies the target(s) and site factors contributing to increased likelihood of impact; and

c. Utilizes a timeframe of five years or less; and

d. Utilizes the Matrixes in tables 16.18.050-1 and 16.18.050-2 to determine Tree Risk Rating.

16.18.050-1: Likelihood Matrix

Likelihood of Failure	Likelihood of Impact			
	Very Low	Low	Medium	High
Imminent	Unlikely	Somewhat Likely	Likely	Very Likely
Probable	Unlikely	Unlikely	Somewhat Likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat Likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

16.18.050-2: Tree Risk Rating Matrix

Likelihood of Failure and Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very Likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat Likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

C. For undeveloped properties within the Mixed Use Town Center and High School Road zoning districts, a tree removal/vegetation maintenance permit is required to remove any tree except trees that are hazardous, dead, fallen, or contributing to an emergency. The tree removal permit will be reviewed for consistency with any applicable provisions of BIMC 18.15.010 that would apply to future development permits.

D. For properties located outside of the Mixed Use Town Center and High School Road zoning districts, a tree removal/vegetation maintenance permit is required for removing more than the number of significant trees allowed without a permit, pursuant to BIMC 16.18.040.B. A permit is required:

1. On a lot that is larger than one acre, a property owner needs an approved permit to remove seven or more significant trees in any 36-month period, up to any retention requirements of subsections ~~E~~H and J of this section (if applicable).

2. On a lot one acre or less in size, a property owner needs an approved permit to remove four or more significant trees in any 36-month period, up to any retention requirements of subsections ~~E~~H and J of this section (if applicable).

E. For properties located within the Mixed-Use Town Center or High School Road Zones I and II, a tree removal/vegetation maintenance permit is required for vegetation and underbrush clearing of over 2,500 square feet.

F. For properties located outside the Mixed-Use Town Center or High School Road Zones I and II, a tree removal/vegetation maintenance permit is required for vegetation and underbrush clearing of over 7,000 square feet.

G. Removal or shortening of a wildlife snag that was kept or created as part of a mitigation plan resulting from a land use permit requires a tree removal/vegetation maintenance permit.

~~E~~ H. In the R-4.3, R-3.5 and R-2.9 zoning districts, existing single-family residential development, developing single-family residences and vacant parcels shall retain at least 30 tree units per acre~~,~~ or, if less than 30 Tree units per acre are present on the parcel, at least as many tree units as the property had on ~~October 31, 2018, pursuant to BIMC 18.15.010.G~~ the date of the tree removal permit application. Tree removals that bring a parcel below this threshold will require a tree removal/vegetation maintenance permit. Calculating tree units shall be done using Table 18.15.010-6 and replanting may be required as described in BIMC 18.15.010.G. ~~Replanting may be required as described in BIMC 18.15.010.G. (Ord. 2018-19 § 1 (Exh. A), 2018)~~

I. In the MUTC Central Core and Ferry Terminal Overlay districts, any parcel shall retain at least 30 tree units per acre or, if less than 30 Tree units per acre are present on the parcel, at least as many tree units as the property had on the date of the tree removal permit application. Tree removals that bring a parcel below this threshold will require a tree removal/vegetation maintenance permit. Calculating tree units shall be done using Table 18.15.010-6 and replanting may be required as described in BIMC 18.15.010.G.

J. In the Mixed Use Town Center Ericksen Avenue, Madison Avenue, and gateway overlay districts, and each parcel in the R-5, R-8, R-14, HSR I and II, and NC districts, and for permitted nonresidential developments in the R-4.3, R-3.5, and R-2.9 zone districts, the parcel shall retain at least 40 tree units per acre or, if less than 40 Tree units per acre are present on the parcel, at least as many tree units as the property had on the date of the tree removal permit application. Tree removals that bring a parcel below this threshold will require a tree removal/vegetation maintenance permit. Calculating tree units shall be done using Table 18.15.010-6 and replanting may be required as described in BIMC 18.15.010.G.

16.18.060 General regulations and standards.

A. While nonnative and invasive species should be kept under control and eradicated if possible, native understory vegetation shall be maintained and land disturbing activity shall be kept to a minimum. Stump pulling and use of heavy equipment is only allowed if the activity will not affect the health of adjacent trees.

B. An applicant shall protect any trees or landscaped area that must be retained during approved tree removal or vegetation maintenance work, pursuant to the protection provisions of BIMC 18.15.010.C.4 and the Community Forest Best Management Practices Manual.

C. Once a portion of a property is cleared, the property owner shall ensure that invasive species do not reestablish or expand into cleared areas.

D. Any tree or vegetation removal or maintenance undertaken without a permit pursuant to this section shall be done to ensure long-term health of the trees or vegetation. A property owner shall follow ~~the~~ ANSI A300 (Part 1 – 2017), Tree, Shrub and Other Woody Plant Management – Standard Practices (Pruning)~~, or 60 percent live-crown ratio, whichever standard is more appropriate for the species~~.

E. A forest practice permit from the State Department of Natural Resources may be required pursuant to Chapter 76.09 RCW. Failure to obtain a forest practice permit when applicable shall be grounds for denial of all applications for permits or approvals, including building permits and subdivision approvals, relating to nonforestry uses of the land for a period of six years, in accordance with RCW 76.09.060. (Ord. 2018-19 § 1 (Exh. A), 2018)

16.18.070 Tree removal/vegetation maintenance permit administration and review process.

A. For activities requiring a permit, the process begins with submission of a complete permit application, usually after discussion of the proposed activity with a member of the planning staff.

B. Tree removal and vegetation maintenance activities shall comply with this chapter's provisions for permits and related regulations. Permits for tree removal/vegetation maintenance may require the planting of replacement trees and/or other city permits such as a site assessment review (Chapter 15.19 BIMC).

C. The planning director shall grant a tree removal/vegetation maintenance permit if the application meets the requirements of this chapter and is consistent with other relevant city codes, including but not limited to Chapters 15.19, 15.20, 16.12, 16.20 and 17.12 BIMC and BIMC 18.15.010. If the tree removal permit application is denied, the decision may be appealed pursuant to BIMC 16.18.110.

D. No work authorized by a tree removal/vegetation maintenance permit shall commence until a permit notice has been posted by the applicant at a conspicuous location on the subject property. The notice shall describe specific plans for tree removal and land disturbing activity and shall remain posted in said location until the authorized tree removal has been completed.

E. Any tree removal/vegetation maintenance permit granted under this chapter shall expire one year from the date of issuance. Upon a showing of good cause, the permit may be extended for six months by the planning director. Approved tree removal permits shall not be amended without authorization of the planning director.

F. A tree removal/vegetation maintenance permit may be suspended or revoked by the planning director because of incorrect information supplied or any violation of the provisions of this chapter. (Ord. 2018-19 § 1 (Exh. A), 2018)

16.18.080 After-the-fact tree removal/vegetation maintenance permit.
A. In response to a report that one or more trees have been removed improperly or vegetation maintenance activity did not comply with requirements of this code, the city's code enforcement officer shall investigate. If in fact the reported activity was legitimate without a permit, no action will be taken. If the reported activity would have been allowed if a permit had been applied for, an after-the-fact tree removal/vegetation maintenance permit shall be issued. The person or persons responsible for unauthorized tree removal shall be made aware of all the conditions for approval and any applicable regulations and remedies. The fee for an after-the-fact permit shall be established by a resolution of the city council.

B. If the reported activity would not have been permitted, entirely or in some particulars, the code enforcement officer, in consultation with the planning director or the city attorney, shall follow the procedures for enforcement and penalty in BIMC 16.18.120. (Ord. 2018-19 § 1 (Exh. A), 2018)

16.18.085 Forest Stewardship Plan
A. Tree Removal and Vegetation Management activities that require a permit and are planned over multiple years may be permitted for up to a 5 year period after the submittal and City review of a Forest Stewardship Plan. The plan shall include the following documents as applicable:

1. A project narrative that addresses:
   a. Goals of the project;
   b. Compliance with all applicable tree and vegetation retention regulations including those that resulted from a land use permit such as a subdivision, site plan review, or conditional use permit;
   c. Canopy cover impacts;
   d. Wildlife habitat impacts; and
   e. Wildfire impacts.

2. A site plan identifying existing vegetation and proposed activities;
3. A vegetation activity timeline; and
4. A mitigation plan developed according to BIMC 16.18.090.
5. The administrator may include additional conditions for a site-specific analysis by a qualified professional at the applicant's expense.

B. This permit type will be reviewed under procedures in BIMC 16.18.070.

C. This permit type is not applicable within the shoreline jurisdiction, or any portion of a parcel that is identified as a stream, wetland, geologically hazardous area, ~~critical area or~~ a critical area buffer, or a designated Aquifer Recharge Protection Area (ARPAs).

16.18.090 Mitigation and restoration.

A. For alterations to or removal of significant trees or vegetation that require a permit under this chapter, the following minimum performance standards for mitigation shall be met when replanting or other mitigation is required; provided, that if the applicant can demonstrate that greater functions or values can be obtained through the application of different standards, these standards may be modified:

1. ~~Historic structural and functional values~~ Vegetation types, size, distribution, and habitat functions shall be restored, including ~~water quality and habitat functions~~ stormwater infiltration;

2. Historic soil ~~types and configuration~~ organic matter and infiltration rate shall be replicated;

3. ~~The disturbed area shall be replanted with vegetation that replicates the vegetation historically found on the site in species types, sizes, and densities.~~ The historic environmental functions and values should be replicated at the location of the alteration; and

4. Any applicable tree retention or replanting requirements shall be met through restoration~~, if required~~ of disturbed areas when possible.

B. Information demonstrating compliance with the requirements of this section shall be submitted to the director in the form of a restoration plan that includes the following as applicable:

1.Replanting Plan

2. Soils amendment plan (including decompaction methods)

3. Site Plan (indicating the area to be restored). (Ord. 2018-19 § 1 (Exh. A), 2018)

16.18.100 Performance assurance.

A. The planning director may require, as a condition for the granting of a permit, that the applicant furnish a performance assurance in a form approved by the planning director, in order to obligate the applicant, after the approved tree removal has been accomplished, to complete all required replanting, erosion control, and cleanup on the property. The surety device shall be in an amount equal to the estimated cost of such services, with surety and conditions satisfactory to the planning director.

B. In order to stay enforcement, the director may choose to enter into a voluntary correction agreement (VCA). This is a civil contract entered between the city and the applicant. The VCA will outline several performance items that will be required within an agreed-upon time frame. (Ord. 2018-19 § 1 (Exh. A), 2018)

16.18.110 Appeals.

Appeals of the planning director's decision on a tree removal/vegetation maintenance permit application shall be in accordance with the administrative decision procedures established in Chapter 2.16.020.R.1 BIMC. (Ord. 2018-19 § 1 (Exh. A), 2018)

16.18.120 Violations, restoration and enforcement.

A. It is a violation of this chapter for any person to fail to comply with a requirement of this chapter. It is also a violation of this chapter for any person to:

1. Initiate or maintain, or cause to be initiated or maintained, the removal of significant tree(s) or native vegetation within the city without first obtaining permits or authorizations required by this chapter, or in a manner that violates the terms or conditions of such permits or authorizations or this chapter;

2. Misrepresent any material fact in any application, plans or other information submitted to obtain permits or authorizations under this chapter; or

3. Remove or deface any sign, notice, complaint, or order required by or posted in accordance with this chapter.

B. When a significant tree or vegetation has been removed or altered in violation of this chapter, all ongoing development work shall stop, and the significant tree or vegetation shall be restored or replaced. The city shall have the authority to issue a stop work order to cease all ongoing development work, and order restoration, rehabilitation, or replacement measures at the owner's or other responsible party's expense to compensate for violation of provisions of this chapter.

C. Restoration Plan Required. All development work shall remain stopped until a restoration plan is prepared and approved by the director. Such a plan shall be prepared by a qualified professional using the best available science and shall describe how the actions proposed meet the minimum requirements described in BIMC 16.18.090. The director shall, at the violator's expense, seek expert advice in determining the adequacy of the plan. Inadequate plans shall be returned to the applicant or violator for revision and resubmittal.

D. Site Investigations. The director is authorized to make site inspections and take such actions as are necessary to enforce this chapter. The director shall present proper credentials and make a reasonable effort to contact any property owner before entering onto private property.

E. Penalties. Any development or activity carried out contrary to the provisions of this chapter shall constitute a public nuisance and may be enjoined as provided by the statutes of the state of Washington. Enforcement of this chapter and the imposition of penalties for violations of this chapter shall be as provided for in Chapter 1.26 BIMC; provided, that in addition to the civil penalties provided for in BIMC 1.26.090, an additional penalty shall be imposed on any person, party, firm, corporation, property owner, or other legal entity who fails to complete a required restoration plan, who conducts any disturbance (including cutting or removing trees or vegetation) in violation of this chapter, or who is otherwise in violation of this chapter.

For such violations, the additional penalty shall be in the amount equal to 200 percent of the cost of restoration as approved under a restoration plan pursuant to subsections B and C of this section for a minor violation. For a major violation, the additional penalty shall be in the amount equal to 200 percent of the cost of restoration as approved under a restoration plan pursuant to subsections B and C of this section, or $2,500, whichever is greater. The director shall determine whether the disturbance is a minor or major violation. Any person, party, firm, corporation, or other legal entity who knowingly and willfully refuses to complete a required restoration pursuant to subsections C and D of this section shall be guilty of a misdemeanor punishable by not more than 30 days in jail and/or not more than a $1,000 fine. (Ord. 2018-19 § 1 (Exh. A), 2018)

16.18.130 Definitions.

"Applicant" means a person, corporation, or organization that files an application for a land use or development permit with the city: either the owner of the land in question, or the authorized agent of such a person.

"Aquifer recharge protection area (ARPA)" means a portion of a development site comprised of native or equivalent vegetation in which existing vegetation, topography and supporting soils are free of development, uses or activities detrimental to the aquifer recharge of the total site area.

"Arborist" means an individual engaged in the profession of arboriculture who, through experience, education, and related training, possesses the competence to provide for or supervise the management of trees and other woody plants. Must be concurrently an International Society of Arboriculture (ISA) Certified Arborist to perform any role required of a Certified Arborist.

"Arborist, ISA Certified" means an arborist holding a current International Society of Arboriculture (ISA) Certified Arborist credential.

"Arborist, Tree Risk Assessment Qualified (TRAQ)" means an arborist who has successfully completed the International Society of Arboriculture (ISA) TRAQ training course and assessment and holds a valid ISA TRAQ credential.

"Clearing" means the destruction and removal of vegetation by manual, mechanical, or chemical methods.

"Dead Tree" means a tree that has no live tissue or is determined to have less than 10% live tissue by a Tree Risk Assessment Qualified ISA Arborist.

"Hazard Tree" means a tree that has been found to be high or extreme risk, by an International Society of Arboriculture (ISA) Tree Risk Assessment Qualified (TRAQ) arborist who identifies criteria located in BIMC 16.18.050.

"Invasive/exotic species" means opportunistic plant species ~~(either native or non-native)~~ that colonize disturbed ecosystems and may come to dominate the plant community in ways that are seen by us as reducing the values provided by the previous plant community.

"Land disturbing activity" means any activity that results in a change in the existing soil cover (both vegetative and nonvegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to, clearing, grading, filling and excavation. Compaction that is associated with stabilization of structures and road construction shall also be considered a land disturbing activity. Vegetation maintenance practices are not considered land disturbing activity. Stormwater facility maintenance is not considered land disturbing activity if conducted according to established standards and procedures.

"Low impact development (LID)" means a stormwater and land use management strategy that strives to mimic predisturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design.

"Low impact development best management practices (LID BMPs)" means distributed stormwater management practices, integrated into a project design, that emphasize predisturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration. LID BMPs include, but are not limited to: bioretention, rain gardens, permeable pavements, roof downspout controls, dispersion, improvements to soil quality and depth, minimal excavation foundations, vegetated roofs, and water reuse.

"Significant tree" means a: (1) a live evergreen tree 10 inches in diameter or greater, measured four and one-half feet above existing grade; or (2) a live deciduous tree 12 inches in diameter or greater, measured four and one-half feet above existing grade; or (3) in the Mixed Use Town Center and High School Road zoning districts, any live tree eight inches in diameter or greater, measured four and one-half feet above existing grade.~~; or (4) any live trees located within a required critical area or critical area buffer as defined in Chapter 16.20 BIMC.~~

"Vegetation" means plant matter, including trees, shrubs and ground cover. (Ord. 2018-19 § 1 (Exh. A), 2018)

"Wildlife Snag" means a standing tree that is purposefully managed for wildlife habitat or a tree that has been partially removed and whose trunk has been left standing at six feet tall or taller to provide quality habitat for wildlife species.

Exhibit B

Chapter 16.32
PROTECTION OF LANDMARK TREES

16.32.005 Applicability.

This chapter applies to all zoning districts except R-0.4, R-1, and R-2.~~only to those properties located within the Winslow Master Plan Study Area as shown in Figure 2.3 of the Winslow Master Plan, updated November 8, 2006. (Ord. 2019-17 § 7, 2019)~~

16.32.010 Definitions.

A. “City attorney” means the city attorney of the city of Bainbridge Island, or their designee.

B. “Dead Tree” means a tree that has no live tissue or is determined to have less than 10% live tissue by a Tree Risk Assessment Qualified ISA Arborist.

~~B~~C. “Diameter breast height” means the diameter of a tree measured at four and one-half feet above the ground on the uphill side of the tree.

~~C~~D. “Landmark trees” means trees, located on Bainbridge Island, that are unique because of their age, size, species, historical significance, or aesthetic quality and meet the criteria established by this chapter.

~~D~~E. “Planning director” means the director of the planning and community development department of the city of Bainbridge Island, or their designee.

F. “Removal” means cutting of a tree with the intent to kill it, including wildlife snag creation wherein all live material is removed from the tree.

~~E~~G. “Replacement tree” means a tree that is of a species native and indigenous to the site where a landmark tree was removed and is a minimum height~~size~~ of six feet ~~in height~~ measured from top of the root flare, with a minimum trunk diameter of one inch measured at four inches above the top of the root flare for both evergreen and deciduous trees.

~~F~~H. “Size” means the diameter breast height of a tree. (Ord. 2018-42 § 1, 2018: Ord. 2018-25 § 2, 2018)

16.32.015 Exemptions.

In the following circumstances, a removal of landmark tree permit shall not be required pursuant to this section:

A. The tree(s) at issue is/are dead;

B. For routine maintenance activities required to control vegetation on road, access, or utility rights-of-way or easements, including tree removal, pruning, and thinning; or

C. For Class II and Class III forest practices regulated by the Washington State Department of Natural Resources under Chapter 76.09 RCW. (Ord. 2018-45 § 2, 2018)

16.32.020 Landmark tree criteria.

Landmark trees are trees that meet the following criteria for their species or are known to be 100 years old or older:

Species	Size (Greater than or equal to)
Birch (Betula ~~papyrifera~~ spp.)	30"
Beech (Fagus ~~grandifolia~~ spp.)	36"
Catalpa (Catalpa speciosa)	36"
American Elm (Ulmus americana)	30"
Douglas Fir (Pseudotsuga menziesii)	40"
Grand Fir (Abies grandis)	40"
Horsechestnut (Aesculus hippocastanum)	40"
Western Hemlock (Tsuga heterophylla)	30"
~~Black Locust (Robinia pseudoacacia)~~	~~30"~~
Lombardy Poplar (Populus nigra)	38"
Pacific Madrone (Arbutus menziesii)	24"
Bigleaf Maple (Acer macrophylum)	36"

Species	Size (Greater than or equal to)
Silver Maple (Acer saccharinum)	36"
Monkey Puzzle Tree (Araucaria araucana)	36"
Monterey Pine (Pinus radiata)	30"
Oregon White Oak (Quercus garryana)	30"
Pacific Yew (Taxus brevifolia)	20"
Pin Oak (Quercus palustris)	30"
Red Oak (Quercus rubra)	38"
Ponderosa Pine (Pinus ponderosa)	30"
Western White Pine (Pinus monticola)	30"
Sitka Spruce (Picea sitchensis)	36"
Sycamore (Platanus occidentalis)	36"
English Walnut (Juglans regia)	30"
Western Red Cedar (Thuja plicata)	30"
Coast Redwood (Sequoia sempervirens)	30"
Japanese ~~Laceleaf~~ Maple	12"
Pacific Dogwood (Cornus nautalii)	20”
Atlas Cedar (Cedrus atlantica)	36”
Deodar Cedar (Cedrus deodara)	36”
Black Walnut (Juglans nigra)	24”
Red Maple (Acer rubrum)	36”

Species	Size (Greater than or equal to)
Giant Sequioa (Sequoiadendron giganteum)	40”
Weeping Willow (Salix babylonica)	30”
Shore Pine (Pinus contorta)	24”
Port Orford Cedar (Chamaecyparis lawsoniana)	30”
Cherry (Prunus spp.)	24”

(Ord. 2018-42 § 1, 2018: Ord. 2018-25 § 2, 2018)

16.32.030 Landmark tree retention.

A. Except as otherwise allowed under this chapter, no person, corporation, or other legal entity shall remove a landmark tree without having obtained approval from the planning director.

B. Prior to the removal of a landmark tree, any person, corporation, or other legal entity seeking to remove a landmark tree must submit an application for removal of a landmark tree, along with a fee to be established by resolution of the city council, to the department of planning and community development.

C. Upon receipt of an application for removal of a landmark tree, the planning director will review the application materials and consider the request based upon the criteria outlined in this chapter and any other city regulations that apply to the tree requested for removal, such as, but not limited to, Chapter 15.19 BIMC, Site Assessment Review, Chapter 16.12 BIMC, Shoreline Master Program, Chapter 16.20 BIMC, Critical Areas, and BIMC 18.15.010, Landscaping, screening, and tree retention, protection and replacement, or any other tree retention regulations applied through a land use permit.

D. The planning director shall approve the removal, deny the removal, or request additional information. The planning director shall only approve the removal of a landmark tree if all other applicable city regulations are met and upon a finding that at least one of the following criteria is met:

1. The removal is necessary to enable construction on or reasonable use of the property, and no other alternative is feasible; or

2. The removal is necessary to fulfill the terms of an easement or covenant recorded prior to the adoption of the ordinance codified in this chapter; or

3. The tree is ~~diseased, or otherwise determined to be a hazardous tree as determined by a qualified professional pursuant to BIMC 18.15.010.C.1.c.~~ determined to have a high or extreme Tree Risk Rating by an ISA certified TRAQ Arborist who:

a. Identifies the tree part(s) and defect(s) that increase the likelihood of failure;

b. Identifies the target(s) and site factors contributing to increased likelihood of impact;

c. Utilizes a timeframe of five years or less; and

d. Utilizes the Matrixes in tables 16.32.030-1 and 16.32.030-2 to determine the Tree Risk Rating.

16.32.030-1: Likelihood Matrix

Likelihood of Failure	Likelihood of Impact			
	Very Low	Low	Medium	High
Imminent	Unlikely	Somewhat Likely	Likely	Very Likely
Probable	Unlikely	Unlikely	Somewhat Likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat Likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

16.32.030-2: Tree Risk Rating Matrix

Likelihood of Failure and Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very Likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat Likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

~~In deciding whether the removal of a landmark tree is necessary under subsection D.1 or 2 of this section, the planning director shall consider all land use regulations applied to the subject property, such as: Chapter 15.19 BIMC, Site Assessment Review, Chapter 16.12 BIMC, Shoreline Master Program, Chapter 16.20 BIMC, Critical Areas, or any other tree retention regulations applied through a land use permit.~~

E. If the planning director grants an application for removal of a landmark tree upon a finding that the removal is necessary to enable construction on or reasonable use of the property, and no other alternative is feasible, then the property owner that submitted the application shall be required to provide mitigation through the planting of replacement trees on the property from which the landmark tree was removed in accordance with the following:

1. The quantity of replacement trees is calculated by multiplying the diameter breast height of the subject landmark tree by 50 percent to establish the number of replacement inches; and

2. The total number of replacement trees is determined by the total caliper inches of Replacement Trees equaling or exceeding the required tree replacement inches established in subsection E.1 of this section.

F. In lieu of planting the replacement trees prescribed in subsection E of this section, an applicant may satisfy the tree replacement requirements by:

1. Planting at least three replacement trees on the property from which the landmark tree was removed; and

2. Contributing to the Bainbridge Island tree fund at a rate of $500.00 per each replacement inch not accounted for in the planting of replacement trees; and

3. The sum of the tree replacement inches accounted for by contributing to the Bainbridge Island tree fund and the total caliper inches of the replacement trees planted shall not be less than the total replacement inches calculated in subsection E of this section. (Ord. 2018-45 §§ 3, 4, 2018; Ord. 2018-42 § 1, 2018: Ord. 2018-32 § 2, 2018: Ord. 2018-25 § 2, 2018)

16.32.035 - Performance assurance.

A. The planning director may require, as a condition for the granting of a permit, that the applicant furnish a performance assurance in a form approved by the planning director, in order to obligate the applicant, after the approved tree removal has been accomplished, to complete all required replanting, erosion control, and cleanup on the property. The surety device shall be in an amount equal to the estimated cost of such services, with surety and conditions satisfactory to the planning director.

16.32.040 Emergencies.
A. In emergency situations involving immediate danger to life or real property, removal of a landmark tree is permitted without first obtaining approval from the planning director; provided, that the following conditions are satisfied:

1. The person, corporation, or other legal entity that removed the landmark tree submits an application for removal of a landmark tree under this chapter within 14 days after the emergency situation is stabilized; and

2. The person, corporation, or other legal entity that removed the landmark tree provides, within 14 days after the emergency situation is stabilized, the city with documentation establishing the existence of the emergency situation, with such documentation including at least four high resolution photographs evidencing the existence of the emergency situation; and

3. The planning director subsequently approves the removal pursuant to this chapter.

B. If the conditions of subsection A of this section are not satisfied, the person, corporation, or other legal entity that removed the landmark tree without first obtaining approval from the planning director will be in violation of this chapter. (Ord. 2018-42 § 1, 2018: Ord. 2018-32 § 3, 2018: Ord. 2018-25 § 2, 2018)

16.32.050 Appeals.

A. The planning director's decision on an application for removal of a landmark tree may be appealed to the hearing examiner as described in BIMC 2.16.020.R.1.

B. All appeals must be filed within 14 days following the issuance of the planning director's decision on the application. (Ord. 2018-42 § 1, 2018: Ord. 2018-32 § 4, 2018: Ord. 2018-25 § 2, 2018)

16.32.060 Violations and penalties.

A. This chapter shall be enforced, and penalties for violations of this chapter will be imposed, pursuant to Chapter 1.26 BIMC, except that no notice of infraction may be issued under Chapter 1.26 BIMC for a violation of this chapter. In addition to notices of violation issued under BIMC 1.26.050 or 1.26.060, BIMC 1.26.070 will also govern the review and appeal of any notice of violation issued under Chapter 1.26 BIMC for a violation of this chapter.

B. In addition to the civil penalties imposed under BIMC 1.26.090, an additional civil penalty will be imposed on any person, corporation, or other legal entity that removes a landmark tree without prior approval of the planning director. This additional civil penalty will be in the amount of $25,000 for each landmark tree removed. The city attorney will take appropriate action to collect this additional civil penalty.

C. In the event of a conflict between the requirements of this chapter and any other requirement of the Bainbridge Island Municipal Code, ~~this chapter will govern and control.~~ The most restrictive regulation shall apply. (Ord. 2018-42 § 1, 2018: Ord. 2018-32 § 5, 2018: Ord. 2018-25 § 2, 2018)

Exhibit C

Chapter 18.15
DEVELOPMENT STANDARDS AND GUIDELINES

18.15.010 Landscaping, screening, and tree retention, protection and replacement.

All development shall comply with the following regulations addressing landscaping and screening unless other applicable regulations require additional or different forms of landscaping or screening, in which case the more specific standard or criteria shall govern.

A. Purpose.

1. General. The purpose of this section is to preserve the landscape character of the community, link the Island’s natural amenities with landscape greenbelts along roads, improve the aesthetic quality of the built environment, promote retention and protection of existing vegetation, reduce the impacts of development on wetlands, streams and the natural environment, enhance the value of current and future development and increase privacy for residential zones, and encourage preservation of significant and heritage trees by:

a. Retaining existing vegetation, tree stands and significant trees by incorporating them into the site design.

b. Incorporating native vegetation and drought resistant plant material into new landscape developments.

c. Providing vegetated screening between different intensities of residential uses, and between development and roads.

d. Providing visual relief of parking areas in the neighborhood centers, the Winslow Mixed Use Town Center, and the light manufacturing, (water-dependent) industrial, High School Road and urban multifamily districts.

e. Providing vegetated screening between residential and nonresidential areas.

f. Preserving, protecting, and enhancing critical areas.

g. Protecting the natural forested areas.

2. Specific Zone Districts. In addition to the regulations listed in subsection A.1 of this section:

a. For single-family residential development and redevelopment in the R-2.9, R-3.5, and R-4.3 residential districts the intent is to preserve and enhance the city's physical and aesthetic character by retaining and maintaining trees within the residential landscape.

b. For single-family residential short plats and subdivisions in residential districts, the intent is to preserve the greenbelts along designated scenic roadway corridors.

c. In the R-8 and R-14 multifamily residential districts, the intent is to screen urban multifamily projects from adjacent lower density residential properties and to soften the appearance of surface parking areas.

d. For nonresidential uses outside the Winslow Mixed Use Town Center, High School Road I and II, NC, B/I, and WD-I districts, the intent is to retain the natural landscape qualities of the island by retaining existing vegetated buffers to screen views of structures and parking areas and to buffer between areas of high and low intensity uses.

e. In the Winslow Mixed Use Town Center central core and ferry terminal overlay districts, the intent is to provide an urban character by incorporating landscape standards; and to provide landscape development to screen uses from single-family residential properties; and to soften the appearance of surface parking areas.

f. In the Winslow Mixed Use Town Center, Ericksen Avenue and Madison overlay districts, the intent is to retain the character of landscape front yards; and to provide landscape development to screen uses from single-family residential properties; and to soften the appearance of surface parking areas.

g. In the Winslow Mixed Use Town Center gateway overlay district, the intent is to retain the greenbelt located adjacent to SR 305 consistent with the greenways plan and to provide landscape development to screen uses from single-family residential properties.

h. In the High School Road I and II districts, the intent is to provide landscape development to screen uses from adjacent single-family residential properties and to soften the appearance of surface parking areas.

i. In the NC district, the intent is to incorporate landscape standards that support pedestrian scale neighborhood uses compatible with the intensity of the surrounding residential neighborhood; to minimize the impact of lighting, noise and views of surface parking areas; and to provide a buffer between higher and lower intensity uses.

j. In the B/I district, the intent is to provide a year-round vegetated screen and a noise and site lighting buffer of industrial development from adjacent nonindustrial properties and roadways.

k. In the WD-I district, the intent is to provide landscape development that screens parking lots and large structures, but allows visual access to the shoreline and small scale active industrial facilities.

B. Applicability.

1. All new development, except single-family residential building permits in the R-0.4, R-1, and R-2 zones, shall be subject to the requirements of this section, except as modified by subsections B.2 and B.3 of this section.

2. Projects subject to the conditional use permit process may be required to exceed the requirements of this chapter.

3. Specific submittal requirements for landscaping plans (tree protection, retention and planting plans) are included in the city's administrative manual.

4. Specific landscape requirements applicable to development in each zone district are indicated with an "X" and summarized in the following Table 18.15.010-1.

Table 18.15.010-1: Landscape Requirements by Zone District

Landscape Requirements for Land Uses and Districts		General Regulations	Perimeter Landscape	Roadside Buffer	Parking Lot Landscaping	Total Site Tree Unit Requirements BIMC 18.15.010.G	Planting Requirements	Irrigation	Maintenance
Single-Family Residential Properties in R-2.9, R-3.5, and R-4.3 Zones		X				X	X	X	X
R-8 and R-14 Multifamily Districts		X	X	X	X	X	X	X	X
Nonresidential Uses in Residential Districts		X	X	X	X	X	X	X	X
Winslow Mixed Use Town Center [1]	Central Core Overlay	X	X	X [2]	X	X	X	X	X
Winslow Mixed Use Town Center [1]	Ericksen Ave. Overlay	X	X	X [2]	X	X	X	X	X
Winslow Mixed Use Town Center [1]	Madison Ave. Overlay	X	X	X [2]	X	X	X	X	X
Winslow Mixed Use Town Center [1]	Gateway Overlay	X	X	X [2]	X	X	X	X	X

Table 18.15.010-1: Landscape Requirements by Zone District

Landscape Requirements for Land Uses and Districts		General Regulations	Perimeter Landscape	Roadside Buffer	Parking Lot Landscaping	Total Site Tree Unit Requirements BIMC 18.15.010.G	Planting Requirements	Irrigation	Maintenance
	Ferry Terminal Overlay	X	X	X [2]	X	X	X	X	X
High School Road District		X	X	X [2]	X	X	X	X	X
NC District		X	X		X	X	X	X	X
B/I District		X	X	X	X		X	X	X
WD-I District		X	X	X	X		X	X	X

[1] Refer to Chapter 18.18 BIMC for additional landscape requirements specific to the Mixed Use Town Center districts.

[2] Roadside buffer requirement is adjacent to Highway 305 only.

C. General Regulations. Where Table 18.15.010-1 indicates that development must comply with the requirements of this subsection C, all development shall comply with the following requirements. These requirements are intended to supplement any regulations in Chapters 16.12 (Shoreline Master Program) and 16.20 (Critical Areas) BIMC, which remain the primary source of regulation for environmentally sensitive areas in Bainbridge Island. In the event of any inconsistency between the requirements of this subsection C and the requirements of Chapters 16.12 and 16.20 BIMC, the requirements of Chapters 16.12 and 16.20 BIMC shall apply.

1. Retention.

a. Intent. The intent of these regulations is to preserve the forested character of the Island by preserving existing vegetation, trees and tree stands, and incentivizing tree protection and replacement in certain districts through a tree unit system, thereby mitigating the development impacts of increased stormwater runoff, impervious surface, and loss of carbon dioxide absorption capacity. This shall be accomplished in a manner consistent with the comprehensive plan and the requirements of Washington law and to discourage the removal of significant tree(s) and tree stands.

b. Perimeter Tree Retention Requirements. Trees and tree stands located in the perimeter areas required to be landscaped pursuant to subsections D and E of this section shall be retained and protected as described in subsection C.4 of this section, unless an applicant can demonstrate during the land use permit review process that the existing trees and vegetation will be compromised after the development is complete, and would likely become hazardous as described in subsection C.1.c of this section. If the applicant can demonstrate that hazard, then new trees and vegetation may be planted pursuant to the planting standards of subsection D.4 of this section. Perimeter landscape widths may be averaged to save significant trees, but shall not be reduced to less than the allowed minimum perimeter dimension.

c. Exceptions. Significant trees and tree stands may be removed if it is determined by a consulting arborist who is certified by the American Society of Consulting Arborists with TRAQ, or a ~~TRACE~~ TRAQ ISA Arborist ~~certified professional as established by the PNW Chapter of the International Society of Arboriculture~~, and whose services are paid for by the applicant, that the vegetation is:

i. ~~A safety hazard due to potential root, trunk, or primary limb failure, or due to exposure of mature trees that have grown in a closed, forested situation~~ Between moderate to extreme risk as determined using BIMC tables 16.18.050-1 and 16.18.050-2.; or

ii. ~~Damaged, d~~Diseased or standing dead trees that cannot be safely retained as wildlife snags.

d. Protection of Tree Stands. Notwithstanding a determination under subsection C.1.c of this section, if trees have been removed from a closed, forested location, a buffer of smaller trees shall be retained or planted on the fringe of the closed, forested area. The buffer of smaller trees shall be adequate to protect the health of the remaining mature trees in the closed, forested area, as determined by a consulting arborist who is certified by the American Society of Consulting Arborists, and whose services are paid for by the applicant.

2. Replacement.

a. Intent. The intent of these regulations is to ~~discourage~~ prevent the unauthorized removal of significant tree(s) and tree stands; and to establish a replacement or fine if such activity occurs. All replanting plans must be prepared or approved by a landscape architect licensed by the state of Washington, a Washington certified nursery professional or a Washington certified landscaper, a consulting arborist who is certified by the American Society of Consulting Arborists, or ~~a TRACE certified professional as established by the PNW Chapter of the International Society of Arboriculture~~ an ISA certified Arborist.

b. Requirements for Mitigation of Unauthorized Removal. If trees required to be retained pursuant to subsection C.1 of this section are not retained or if protection measures described in subsection C.4 of this section are not fully implemented, they shall be replaced by at least one-and-one-half times (150 percent) of the number of tree units removed. The trees removed shall be replaced with trees of the same type, evergreen or deciduous. Native shrubs and ground cover shall also be replaced when replacing tree stands due to unauthorized removal. Shrubs shall be one-gallon size planted four feet on center spacing; ground cover shall be one-gallon size planted three feet on center spacing. The shrubs and ground cover shall be planted within the limits of the previous tree stand canopy.

c. Requirements for Permitted Removal. A property owner may request removal of trees required to be retained pursuant to this chapter by applying for a clearing permit (Chapter 16.18 BIMC). Trees will be approved for removal only if they meet the hazard tree requirements of subsection C.1.c of this section. The clearing permit application shall include a replanting plan. In designing the replanting plan, the landscape or tree professional must consider what landscape function the tree(s) to be removed are serving on the property (e.g., parking lot, street tree, perimeter screening), and what species and location(s) for replanting strives to replace that function. New planting areas may need to be created to achieve this goal.

3. Enforcement and Penalties. Failure to retain, replace or transplant trees will be enforced as follows; provided, that any fine shall be no less than three times the value of the trees, as determined by the current standards ~~of the International Society of Arboriculture~~ found in BIMC 18.15.010.G.3.a.iii. If unauthorized tree(s) or vegetation removal occurs within the public right-of-way, all permits in force on the subject property shall be suspended and no new permits issued until the tree(s) or vegetation has been replaced or all penalties have been satisfied. The director is authorized to make site inspections and take such actions as are necessary to enforce this title in accordance with Chapters 1.16, 1.24, and 1.26 BIMC. The director may require an evaluation by a tree professional, a qualified engineer, landscape architect, soils engineer, testing lab, or other specialist at any time during the tree plan review process or tree removal inspection as necessary to ensure compliance with the provisions of this chapter and/or the terms of the clearing permit. Applicant shall be responsible for any associated costs.

a. Notice of Infraction. It is unlawful for any person to:

i. Initiate or maintain, or cause to be initiated or maintained, the use, construction, placement, removal, alteration, or demolition of any structure, land, vegetation or property within the city contrary to the provisions of this chapter.

ii. Misrepresent any material fact in any application, plans or other information submitted to obtain permits or authorizations under this title or not following the conditions of an approval.

iii. Remove or deface any sign, notice, complaint, or order required by or posted in accordance with this chapter.

iv. Fail to submit or implement a planting plan as required by this section.

b. Stop Work Orders. The city shall have the authority to issue a stop work order to cease all development work, and order restoration, rehabilitation, or replacement measures, including applicable sureties, at the owner's or other responsible party's expense to compensate for the use, construction, placement, removal, alteration, or demolition of any structure, land, vegetation or property within the city contrary to the provisions of this chapter.

c. Additional Remedies. In addition to any other remedy provided by this chapter or under the BIMC, the city may initiate injunction or abatement proceedings or any other appropriate action in courts against any person who violates or fails to comply with any provision of this chapter to prevent, enjoin, abate, and/or terminate violations of this title and/or to restore a condition which existed prior to the violation. In any such proceeding, the person violating and/or failing to comply with any provisions of this chapter shall be liable for the costs and reasonable attorneys' fees incurred by the city in bringing, maintaining and/or prosecuting such action.

d. Notice of Infraction. Except as provided in subsection C.3.f of this section, conduct made unlawful by the city under this chapter shall constitute a civil infraction and is subject to enforcement and fines as provided in BIMC 1.26.035, and additionally, is subject to fines as provided in Table 18.15.010-2. A civil infraction under this section shall be processed in the manner set forth in Chapter 1.26 BIMC.

e. Civil Penalty.

i. In addition to any civil infraction fine, criminal penalty, and/or other available sanction or remedial procedure, any person engaging in conduct made unlawful by this chapter shall be subject to a cumulative civil penalty in the amount of $1,000 per day for each violation from the date set for compliance until the date of compliance. Any such civil penalty shall be collected in accordance with BIMC 1.26.090.

ii. A person who fails to comply with the requirements of this chapter or the terms of a permit issued hereunder, who undertakes an activity regulated by this chapter without obtaining a permit, or fails to comply with a cease and desist or stop work order issued under this chapter shall be subject to a civil penalty as set forth in Table 18.15.010-2. Each unlawfully removed or damaged tree shall constitute a separate violation.

iii. Any person who aids or abets in the violation shall be considered to have committed a violation for purposes of the civil penalty.

iv. In addition to the penalties addressed under subsection C.3.e.ii of this section, failure to retain, replace or transplant trees will be enforced as provided in this code; provided, that any financial penalty assessed will be the greater of the amount indicated in Table 18.15.010-2 or three times the value of the trees, as determined by the current standards ~~of the International Society of Arboriculture~~ found in BIMC 18.15.010.G.3.a.iii, whichever is greater. The director may elect not to seek penalties if he or she determines that the circumstances do not warrant imposition of civil penalties in addition to restoration.

Exception to director's discretion statement above: Any tree identified on a development project's required landscaping plan as retained and given a monetary value per subsection G.3.a.iii of this section that is removed, or dies during the surety period due to improper protection during construction, shall be subject to an automatic fine of three times the tree's stated value. All of the project's active permits shall also be suspended until the fine is paid and all restoration work completed.

Table 18.15.010-2: Penalties

Types of Violations	Allowable Fines per Violation
1. Removal of tree(s) approved to be removed, but prior to final tree retention and planting plan approval or issuance of a city tree removal permit	$100.00 per tree
2. Removal or damage of tree(s) that are or would be shown to be retained on an approved tree retention and planting plan or any other violation of approved tree protection plan	$1,000 per tree
3. Removal of tree(s) without applying for or obtaining a required city land use permit	$1,000 per tree
4. Removal of tree(s) without applying for or obtaining a required city clearing permit	$1,000 per tree

Table 18.15.010-2: Penalties

Types of Violations	Allowable Fines per Violation
The financial penalty will be the amount indicated in this table or three times the value of the trees, as determined by the current standards ~~of the International Society of Arboriculture~~ found in BIMC 18.15.010.G.3.a.iii, whichever is greater, pursuant to subsection C.3.e.iv of this section.	

f. Repeat Offenders. Any person who again violates this chapter within 12 months after having been found by the Bainbridge Island municipal court to be in violation of this chapter commits a misdemeanor and any person who is convicted of that misdemeanor shall be punished as provided in BIMC 1.24.010.A.

4. Protection During Construction and Development.

a. Intent. The intent of these regulations is to provide the best protection for existing vegetation, trees and tree stands, including protection for trees on adjacent properties, protection of LID BMPs during construction and development activities, and preservation of the ecological function of the landscaping area by protecting existing soil.

b. Requirements.

i. No cutting of trees shall be allowed on a site until the tree retention and planting plans have been approved by the director and a clearing, grading or building permit issued.

ii. In order to preserve future ecological function, the applicant shall identify areas of prohibited disturbance, generally corresponding to the dripline or critical root zone (as identified by a consulting arborist) of the existing vegetation, trees and/or tree canopy of tree stands to be retained, buffers, areas of existing vegetation to be maintained, future LID BMPs, and future planting areas larger than 400 square feet (i.e., landscape islands in parking lots). The prohibited disturbance areas shall be reviewed and approved by the director as part of the land use permit review process.

iii. A temporary five-foot-high chain link fence with tubular steel poles or "T" posts shall delineate the area of prohibited disturbance defined in subsection C.4.b.ii of this section, unless the director has approved the use of a four-foot-high plastic net fence as an alternative. The fence shall be erected and inspected by city staff before clearing, grading and/or construction permits are issued and shall remain in place until construction has been completed, and shall at all times have affixed to it a sign indicating the protected area.

iv. No impervious surfaces, fill, excavation, vehicle operations, compaction, removal of native soil or storage of construction materials shall be permitted within the area defined by the required construction fencing. If avoiding construction and compaction in future planting areas is unavoidable, the landscape plan for the project shall include methods for aerating and/or augmenting compacted soil to prepare for new planting, pursuant to subsection H.2 of this section.

v. A rock well shall be constructed if the grade level around the tree is to be raised more than one foot. The inside diameter of the well shall be equal to the diameter of the dripline or critical root zone (as identified by a consulting arborist) of the tree or tree canopy of tree stands.

vi. The grade level shall not be lowered within the larger of (A) the dripline or critical root zone (as identified by a consulting arborist) of the tree, or the tree canopy of tree stands, or (B) the area recommended by a consulting arborist.

vii. Alternative protection methods may be used if recommended by a consulting arborist and determined by the director to provide equal or greater tree protection.

viii. Wherever this subsection C.4 allows or requires the involvement of a consulting arborist, that individual shall be ~~selected from the city's list of current arborists~~ certified by the American Society of Consulting Arborists or the International Society of Arboriculture (ISA), and have a valid TRAQ credential, and ~~his or her~~ their services shall be paid for by the applicant.

ix. Protect LID BMPs during construction and development activities in accordance with Chapter 15.20 BIMC.

x. To ensure the best outcomes for significant trees that are retained, any situation not directly addressed above shall follow standards set forth in Section 2 of the Community Forest Best Management Practices Manual.

5. Modification of Requirements. If the significant tree and tree stand retention requirements of this section create an unnecessary hardship, the applicant may request a modification. The director may administratively approve a modification of the significant tree and tree stand requirements of this section if the director finds that the following standards have been met:

a. The modification is necessary because of special circumstances relating to the location of existing significant trees and tree stands that prevent compliance with this section; and

b. The special circumstances of the subject property make the strict enforcement of the provisions of this section an unnecessary hardship to the property owner; and

c. The special circumstances of the subject property are not the result of the actions of the applicant; and

d. The approving of the modification will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity and land use district in which the subject property is located; and

e. The modification is consistent with the purpose and intent of this chapter; and

f. The site design incorporates the retention of other natural vegetation in consolidated locations that promotes the natural vegetated character of the site.

D. Perimeter Buffering and Screening.

1. Intent. The intent of this subsection D is to provide an effective vegetated screen over time between uses or land use districts, to screen parking areas and structures located adjacent to public rights-of-way, and to allow visual and physical access to pedestrian and other nonmotorized oriented uses, such as a multipurpose trail or bikeway if those trails could be accommodated without compromising significant vegetation or hazardous slopes. Additional buffers may be required per BIMC 16.20.170, The Winslow Ravine – Special rules in Mixed Use Town Center.

2. Requirements by District. In addition to meeting the general requirements of subsection D.4 of this section, applicants shall meet the specific requirements of Table 18.15.010-3 applicable to the zone district or overlay district in which the property is located. In the case of a conflict between the requirements of this subsection D.2 and the requirements of subsection D.4 of this section, the requirements of this subsection D.2 shall apply. The tree retention, replacement, and protection standards of subsection C of this section apply to perimeter buffers. These perimeter landscape requirements are in addition to required roadside landscaping in subsection E of this section and parking lot landscape requirements in subsection F of this section. These requirements do not apply to projects involving only interior renovations of existing buildings.

Table 18.15.010-3: Perimeter Landscaping Requirements by Land Use and Zoning District

Abutting Zoning or Land Use District	Perimeter Landscape Type	Perimeter Width (ft.)	Minimum Perimeter Width (ft.)
Multifamily in R-2, R-1 and R-0.4 Districts			
Single-family residential	Full Screen	25	25
R-8 and R-14 Multifamily Districts			
R-4.3 (urban residential)	Partial Screen	20	15
Nonresidential Uses in Areas Outside Winslow Mixed Use, HSR, NC, B/I, WD-I Districts			
Residential including multifamily	Full Screen	25	25
Nonindustrial uses	Partial Screen	20	10
Winslow Town Center Mixed Use District [1]			
~~Non-B/I~~ Single-family residential	~~[2]~~Full Screen	~~50~~ 20	~~35~~ 15
HSR I and II Districts			
Single-family residential	Full Screen	20	15
NC Districts			
Residential including multifamily	Full Screen	20	15
B/I Districts			
Non-B/I	Full Screen [2]	50	35
WD-I Districts			
Residential including multifamily	Full Screen	40	30
Nonindustrial uses	Full Screen	25	15

[1] For perimeter landscaping requirements in the ferry terminal district transition area, north of Winslow Way, reference BIMC 18.12.030.C.

Table 18.15.010-3: Perimeter Landscaping Requirements by Land Use and Zoning District

Abutting Zoning or Land Use District	Perimeter Landscape Type	Perimeter Width (ft.)	Minimum Perimeter Width (ft.)
~~[2] This perimeter buffer applies even when a private access road separates a B/I property from non-B/I property.~~			

3. Perimeter buffers for residential and commercial subdivisions are required pursuant to BIMC 17.12.070.O. The buffers shall be pursuant to the standards set forth in subsection D.4 of this section. The tree retention, replacement, and protection standards of subsection C of this section apply to perimeter buffers for residential and commercial subdivisions.

4. General Requirements.

a. Full Screen. The intent of this buffer is to provide an effective vegetated screen over time between uses, land use districts, or to screen parking areas and structures from the public rights-of-way. Where full screen perimeter landscaping is required, the applicant must provide:

i. Minimum 70 percent evergreen trees ranging in height from four feet to six feet at the time of planting with at least 50 percent being six feet high; and

ii. Deciduous trees with a caliper of at least two inches at the time of planting; and

iii. At least 50 percent of the trees shall be native species or drought resistant; and

iv. The number of trees is determined by calculating the area of the perimeter buffer and dividing by 250 square feet, or one tree for every 10 feet of buffer length, whichever is greater; and

v. Minimum 70 percent evergreen shrubs at least 21 inches in height at the time of planting, to achieve minimum six feet height at maturity; and

vi. The number of shrubs is determined by calculating the area of the perimeter buffer and dividing by 50 square feet or one shrub for every 20 feet of buffer length, whichever is greater; and

vii. Living ground cover shall be planted and spaced to achieve total coverage within five years; and

viii. Trees and shrubs shall be spaced to result in a full screen over time.

b. Partial Screen. Where partial screen perimeter landscaping is required, the applicant must provide:

i. Minimum 50 percent evergreen trees ranging in height from four feet to six feet at the time of planting with at least 50 percent being six feet high; and

ii. Deciduous trees with a caliper of at least two inches at the time of planting; and

iii. At least 50 percent of the trees shall be native species or drought resistant; and

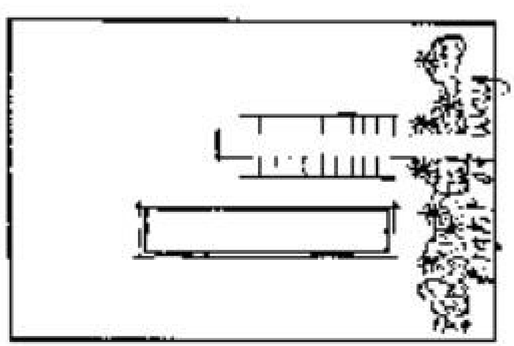
iv. The number of trees is determined by calculating the area of the perimeter buffer and dividing by 400 square feet or one tree for every 20 feet of buffer length, whichever is greater; and

v. At least 50 percent evergreen shrubs at least 21 inches in height at the time of planting, to achieve minimum six feet height at maturity; and

vi. The number of shrubs is determined by calculating the area of the perimeter buffer and dividing by 100 square feet or one shrub for every five feet of buffer length, whichever is greater; and

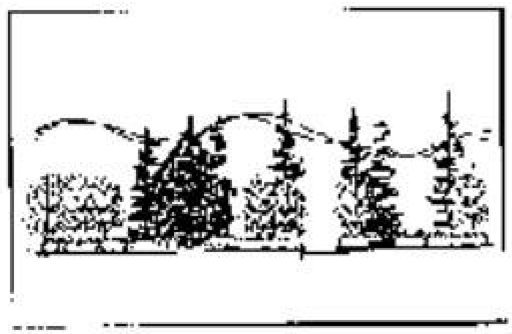
vii. Living ground cover shall be planted and spaced to achieve total coverage within five years; and

viii. Plants should be clustered within the landscape perimeter to screen structures and parking



Partial Screen Plan

areas.



Partial Screen Section

c. Edge Planting Standard. Where edge planting standard perimeter landscaping is required, the applicant must provide:

i. One hundred percent deciduous trees two-inch caliper spaced no more than 30 feet on center; and

ii. Evergreen shrubs minimum 21 inches in height at the time of planting spaced no more than three feet on center to provide a continuous hedge achieving a maximum height of six feet at maturity; and

iii. Living ground cover shall be planted and spaced to achieve total coverage within five years.

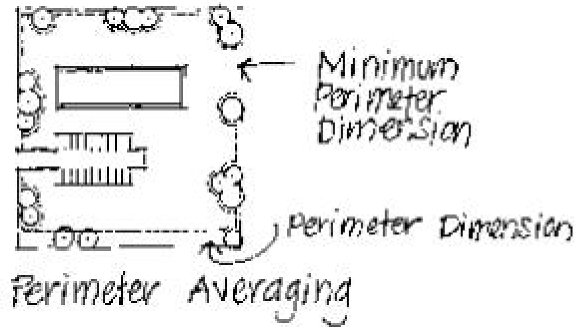
5. Standards. The following standards apply to the full screen, landscape buffer and edge planting area perimeter landscape requirements contained in this section.

a. Existing vegetation may be used in lieu of new plant material. Although existing vegetation may meet the minimum number of trees or shrubs for a required full screen, the director may require additional trees and/or shrubs to achieve an effective full screen.

b. A full screen will be required to screen utilities located above ground from adjacent uses.

c. Perimeter landscaping shall be clustered in areas to screen structures, utility structures, loading areas, parking lots, trash enclosures, storage areas and mechanical equipment.

d. The director may approve the averaging of perimeter landscape widths to provide adequate screening if it meets the criteria contained in this section.



e. Earth berms in combination with shrubs and trees may be used to achieve the initial planting height requirement.

f. Minimum landscape perimeter dimensions are allowed when perimeter averaging is applied. The landscape perimeter can be averaged only if the total required perimeter dimension square footage is achieved. The director may allow landscape perimeter averaging if the following criteria are met: (i) plant material is being clustered to more effectively screen parking areas and structures; (ii) the quality of the perimeter landscape is not diminished; and (iii) significant trees are being retained.

6. Park Buffers and Buffers for Dedicated Conservation Lands.

a. Notwithstanding the provisions of subsections D.2, D.3, and D.4 of this section, a 25-foot-wide buffer shall be provided along a property line where the land immediately adjacent to the subdivision boundary is a park or a future park in a municipal plan, or dedicated conservation land area that has been set aside for open space, wildlife habitat or public conservation purposes by deed or conservation easement.

b. In order to buffer the visual impact of the proposed subdivision and protect off-site views, edge planting standard landscaping, pursuant to subsection D.4 of this section, shall be required within park buffers and buffers for dedicated conservation lands buffers where mature trees and shrubs cannot provide such screening.

E. Street Frontage Landscaping.

1. Roadside Buffers for Commercial, Institutional and Multifamily Development. The following table indicates the type of landscaping required when the subject property directly abuts a right-of-way. Roadside buffers may be required for commercial, institutional, or multifamily development where a site plan review or conditional use permit is required. The buffers shall be pursuant to the screening standards set forth in

subsection D.4 of this section. Required landscape buffer widths may be reduced to the minimum widths stated in Table 18.15.010-4 through buffer averaging in accordance with the criteria in subsection D.5 of this section. The tree retention, replacement, and protection standards of subsection C of this section apply to roadside buffers. These requirements do not apply to projects involving only interior renovations of existing buildings.

a. A buffer is required along Highway 305, which is designated as a scenic highway. The 50-foot roadside buffer requirement can be reduced by the director, after consultation with an acceptable tree professional as identified in subsection C.1.c of this section, if it is determined that (i) a 50-foot buffer would cause the property to be undevelopable, and (ii) the reduced buffer will provide as much screening of site activities from Highway 305 as practicable in light of site topography and conditions.

2. Roadside buffers for residential and commercial subdivisions are required pursuant to BIMC 17.12.070.P. The buffers shall be pursuant to the standards set forth in subsection D.4 of this section. The tree retention, replacement, and protection standards of subsection C of this section apply to roadside buffers for residential and commercial subdivisions. These requirements do not apply to projects involving only interior renovations of existing buildings.

Table 18.15.010-4: Roadside Buffer Requirements by District and Land Use [1]

Existing Zoning/Use	Adjacent Right-of-Way Type	
	Right-of-Way (not including Highway 305)	Highway 305
Mixed Use Town Center [2]	N/A	50' Full Screen [3]/35' Minimum
High School Road	N/A	50' Full Screen/35' Minimum
Multifamily Development	20' Partial Screen	50' Full Screen/35' Minimum
Nonresidential Uses within Residential Zone Districts	25' Partial Screen/15' Minimum	50' Full Screen/35' Minimum
Business/Industrial (B/I)	50' Full Screen/35' Minimum	50' Full Screen/35' Minimum
Water-Dependent Industrial	25' Full Screen/15' Minimum	N/A
Commercial and Multifamily Subdivisions [4]	N/A	50' Full Screen

Table 18.15.010-4: Roadside Buffer Requirements by District and Land Use [1]

Existing Zoning/Use	Adjacent Right-of-Way Type	
	Right-of-Way (not including Highway 305)	Highway 305

[1] All roadside buffers must be planted if not already existing.

[2] For perimeter landscaping requirements in the ferry terminal district transition area, north of Winslow Way, reference BIMC 18.12.030.C.

[3] Beginning 100' north of Winslow Way.

[4] Properties being subdivided with less than one acre are not subject to roadside buffer requirements.

F. Parking Lot Landscaping. The requirements of this subsection F are in addition to required perimeter landscaping under subsection D of this section. When more than one building is placed on a lot or a building is placed in the center of the lot with parking all the way around it, the street perspective is used to determine which landscaping standards to follow for parking lot landscaping.

1. NC, B/I, and WD-I Districts and Nonresidential Uses Outside Winslow Mixed Use Town Center Overlay Districts and High School Road Mixed Use Districts. All applicants in these areas shall provide the following types and amounts of landscaping. Parking lots shall meet the requirements of BIMC 18.15.020. Applicants may refer to the standards contained in this section for optional planting locations within parking areas.

a. Intent. The intent of this section is to screen views of parking lots. To provide shade and visual relief within parking lots, to limit impacts of impervious surfaces and to reinforce safe pedestrian access to buildings.

b. Requirements for Parking Lots Located Adjacent to Public Rights-of-Way.

i. One tree for every four parking stalls; and

ii. Minimum 30 percent evergreen trees; and

iii. Deciduous trees minimum two-inch caliper, evergreen trees minimum six feet high at the time of planting; and

iv. Evergreen shrubs minimum 18-inch height at the time of planting spaced no more than three feet on center, to provide a continuous hedge achieving a maximum height of three feet at maturity located adjacent to the rights-of-way (this may be achieved with the perimeter landscape); and

v. Evergreen ground cover planted and spaced to achieve total coverage within two years; and

vi. A landscaped area at the end of parking aisles.

Parking Adjacent to Right-of-Way

Safe Pedestrian Access

c. Requirements for Parking Lots Not Abutting Public Rights-of-Way.

i. One tree for every eight parking stalls; and

ii. One hundred percent of the trees may be deciduous; and

iii. Deciduous trees minimum two-inch caliper, evergreen trees minimum four feet height at the time of planting; and

iv. Evergreen ground cover and/or shrubs planted and spaced to achieve total coverage within two years; and

v. A landscaped area at the end of parking aisles.

Parking Area Screen

d. Standards.

i. Maintain shrubs at a maximum three feet height within parking lots so views between vehicles and pedestrians will not be blocked.

ii. Landscape in planting islands or strips shall have an area of at least 100 square feet and with a narrow dimension of not less than five feet if wheel stops are provided to prevent vehicle overhang. A narrow dimension of not less than eight feet may be provided if the vehicle overhang area is included in the planting area.

iii. Provide permanent curbs or wheel stops to protect the plantings.

iv. Significant trees and tree stands may be used in lieu of new landscape requirements if they are in addition to the significant tree and tree stand retention requirements.

v. Clustering of new plant material within parking lots may be approved or required by the director if the intent of this section is met.

vi. Refer to the landscape materials matrix in the administrative manual for tree species appropriate for parking lots.

2. Winslow Mixed Use Town Center Overlay Districts, High School Road Districts, R-8 and R-14 Districts. All applicants in these areas shall provide the following types and amounts of landscaping. Parking lots shall meet the requirements of BIMC 18.15.020. Applicants may refer to the standards contained in this section for optional planting locations within parking areas.

a. Intent. The intent of this section is to soften the appearance of surface parking lots. To provide more intensive landscaping when surface parking lots are exposed to public view.

b. Parking Lots Located in the Front of Buildings and Adjacent to Public Rights-of-Way.

i. One tree for every two parking stalls; and

ii. One hundred percent of the trees may be deciduous; and

iii. Deciduous trees minimum two-inch caliper; and

iv. Evergreen shrubs planted to form a hedge, minimum 18-inch height at the time of planting, spaced no more than three feet on center, not to exceed a mature height of three feet located adjacent to the public rights-of-way (this may be achieved with the perimeter landscape); and

v. Deciduous trees minimum two-inch caliper spaced no more than 30 feet on center located along the public rights-of-way (this may be achieved with the perimeter landscape); and

vi. Evergreen ground cover and/or shrubs planted and spaced to achieve total coverage within two years; and

vii. A landscaped area at the end of parking aisles.

c. Requirements for Parking Lots Located to the Side of Buildings and Adjacent to Public Rights-of-Way.

i. One tree for every four parking stalls; and

ii. One hundred percent of the trees may be deciduous; and

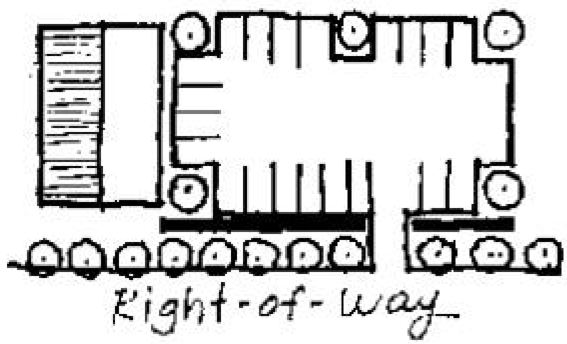
iii. Deciduous trees minimum two-inch caliper; and

iv. Evergreen shrubs planted to form a hedge, minimum 18-inch height at the time of planting, spaced no more three feet on center, not to exceed a mature height of three feet located adjacent to the public rights-of-way (this may be achieved with the perimeter landscape); and

v. A landscaped area at the end of aisles; and

vi. Deciduous trees minimum two-inch caliper spaced no more than 30 feet on center located along the public rights-of-way (this may be achieved with the perimeter landscape); and

vii. Evergreen ground cover and/or shrubs planted and spaced to achieve total coverage within two years.



d. Requirements for Parking Lots Located Behind Buildings and Not Adjacent to Public Rights-of-Way.

i. One tree for every eight parking stalls; and

ii. One hundred percent of the trees may be deciduous; and

iii. Deciduous trees minimum two-inch caliper, evergreen trees minimum four feet height at the time of planting; and

iv. Evergreen ground cover and/or shrubs planted and spaced to achieve total coverage within two years; and

v. A landscaped area at the end of aisles.

e. Standards.

i. Maintain shrubs at a maximum three feet height within parking lots so views between vehicles and pedestrians will not be blocked.

ii. Landscape in planting islands or strips shall have an area of at least 100 square feet and with a narrow dimension of not less than five feet if wheel stops are provided to prevent vehicle overhang. A narrow dimension of not less than eight feet may be provided if the vehicle overhang area is included in the planting area.

iii. Provide permanent curbs or wheel stops to protect the plantings from vehicle overhang.

iv. Significant trees and tree stands may be used in lieu of new landscape requirements if they are in addition to the significant tree and tree stand retention requirements.

v. Clustering of new plant material within parking lots may be approved or required by the director if the intent of this section is met.

vi. Refer to the suggested landscape materials matrix in the administrative manual for tree species appropriate for parking lots.

G. Total Site Tree Unit Requirements.

1. Intent. The overall purpose of this section is to preserve the landscape character of the community through development standards by encouraging the retention of existing vegetation and significant trees by incorporating them into site design. The intent of this subsection G is to ensure that, to the degree practicable, (a) each development approval in the MUTC, HSR I and II, R-5, R-8, R-14, and NC zone districts, (b) each development approval for nonresidential development in the R-4.3, R-3.5, R-2.9, R-2, R-1, and R-0.4 zone districts, and (c) new and existing single-family residential development in the R-2.9, R-3.5, and R-4.3 zone districts leaves the development parcel with at least a specified minimum amount of tree coverage, measured in tree units per acre, that reflects the degree of tree coverage prior to development or redevelopment and that discourages avoidable site disturbances that would require tree removal.

2. Applicability. The regulations of this subsection G apply to development applications involving (a) any modification to a parcel located in the MUTC, HSR I and II, R-5, R-8, R-14, or NC districts, (b) a permitted nonresidential development in the R-4.3, R-3.5, R-2.9, R-2, R-1, and R-0.4 zone districts, and (c) new and existing single-family residential development in the R-2.9, R-3.5, and R-4.3 zones. If ~~a substantial~~ any portion of a significant tree trunk~~, dripline and/or critical root zone~~ extends ~~onto~~ across an adjacent property line, ~~both properties may use the tree units~~ each property may use half the tree units of that tree to meet the requirements of subsection G.4 of this section, ~~upon mutual agreement~~. These provisions shall not apply to projects involving only interior renovation of existing buildings.

3. Site Specific Evaluation of Total Impact on Tree Coverage.

a. In order to show how the tree unit requirements of subsection G.4 of this section are being met, the applicant shall submit the following information as part of the landscaping plan information for a land use permit application:

i. Identify and survey all existing trees to be retained as part of the proposed development. New and existing single-family residential development in the R-2.9, R-3.5, and R-4.3 zone districts are required to only identify, not survey, trees to be retained;

ii. If opting to meet tree unit requirements pursuant to subsection G.4.a.iv of this section, the applicant shall identify the species and DBH of each tree to be removed;

iii. The applicant shall also submit valuation of all trees to be retained, using ~~the valuation standards of the International Society of Arboriculture (see administrative manual for submittal requirements for landscaping plans)~~ Table 18.15.010-5 provided below. This provision does not apply to new and existing single-family residential development in the R-2.9, R-3.5, and R-4.3 zone districts.

Table 18.15.010-5: City of Bainbridge Island Tree Valuations Table

DBH Range (inches)	Restoration Value
3 - 11.9	$500
12 -23.9	$1,500
24-35.9	$5,000
36+	$10,000

iv. The applicant may choose to hire a qualified professional to complete a tree appraisal in lieu of using the City table. That appraisal must follow Council of Tree and Landscape Appraisers (CTLA) Tree Appraisal Guidelines set out in the most current manual released by the CTLA.

b. In determining which trees will be retained on a property to meet the tree unit requirements of subsection G.4 of this section, an applicant shall attempt to retain trees greater than 15 inches, trees in tree stands, and trees adjacent to tree stands on adjacent properties, unless such retention would prevent reasonable use of a property and no other alternative is feasible.

c. A tree removal/vegetation maintenance permit pursuant to Chapter 16.18 BIMC is required to request removal of any tree that is contributing to a property meeting the tree unit retention requirements of subsection G.4 of this section. Replanting may be required to ensure that the property continues to meet the retention requirements.

4. Requirements.

a. A development application covered by subsection G.2 of this section shall only be approved if it complies with the requirements of subsections C (General Regulations), D (Perimeter Buffering and Screening), E (Street Frontage Landscaping), and F (Parking Lot Landscaping) of this section, and also complies with subsection G.4.a.i, ii or iii of this section.

i. In the MUTC central core and ferry terminal overlay districts, the development parcel shall have at least 30 tree units per acre following the proposed development or redevelopment.

ii. In the MUTC Ericksen Avenue, Madison Avenue, and gateway overlay districts, and each site in the R-5, R-8, R-14, HSR I and II, and NC districts, and for permitted nonresidential development in the R-4.3, R-3.5, R-2.9, R-2, R-1, and R-0.4 zone districts, the development parcel shall have at least 40 tree units per acre following the proposed development or redevelopment.

iii. In the R-4.3, R-3.5, and R-2.9 zone districts, existing single-family residential development, developing single-family residences, and vacant parcels shall have at least 30 tree units per acre following the proposed development, redevelopment, and as part of ongoing property maintenance for existing single-family development.

iv. As an alternative to subsections G.4.a.i, ii, and iii of this section, and at the applicant's option, the development parcel will contain at least the same number of tree units after the proposed development or redevelopment as it had before that development or redevelopment.

b. Existing and new trees in roadside, perimeter, and shoreline buffers and/or critical areas and their buffers do not count towards the tree unit requirements of this section. If an applicant is choosing to meet their tree unit requirements using subsection G.4.a.iv of this section, the existing trees in those protected areas and buffers will not count towards the "pre-development" amount of tree units.

5. Calculation of Tree Units.

a. Each tree preserved on a development parcel shall earn the number of tree units shown in Table 18.15.010-~~5~~6, based on its diameter at breast height (DBH) as measured in inches. If the DBH measurement results in a fraction, the requirement shall be rounded to the nearest whole number (greater than or equal to 0.5 is rounded up; less than 0.5 is rounded down).

Table 18.15.010-~~5~~6: Tree Unit Conversion Table for Preserved Trees [1]

DBH	Tree Units	DBH	Tree Units	DBH	Tree Units
3 – 5	1.0	24 – 26	6.2	39 – 40	10.8
6 – 10	1.2	27 – 28	7.0	41 – 42	11.4
11 – 12	1.4	29 – 30	7.8	43 – 44	12.0
13 – 15	2.0	30 – 31	8.4	45 – 46	12.6
16 – 18	3.2	32 – 33	9.0	47 – 48	13.2
19 – 20	3.8	34 – 36	9.6	49+	13.8
21 – 23	4.6	37 – 38	10.2		

[1] For multi-stemmed trees, measure the DBH of each trunk separately, multiply each of these measurements by itself, add up these amounts, and calculate the square root of that total to find the DBH for the tree as a whole.

b. Each new or replacement tree planted shall earn one tree unit. New trees planted to meet the minimum parking lot landscaping requirements of subsection F of this section do not count towards meeting tree unit credits under this section. New trees planted in or around a parking lot that exceed the minimum requirements of subsection F of this section can be counted towards meeting required tree units.

c. If, after complying with subsections C, D, E, and F of this section, additional trees need to be planted to meet the minimum tree unit requirements in subsection G.4 of this section:

i. In the MUTC central core and ferry terminal overlay districts, those trees may be planted either at ground level or above ground level (such as a patio, terrace, or rooftop); and

ii. In the MUTC Ericksen Avenue, Madison Avenue, and gateway overlay districts, R-8, R-14, HSR I and II, NC districts, as well as for nonresidential developments within residential districts, those trees shall be planted at ground level.

H. Planting Requirements.

1. Intent. The intent of this section is to encourage the use of native species and recommend planting conditions adaptive to Bainbridge Island.

2. Requirements. Landscape designs shall conform to the following provisions:

a. Areas not devoted to landscape required by this chapter, parking, structures and other site improvements are encouraged to be planted or remain in existing vegetation.

b. New plant materials shall include native species or nonnative species that have adapted to the climatic conditions of the coastal region of the Puget Sound region.

c. New plant materials shall consist of drought resistant species, except where site conditions within the required landscape areas assure adequate moisture for growth.

d. New tree plantings shall be a minimum of two inches in caliper if deciduous or six feet in height if evergreen. New shrubs planted in roadside or perimeter buffers shall be of a variety that achieves a minimum six feet height at maturity. Soil planting types and depth shall be sufficient for tree planting.

e. When the width of any landscape strip is 20 feet or greater, the required trees shall be staggered in two or more rows.

f. Existing vegetation may be used to augment new plantings to meet the standards of this chapter.

g. Grass may be used as a ground cover where existing or amended soil conditions assure adequate moisture for growth.

h. Ground cover areas shall contain at least two inches of composted organic mulch at finish grade to minimize evaporation. Mulch shall consist of materials such as composted yard waste, composted sawdust, and/or manure that are fully composted.

i. Amend existing and/or compacted soils in accordance with Chapter 15.20 BIMC.

j. Specific submittal requirements for landscaping plans (tree protection, retention and planting plans) are included in the city's administrative manual.

3. Performance Assurance.

a. Performance assurance is required to assure the city that the landscape required by this section is properly installed and will become established and be adequately maintained.

b. The required landscape shall be installed prior to the issuance of a temporary certificate of occupancy for the project. The Washington landscape architect, Washington certified nursery professional or Washington certified landscaper shall submit a landscaping declaration to the director to verify installation in accordance with the approved plans.

c. The time limit for compliance may be extended to allow installation of landscaping during the next appropriate planting season as approved if the director determines that a performance assurance device, for a period of not more than one year, will adequately protect the interests of the city. The performance assurance device shall be for 150 percent of the cost of the work or improvements covered by the assurance device. In no case may the property owner delay performance for more than one year.

d. The form and type of the performance assurance device shall be determined by the director.

4. Maintenance Assurance.

a. The property owner shall replace any unhealthy or dead plant materials in conformance with the approved planting plan.

b. A maintenance assurance device shall be required for a period of five years after acceptance by the city of the new planting or transplanting of vegetation to ensure proper installation, establishment, and maintenance.

c. The maintenance assurance device amount shall not be less than 20 percent of the cost of replacing materials covered by the assurance device.

d. The form and type of the maintenance assurance device shall be determined by the director.

I. Irrigation.

1. Intent. The intent of this section is to provide temporary or permanent irrigation within new planting areas that do not have high soil moisture conditions. These regulations shall not apply where provisions of Chapter 16.12 or 16.20 BIMC or any state or federal law restricts irrigation, and in case of conflict with any provision of those laws, the provisions of those laws shall govern.

2. Requirements.

a. Except for areas of undisturbed existing vegetation, all landscape areas that do not have high soil moisture conditions shall have temporary or permanent irrigation systems. Temporary systems may be removed after 24 months or two growing seasons, whichever occurs first; provided, that the plantings are established.

b. Areas where existing site conditions assure adequate soil moisture for growth within the required landscape area shall have temporary irrigation systems only as required to sustain new plantings.

c. Landscape areas consisting of drought resistant vegetation may require temporary irrigation systems. Permanent irrigation systems located within required landscape areas should include the following features:

i. Moisture or precipitation sensors; and

ii. Automatic timers set for operation to assure adequate moisture levels; and

iii. Head-to-head spacing, if sprinkler heads are proposed; and

iv. Pressure regulating devices; and

v. Backflow prevention devices; and

vi. Separate irrigation zones for grass and planting beds; and

vii. Other features required to comply with applicable state and city codes.

d. Irrigation water shall be applied with goals of avoiding runoff, low head drainage, overspray, or other similar conditions where water flows onto adjacent property, nonirrigated areas and impervious surfaces by:

i. Considering soil type and infiltration rates; and

ii. Using proper irrigation equipment and schedules, including features such as repeat cycles, to closely match application rates with infiltration rates; and

iii. Considering special problems posed by irrigation on slopes and in median strips.

e. Irrigation systems shall be subject to the following additional provisions:

i. Systems in landscape strips less than five feet in width shall be designed to ensure that overspray and/or runoff does not occur by use of system design options such as low volume emitters; and

ii. Sprinkler heads with consistent application rates shall be selected for proper area coverage, operating pressure, and adjustment capability; and

iii. Separate control valves shall be used to irrigate plants with differing water needs.

J. Maintenance.

1. Intent. All new landscape plantings and significant trees and tree stands to be retained shall be maintained to preserve the Island's forested character.

2. Requirements.

a. All landscaping, significant trees and tree stands shall be maintained in a healthy growing condition.

b. Landscape areas shall be kept free of trash.

c. All plant material shall be managed by pruning so that plant growth does not conflict with public utilities, restrict pedestrian or vehicular access, or create a traffic hazard.

K. Screening of Certain Facilities.

1. Outdoor Storage. In the NC and B/I districts, outdoor storage areas shall be screened. The screen height is determined by the height of the material or equipment being screened. Chain link fencing with neutral colored slatting is permitted along with vegetative screening when vegetative screening alone is not sufficient to block the outdoor storage from public view and where the fencing is not visible from a street. Exterior storage should be confined to portions of the site least visible from public view.

2. Trash Dumpsters and Outdoor Equipment.

a. In the NC and B/I districts, trash dumpsters or any outdoor equipment, whether on roof or side of a structure, or on the ground, shall be screened from view. Screening shall be architecturally consistent with the adjacent structure in terms of materials. Mechanical equipment should be located below the highest vertical element of the building.

b. In the B/I districts, trash and recycling containers shall be located to mitigate noise impacts to nearby residential properties.

c. Small wind energy generators do not need to be screened.

3. Business/Industrial. In the B/I districts, light manufacturing uses shall visually screen the development year-round from adjacent, nonindustrial properties and from adjacent roadways. Landscape screening shall be provided in accordance with subsection D of this section. (Ord. 2019-03 §§ 11 – 15, 2019; Ord. 2018-19 §§ 2 – 5, 2018; Ord. 2017-02 §§ 1, 23 (Exh. C), 2017; Ord. 2016-28 §§ 13 – 16, 2016; Ord. 2016-01 § 1, 2016: Ord. 2015-04 §§ 2 – 8, 2015; Ord. 2012-11 § 2 (Exh. A), 2012)

Exhibit D

Chapter 16.20
CRITICAL AREAS

16.20.100 Aquifer recharge areas.

A. Applicability. Aquifer recharge areas are areas that have a critical recharging effect on groundwater used for potable water supplies and/or that demonstrate a high level of susceptibility or vulnerability to groundwater contamination from land use activities. In accordance with WAC 365-190-100, the entirety of Bainbridge Island is classified as an aquifer recharge area to preserve the volume of recharge available to the aquifer system and to protect groundwater from contamination.

B. Permit Review and Procedures

1. Any development, use or activity described in subsection B.3.b or c of this section shall require a critical area permit.

2. Critical area permits shall be reviewed pursuant to the criteria in BIMC 16.20.070.

3. Applications for critical area permits for aquifer recharge areas shall include:

a. City of Bainbridge Island master land use application (http://www.bainbridgewa.gov/161/Documents-Forms-Applications); and

b. Proposals for any development, use or activity not associated with permitted principal and accessory residential uses pursuant to BIMC 18.09.020 that has the potential to generate a pollutant identified as a potential source of drinking water contamination (either in Appendix A of the Washington State Critical Aquifer Recharge Area Guidance Document or on the North American Industry Classification System as used by the city's department of public works) or known to be deleterious to the environment or human health shall require submittal of a hydrogeologic assessment, as set forth in BIMC 16.20.180.A. If the applicant has completed a site assessment review (SAR) in accordance with Chapter 15.19 BIMC that includes sufficient information to address the elements listed in BIMC 16.20.180.A, the SAR will suffice to fulfill this requirement. Additional in-depth site assessment elements as detailed in BIMC 16.20.180.A may be required by the city or if requested by affected public water purveyors (Group A and B), affected tribes, or the Kitsap Public Health District upon review of the SAR.

c. Proposals requiring designation of an aquifer recharge protection area pursuant to subsection E.1 of this section shall require submittal of a site assessment review application.

C. Prohibited Activities and Uses. The following activities and uses are prohibited within critical aquifer recharge areas due to the probability or potential magnitude of their adverse effects on groundwater:

1. Landfills. Landfills, including hazardous or dangerous waste, municipal solid waste, special waste, wood waste, and inert and demolition waste landfills;

2. Underground Injection Wells. Class I, III, and IV wells and subclasses 5F01, 5D03, 5F04, 5W09, 5W10, 5W11, 5W31, 5X13, 5X14, 5X15, 5W20, 5X28, and 5N24 of Class V wells;

3. Chemical wood preservation and/or treatment facilities;

4. Storage, Processing, or Disposal of Radioactive Substances. Facilities that store (other than minor sources such as medicinal uses or industrial testing devices), process, or dispose of radioactive substances;

5. Hazardous liquid transmission pipelines;

6. Commercial mining and chemical washing of metals, hard rock, sand, and gravel;

7. Hydrocarbon extraction, reprocessing, refinement, and storage;

8. Electroplating/metal finishing;

9. Facilities that treat, store, process, or dispose of hazardous waste; and

10. Other Prohibited Uses or Activities.

a. Activities that would significantly reduce the recharge to aquifers currently or potentially used as a potable water source; and

b. Activities that would significantly reduce the recharge to aquifers that are a source of significant baseflow to a stream.

D. Development Standards – General.

1. No development, use or activity may exceed water quality standards or otherwise violate the antidegradation requirements specified in Chapter 173-200 WAC.

2. Any development or activity that is not exempt or excluded by subsection E.1 of this section shall ensure sufficient groundwater recharge, defined as maintaining 100 percent of the annual average pre-construction groundwater recharge volume for the site. The primary means to ensure sufficient groundwater recharge shall be through the designation of an aquifer recharge protection area in accordance with subsection E of this section.

E. Development Standards – Aquifer Recharge Protection Area (ARPA).

1. Any proposed development or activity requiring a site assessment review (SAR) pursuant to Chapters 15.19 and 15.20 BIMC located within the R-0.4, R-1 or R-2 zoning designations requires designation of an ARPA; except, designation of an ARPA is not required for the following:

a. Removal of invasive species;

b. Construction of public trails provided the standards set forth in BIMC 16.20.110.G.5.a through e are met;

c. Replacement of hard surfaces; and

d. Development and activities located on properties protected in perpetuity by a legal instrument acceptable to the city attorney wherein at least 65 percent of the site meets the development standards for aquifer recharge protection areas of this section.

e. Activities related to the development and maintenance of utility corridors, when located on lands not owned by the subject utility provider.

2. ARPA General Requirements.

a. The location and configuration of the ARPA shall be determined through completion of a site assessment review (SAR) in accordance with Chapter 15.19 BIMC. The city may require a professional forester, ISA-certified arborist or landscape architect to determine the location and configuration of the ARPA if needed to ensure the ARPA design standards set forth in subsections E.3.a through c of this section are met;

b. The ARPA shall include all existing native vegetation on a site, up to a maximum of 65 percent of the total site area. A lower percentage is allowed if necessary to achieve a development area of at least 12,500 square feet on a parcel;

c. The maximum area of the required ARPA may be reduced to 50 percent for public schools and public parks allowed in the underlying zoning district;

d. The location and configuration of the ARPA may change over time; however, the total area required pursuant to subsection E.2.b of this section shall be retained once established. Any alteration to the location or configuration of the ARPA shall be approved by the director and documented on a site plan included with a notice to title in accordance with BIMC 16.20.070.G. The city may require an ARPA stewardship plan prior to approving a change to the location and configuration of the ARPA.

3. ARPA Design Standards.

a. Healthy, existing trees and vegetation should be retained to the maximum extent possible. Healthy significant trees shall be priority trees for retention. Trees shall be retained in one or more stands or clusters.

b. The ARPA shall be delineated to include:

i. A low perimeter-to-area ratio;

ii. A minimum width of 12 feet; and

iii. The critical root zone of all significant trees.

c. The ARPA shall be contiguous with abutting, off-site areas of other ARPAs, open space or critical areas to the extent feasible.

d. The ARPA may include landscaping or open space requirements pursuant to BIMC 18.15.010.D and E and Chapter 17.12 BIMC, respectively, and other critical areas and their buffers or setbacks pursuant to other sections of this chapter.

4. ARPA Use Standards. The following developments and activities are allowed within a designated ARPA:

a. Any structure or activity as long as the new structure or activity is shown to not negatively impact the amount of groundwater recharge on the site. Specifically, any structure or activity is allowed as long as the structure or activity (including mitigation measures, if any are needed) maintains 100 percent of the annual average groundwater recharge volume that existed on the site prior to the structure or activity as demonstrated by the 2012 Western Washington Hydrology Model (WWHM2012) recharge module, as amended.

b. Tree and vegetation activities specified in BIMC 16.20.090.

c. Installation of native plants.

d. Removal of invasive plant species.

e. Passive recreation, including pervious trails.

f. Potable water wells and well houses.

g. Low impact fencing or signs marking the ARPA boundary.

h. On-site sewage drainfield facilities, if construction of the system will not require the use of heavy equipment or removal of significant trees.

i. Storm drainage facilities if the applicant can demonstrate that (i) the system meets the low impact design (LID) standards of Chapter 15.20 BIMC, and (ii) construction of the system will not require the use of heavy equipment or removal of significant trees.

j. Accessory solar panels, small wind energy generators, composting bins, rainwater harvesting barrels, and cisterns, as defined in Chapter 18.36 BIMC.

k. Other structures or hard surfaces with a total footprint of no greater than 200 square feet.

l. Driveways may be allowed to pass through the ARPA if (i) siting of the driveway within the ARPA is determined by the director to be necessary to achieve greater native vegetation retention and use of nonstructural low impact design practices, (ii) site utilities are installed within the footprint of the driveway, (iii) siting of the driveway avoids removal of significant trees to the maximum extent feasible and (iv) the total area required pursuant to subsection E.1 of this section is achieved, which may require replanting of areas comprised of nonnative vegetation.

m. Removal of any significant tree, other than hazard tree removal, with city review and preapproval of an aquifer recharge protection area stewardship plan prepared in accordance with BIMC 16.20.180.H.

5. ARPA Protection.

a. The ARPA, including the critical root zone of significant trees, shall be protected during construction as provided in BIMC 18.15.010.C.4 or as specified by an ISA-certified arborist.

b. The ARPA shall be documented on a site plan included with a notice to title in accordance with BIMC 16.20.070.G. (Ord. 2018-01 § 2 (Exh. A), 2018)

Green Text- Represents an issue or question Staff proposes to address with this Ordinance

Yellow Text- Represents an issue that should be addressed in future legislation

Blue Text- Either an easy question or there is Uncertainty as to what actions will be taken, further discussion is needed

*** This box and highlighting was added by staff to assist in analysis of these notes***

Process Issues/Concerns and Code Questions – Ordinance 2021-07

Process Issues/Concerns:

- BIMC 2.16.180 provides that the Planning Commission is required to hold a public hearing related to all amendments to the municipal code (Titles 16, 17, and 18). It is optional for the City Council to hold a public hearing. Who decides whether or not the Council holds a public hearing? When? What criteria are used? This is why, in part, I have requested that we follow our own code and have the Planning Commission's recommendation be "immediately transmitted" to the City Council (see BIMC 2.16.180.E.3).
- As stated in the staff memo, there were three items that were not included in the public hearing draft in front of the Planning Commission (at the December 17 meeting) that were included in the draft ordinance at the Council meeting. This is problematic because (a) the PC is required to have a public hearing on all amendments and (b) the public would not have been aware of these changes based on the public hearing draft that was published. One of the changes – the expansion of the landmark tree ordinance applicability – is fairly significant. I understand that it was discussed at the meeting, but people rely on what is in the published public hearing draft when deciding whether or not to make public comment.
- The ordinance included in the public hearing draft at the PC is significantly different than the version of the ordinance included in our April 27 agenda packet. Here is a link to that document: Converted from C:\Windows\Temp\ufc\conversion-2648064\input.docx to C:\Windows\Temp\ufc\conversion-2648064\output.pdf by EasyPDFConvert.exe version 17.12.8.0 at 2020-12-11 20:41:02Z (legistarweb-production.s3.amazonaws.com). It had only 13 whereas statements (it jumped to 30) and there was nothing in the "Now, therefore, the City does ordain…" section and no reference to the exhibits. How would the public know how to respond to this? The PC had requested a more complete ordinance at previous meetings but had not received it. This is important because the whereas statements are the only findings of fact on which the amendments are based. The PC was essentially asked to approve an ordinance they hadn't seen and the Council was presented with an ordinance on which there had not been a public hearing.
- There was only one public commenter at the PC public hearing. The PC did not hear the comments due to technical difficulties (unable to unmute). They submitted written comments to which staff responded at a later date, but the PC did not hear any public comment during the public hearing. The public comments were not considered by the PC in making their recommendation, which is required by our code (BIMC 2.16.180.E.1).
- The PC and Council did not receive the SEPA checklist or notice of determination.
- BIMC 2.16.180 requires the SEPA review to come before the PC review/recommendation (see flow chart). This sequence was not followed. PC recommendation was December 2020, SEPA determination was January 2021.
- The best practices manual was not provided in track changes or other format from which you could tell what was revised. It was last revised in 2010. There is no way to tell what was changed or why. It is also not referenced in the title of either version of the ordinance.

- The ordinance states in two places that the PC "met with City staff…" This could lead to the perception that the PC met with staff outside a PC meeting, which is not the case and would be an OPMA violation. It should say the PC held a meeting and discussed the proposed amendments/ordinance.

Specific comments/questions/request for clarification

Code Section	Comment/question/need for clarification
Ordinance	The ordinance title/introduction states an ordinance "amending and revising the City's tree and vegetation regulations…" It does not amend ALL of the City's tree and vegetation regulations (there is a subsection in the CAO called "trees and vegetation" – BIMC 16.20.090). This is confusing.
Ordinance	1st Whereas on top of page 3 – Ordinance 2018-45 – what is this?
Ordinance	2nd from bottom Whereas on page 2 – What is Ordinance 2018-25?
Ordinance	In general, the ordinance is difficult to read and understand what the intent of the amendments are. It is too much process related to the LMT interim ordinance.
16.18.025.G	"limited" solar access – how defined? Who decides? Parcel size specific? The flexibility within the term defaults to the staff responding/reviewing at the time
16.18.025.I	There are no definitions for these terms: clusters, thinning, undesirable, dangerous. One of the intents of this work was to include more/better definitions for clarity. Why do we have three definitions sections? Can these be consolidated?
16.18.030	Applicability – states does not apply to any portion of parcel that is designated as a critical area, including ARPAs – that is a problem because the island is designated as a critical area in its entirety – so this chapter does not apply anywhere on the island. Also, ARPAs are not critical areas (just a clarification).
16.18.030	"Within 200 feet of a OHWM" should be removed – shoreline jurisdiction can extend beyond 200 feet.
16.18.040	Generally, this is very hard to follow and needs to be improved for readability. Inside/outside certain districts, developed/undeveloped/developing property … can this be put in a table? What are all of the nuances between the different sections? Are these regulations consistent with the intent outlined (by zoning district) in BIMC 18.15? That is, what are we trying to achieve with these regulations in different places? Is MUTC/HSR districts appropriate distinction? In all cases?
16.18.040	A. "Should" comply with ANSI standards? Why not "shall"? It is shall in other part of code. B. What about removal of non-significant trees? It is not clear that this is allowed. Do we care about non-significant trees enough to include? Can we make it clear that this set of regulations applies only to significant trees if that's the case? Overall, it is really hard to know what this chapter applies to and why. D. Why is encouragement and recommendation in regulations? "Creating a shorter wildlife snag is recommended" is stated. See 050.G – removal or shortening of a snag requires a permit in some cases. Are these code sections consistent?

	E. ROW – this should specify improved only or unimproved ROW or be clear that it is both. F. Is there no limit to tree removal for these installations? There should be avoidance/minimization required. This is written strangely because the activity is not a vegetation practice/activity. G. All pruning of significant trees without a permit has to be done by an ISA certified arborist? Why? How will City enforce this? Do we want to require this additional cost for homeowners? What is the difference between "pruning" and "limbing"? These terms need definitions. They should be consistent with definitions in 16.20 and other chapters as applicable.
16.18.050	General comment: This section covers when a permit is required, but it is not clear what the intent of the permit is. Why are we reviewing tree removal if it is allowed? What are the review criteria for allowing tree removal? How does this permitting effort work to preserve trees? I understand permits are issued with standard conditions, but that is not clear by reading the code. Is the intent to notify neighbors?
16.18.050	A. This refers to BIMC 18.15.010 – what about prior versions of the code? It is not clear why tree retention requirements are referenced in this section, which deals with activities requiring a permit. B. How was "moderate and extreme" decided on? Why are we using these matrices instead of the ISA TRA form? I understand there is some disagreement on using the form, but what is the benefit of this Bainbridge-only approach? What is "reasonable use"? This needs to be defined or staff will have the discretion to decide with no criteria/guidance. This section is for developed properties. Doesn't that mean they already have reasonable use? Should this say "redevelopment"? What is "permitted construction"? A shed? A house? Need more specificity in order for code to be applied consistently and predictably. C. Any tree removal requires a permit? Of any size? A 1-inch tree? What is the value in this regulation relative to our goals? What are the review criterial other than for potential future consistency with requirements of BIMC 18.15.010? How can a "future development permit" be reviewed within the context of a current tree/veg permit? Is that legal? If not, how can we close this potential loophole (applying for tree removal before land use permit)? Who will review the tree permit? Does it now need review by the arborist and a planner? D. What is the point of this permit? What is the difference between removing 7 trees or 17 trees, for example? What are the review criteria? Subsection E does not seem to be the correct reference because it is for properties within MUTC and Subsection D is for properties outside MUTC. Is there a better way to direct readers to any retention requirements? And to clarify that there are only retention requirements in certain zones? E and F. What is the point of this permit? Don't these thresholds trigger a SAR review? What are the review criteria? Does this include tree canopy or only non-tree vegetation? H and I. States "tree removals that bring a parcel below this threshold…" but there are two thresholds provided – either 30 tree units or existing tree units. Is it either threshold? What if the property has more than 30 tree units at the time of application? Are they required to maintain more than 30 tree units? Under what circumstances would tree removal be permitted and/or replanting required? What

	are the review criteria? Does 30 tree units in any way correlate to the CFMP's tree canopy goals for these zoning districts? What is a "developing" parcel? What is the difference between an "undeveloped" parcel and "vacant" parcel? J. Same comment as above. Also, this section is unreadable – can we have a table by zoning district?
16.18.060	A. "While nonnative and invasive species should be kept under control and eradicated if possible, native understory vegetation shall be maintained and land disturbing activity shall be kept to a minimum. Stump pulling and use of heavy equipment is only allowed if the activity will not affect the health of adjacent trees." This is not a regulation/standard – it is a "should." Shoulds are nice, but how are they enforced? Who decides? Why and in what cases do we want to eradicate non-native species? How is this enforced? Stump pulling seems to be more related to construction protection measures in 18.15.010. B. How do 18.15.010 and the best practices manual work together? Conflict? Does the code rule in case of conflict? If the manual is cited in the code, is it a requirement? This is why it is important to reference in the ordinance and to provide context for why it is needed, why it is revised, and why it is traveling with this ordinance. D. "Without a permit pursuant to this section…" is confusing. Does that mean any vegetation activity that someone does without a permit or only vegetation activity that doesn't require a permit in this section? For example, mowing a lawn. It doesn't require a permit, but it is not listed in this section as an activity that does not require a permit. Why do we spend so much time on what DOES NOT require a permit in this section? Why can't it just say you do not need a permit unless you do these things? Why are ANSI standards a "shall" here? How will this be enforced? It is "should" be followed in previous section.
16.18.070	C. Why is 16.12 and 16.20 referenced when 16.18 does not apply to the shoreline or critical areas?
16.18.080	What is the fee for an ATF permit? Is it more than the before the fact permit?
16.18.085	A. What is a "site-specific analysis"? This is defined in BIMC 16.12, shoreline code, but not here. Who is a "qualified professional"? These are defined in BIMC 16.20, but not here. Which function does the professional need to be qualified in? C. Again, why is shoreline and critical area code referenced? The whole island is a critical area!
16.18.085	I am generally unclear when this is required and/or desired. It states, it is for activities "that require a permit and are planned over multiple years may be permitted for up to a 5 year period after the submittal and City review of a Forest Stewardship Plan." I am also unclear how a mitigation/restoration plan can be required in all cases. I would think if people are managing their trees over a 5 year period, that management most likely does not include planting more trees or restoring lost function. When would this plan be beneficial? People can take out 6 trees in three years without a permit. At the end of three years, they can take out another 6 trees. So that's 12 trees in 6 years without a permit. They can take out 7 or more trees within three years with a permit (since a permit is required once the 6 trees in three year threshold is exceeded). And there is no criteria for review of that permit or any threshold on the number of trees that can be removed. So is this for the very limited times when people want to take out 7 or more trees over 5 years?

16.18.100	B. Why is enforcement/VCA in this section? Where does it say that "erosion control and clean up of the property" is required? What type of erosion control? What does clean up mean?
16.18.110	16.32 specifically reference 2.16.020.R.1 – is there a reason it is not specified here?
16.18.120	Why are there three different violations/penalties sections for three different tree and vegetation sections? Can these be consolidated? C. Restoration Plan Required. All development work shall remain stopped until a restoration plan is prepared and approved by the director. Such a plan shall be prepared by a qualified professional using the best available science and shall describe how the actions proposed meet the minimum requirements described in BIMC 16.18.090. What is a "qualified professional"? How is best available science defined? This is a construct of the GMA and is defined there specifically. What does it mean in this context? So a person who has to do a restoration plan for removing a single tree has to meet all of the minimum requirements of BIMC 16.18.090? This should at least be qualified with something like "as applicable." Also, "restoration plan" is only stated in this section. BIMC 16.18.090 doesn't refer to a plan at all, and talks about replanting and mitigation, not restoration. This is important because people who get VCAs are told the need a "restoration plan." Can the average homeowner figure out how to rectify a violation?
16.18.130	• I am not sure I understand the difference between a hazard tree and a tree that has been assessed using the matrices in this code section. • Why are LID, land disturbing activities, BMPs, etc. included? Are they referenced somewhere in this code section? • Why reference the CAO in definition of significant tree? This section does not apply in critical areas. • The CAO and SMP include a definition for emergency – should one be included here? • May want to consider definitions for: pruning, limbing, reasonable use, clusters, thinning, undesirable, dangerous, qualified professional, tree, removal (of a tree).
16.32.005	This chapter DOES apply in the shoreline district and CAOs?
16.32.010	• Dead tree – why is a TRAQ qualified arborist needed to determine if a tree is dead? ISA certified not sufficient? TRAQ is about risk, right? • Why are we specifying dbh here and not in 16.18? • Removal should be expanded to include actions that would lead to death like construction impacts. Example: "Tree removal" means removal of a tree(s) or vegetation, through either direct or indirect actions including, but not limited to, clearing, topping or cutting, causing irreversible damage to roots or trunks; poisoning; destroying the structural integrity; and/or any filling, excavation, grading, or trenching in the dripline area of a tree which has the potential to cause irreversible damage to the tree, or relocation of an existing tree to a new planting location. • Need definition of "reasonable use" and "feasible" for 16.32.030.D.1 • Replacement tree – is it 6 feet and 1" caliper? • Size definition conflicts with replacement tree definition (is it dbh, height, or caliper)?

16.32.015	Is it really a "removal of landmark tree permit" that is required? "Removal" is defined as intent to kill. Why would a permit not be need to kill (remove) a dead tree? The definition of landmark tree should include an exclusion for dead trees. That is, a dead tree is not a landmark tree. Why is routine maintenance like pruning and thinning included in a section about exemptions from a removal permit? When is tree removal "routine maintenance"? How can removal be "routine"?
16.32.020	General comment: Isn't a stated goal of this ordinance "Expanding and refining the qualifying characteristics and species of Landmark trees?" There are 10 trees added to the list. Is this it? What are the qualifying characteristics that have been refined?
16.32.020	In general, many of the size thresholds seem too big. What is the reference for these sizes? This should be provided in the ordinance – what are the findings of fact? City of Seattle has some very different thresholds for several trees. I know this is not Seattle, but this section applies only to our densest areas. With such high thresholds, we are losing the opportunity to develop a larger canopy in these areas over time. Examples of Seattle vs. proposed COBI size thresholds (Seattle size/COBI size): Birch: 20/30" Doug fir: 30/40" Grand fir: 24/40" Madrona: 6/24" Vine maple: 8/not listed Oak: 6/30-38" Willow: 8/30" Yew: 6/20" Sitka spruce: 6/36" Pacific dogwood: 6/20"
16.32.030	D. Need definitions for "necessary to enable construction on" and "reasonable use" and "feasible" – construction of what? The paragraph following the tables is repeated information from C and D – can this be consolidated? E. What is number of replacement inches? Can an example be provided? Does this relate in any way to tree units/tree retention requirements? Who decides where the replacement tree is located? What species? Do the replacement trees have to achieve a similar size of the removed tree? Should add "the tree is dead" as one of the reasons for allowing removal. Should wildlife snag be considered? Why do we not require replacement trees for ALL removed landmark trees? Particularly if in-lieu is allowed. What percentage of approved LMT removals have been hazardous or removed because of utilities/easements vs. for construction/reasonable use? F. Are three 6' tall trees enough in lieu replacement?
16.32.060	Don't the CAO and SMP both say the most restrictive will apply in the event of conflict with other code sections? Is this consistent with this language here?
16.32	Why is there no surety for replacement trees?

May 15, 2021

MEMO TO: Nick Snyder, Jennifer Sutton, and Christy Carr

FROM: Jon Quitslund

CC: Heather Wright and Kim McCormick Osmond

It may be useful if I comment on those items in Councilmember Carr's list of "concerns and code questions" that have been highlighted either blue or yellow, in order either to allay the concern or to suggest a response. It is clear to me now that BIMC 16.18 was in some respects "amateurish" in its conception and articulation, but very little in the chapter was carelessly assembled – which is more than I can say about some other portions of the Code.

1. Ordinance 2018-45 (enacted, I believe, in November of 2018), extended the official control and applicability of the Landmark Tree regulations in BIMC 18.32. Perhaps it would simplify the recitals and add clarity to the present Ordinance if the history of measures taken to enact Landmark Tree regulations (first on an emergency basis and then to amend and extend their lifespan), was summarized in one or two recitals.

2. Ordinance 2018-25 is mentioned first in the 6th WHEREAS on p. 1.

3. I take it that the present Ordinance, as a whole, is designed to achieve greater coherence and clarity in most, not quite all, of the separate parts of the BIMC pertaining to trees and vegetation. Each of those separate parts is complicated, with a bewildering history, and this Ordinance is far from the first attempt to achieve coherence. In the long list of recitals, the messy history of the Landmark Tree ordinance and its attendant interim control is like a tail that wags the dog, and perhaps that can be brought better under control.

4. 16.18.025.G: "To allow limited tree and vegetation removal to provide for solar access, agriculture and gardens." Would the sentence be better without the undefined term, "limited"? The committee that drafted BIMC 16.18 discussed this at length. Depending on site-specific circumstances, what is allowed might require a permit, or might fall within the limits of "activities allowed without a permit," or might be settled during Site Plan & Design Review. In itself this statement is not meant to be regulatory.

5. 16.18.025.I: This is the last item in a string of **Purpose** statements, not meant to have regulatory force. Achieving this and several other purposes depends in part upon the effectiveness of regulations and oversight, and in large measure on the voluntary investments of time and effort by property owners.

6. 16.18.040 is **"Activities Allowed without a Permit."** Over the years of committee work devoted to developing this chapter, no part of it was subjected to more scrutiny and discussion than this section.

7. 16.18.040.B: "What about removal of non-significant trees?" Indeed. The distinction between one class of trees and another seems to be necessary, but it's problematic. Allowing some removals w/o a permit, even of significant trees, is also necessary: it's neither reasonable nor feasible to require a permit for all removals. None of this works if

we can't or won't trust property owners to have good reasons for preserving some trees and removing others.

8. 16.18.040.D: "Why is encouragement and recommendation in regulations?" Because these are activities allowed without a permit.

9. 16.18.040.F, "The installation and maintenance of fire hydrants, water meters, pumping stations, and street furniture by the city or utility companies or their contractors." I can't recall the reasons for including this; a representative of PSE participated in several of the Ad Hoc Committee's meetings. I agree, "There should be avoidance/minimization required."

10. 16.18.050 is **"Activities Requiring a Permit."** The general comment raises legitimate questions. Again, a great deal of committee and staff time was devoted to the particulars here. The City arborist's experience with administration of this section might tell us if the section needs more fixing.

11. 16.18.050.B.(2): The questions, highlighted in yellow, pick at fine points in a provision that may be unnecessary.

12. 16.18.050.C: Rather than "any tree," obviously this should be "any <u>significant</u> tree." The comment in yellow recognizes a potential loophole. A better solution in these circumstances might be to say that no tree removal permit will be issued prior to site plan review or a building permit.

13. 16.18.050.D: Responding to "What is the point of this permit?" It is easy to imagine an undeveloped lot on which site preparation for a single family residence will require removal of more than the number of significant trees allowed within any 36-month period. From this point to the end of section .050, comments identify real problems that require attention. Quite some time ago, it was pointed out to me that the Code lacks adequate provisions for land clearing, and perhaps that is still the case, but I don't think this chapter is the place for such regulations.

14. 16.18.060.A: The sentence quoted in the comment begins with a "should," because to my knowledge property owners have never been <u>required</u> to eradicate non-native and invasive species.

15. 16.18.060.B: The questions about conflict between BIMC 18.15.010 and the *BPM* are best dealt with by the Arborist.

16. 16.18.060.D: "For example, mowing a lawn" is non-sensical in this context. Rightly or wrongly, this chapter was composed for the benefit of property owners, on the assumption that activities requiring a permit are a small part of their lives and their care-taking. The long reference to the ANSI A300 manual was added at the request of either Katy Bigelow or Mike Juneau.

17. 16.18.070.C: The references to 16.12 and 16.20 should be struck out.

18. 16.18.080: The Arborist would know what, if any, fee is charged for a permit that has been properly applied for. There have been persistent protests against the very idea of an after-the-fact permit. Whether the fee charged after the fact is punishment enough

for the failure to obtain a permit, I don't know. Does this section make it clear enough that you can't get an after-the-fact permit for doing something that would not have been permitted?

19. 16.18.085: Since this section is new, I'm not inclined to comment on it, except to say that years ago, the Ad Hoc Committee was very much in favor of developing guidelines for individualized stewardship plans, but never got into the specifics. I think what's needed is a template or format – not a definitive set of requirements in the BIMC.

20. 16.18.100 to 120: I don't recall much attention being paid to these sections during the drafting process in the Ad Hoc Committee. It should be fairly easy to respond to the comments in yellow.

I find that I have nothing constructive to say about BIMC 16.32.

CITY OF BAINBRIDGE ISLAND

ENVIRONMENTAL (SEPA) CHECKLIST
FORM MUST BE COMPLETED IN INK, PREFERABLY BLUE
PENCIL WILL NOT BE ACCEPTED

CITY OF
BAINBRIDGE ISLAND

PLEASE READ THE FOLLOWING CAREFULLY BEFORE FILLING OUT THE CHECKLIST

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 impact.

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.

LEFT COLUMN TO BE COMPLETED BY APPLICANT. | FOR STAFF USE ONLY

A. background [help]

1. Name of proposed project, if applicable: [help]
   Ordinance 2021-07

2. Name of applicant: [help]
   City of Bainbridge Island

3. Address and phone number of applicant and contact person: [help]
   Nicholas Snyder
   City Arborist
   Department of Planning and Community Development
   280 Madison Avenue N
   Bainbridge Island, WA 98110
   206-780-3717 nsnyder@bainbridgewa.gov

4. Date checklist prepared: [help]
   January 19, 2021

5. Agency requesting checklist: [help]
   City of Bainbridge Island

6. Proposed timing or schedule (including phasing, if applicable): [help]
   The City Council is expected to adopt Ordinance 2021-07 on February 23, 2021.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [help]
   NO

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [help] ***NA***

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]
   This non-project action does not pertain to a specific property.

10. List any government approvals or permits that will be needed for your proposal, if known. [help]
    City of Bainbridge Island City Council approval of Ordinance 2021-07.

LEFT COLUMN TO BE COMPLETED BY APPLICANT.	FOR STAFF USE ONLY

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]

Ordinance 2021-07 amends BIMC Section 16.18 "Tree Removal, Forest Stewardship, and Vegetation Maintenance", 16.32 "Protection of Landmark Trees", 18.15.010 "Landscaping, screening, and tree retention, protection and replacement" and 16.20.100 "Aquifer Recharge Areas". Its purpose is to provide needed updates to language, and revisions to procedures that will reflect current best practices for tree and vegetation management. The update also includes language that supports responsible wildfire mitigation and provides a pathway for wider forest stewardship planning. Additionally, the Community Forest Best Management Practices Manual is included for adoption.

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]

This non-project action does not impact a specific property, and applies city-wide, in a range of zoning districts.

B. ENVIRONMENTAL ELEMENTS [help]

1. Earth

a. General description of the site [help]
(circle one): Flat, rolling, hilly, steep slopes, mountainous,

Other: The City (Island) is characterized by an irregular coastline of approximately 50 miles with numerous bays and inlets. The topography is generally of low rolling hills with several ridges orients mostly north to south at 250 to 425 feet elevation.

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

There are slopes on the Island at 100% or more.

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]
This non-project action does not affect a specific property. Soils and soil types are not generally impacted by this non-project action. An extensive discussion of the soils and their properties can be found in the USDA Soil Survey of Kitsap County.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [help]
Does not apply

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]
Does not apply

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [help]
Does not apply

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [help]
Does not apply to this non-project action.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [help]
Does not apply

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]
Does not apply

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [help]
Does not apply

c. Proposed measures to reduce or control emissions or other impacts to air, if any: [help]
Does not apply

LEFT COLUMN TO BE COMPLETED BY APPLICANT.	FOR STAFF USE ONLY

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]

Does not apply. This non-project action does not affect a specific property. Bainbridge Island has many streams, springs, and wetlands and is surrounded by Puget Sound, and its associated Ports, Passes, and Harbors.

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]

Does not apply. This ordinance will not apply within the City's shoreline jurisdiction.

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]

Does not apply

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [help]

Does not apply

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

Does not apply

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]

Does not apply

LEFT COLUMN TO BE COMPLETED BY APPLICANT.	FOR STAFF USE ONLY

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]

Does not apply

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]

Does not apply

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

Does not apply

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

Does not apply

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

Does not apply

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

This non-project action does not apply to any specific development proposal.

4. **Plants** [help]

a. Check the types of vegetation found on the site: [help]

This non-project action does not affect a specific property.

b. What kind and amount of vegetation will be removed or altered? [help]

This non-project action does not propose to remove or alter any vegetation.

c. List threatened and endangered species known to be on or near the site. [help]

Does not apply

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

Does not apply.

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

Does not apply

5. **Animals**

a. List any birds and other animals which have been observed, or are known to be on or near the site. Examples include: [help]

Does not apply. This non-project action does not affect a specific property.

b. List any threatened and endangered species known to be on or near the site. [help]

Does not apply

c. Is the site part of a migration route? If so, explain. [help]

Does not apply

d. Proposed measures to preserve or enhance wildlife, if any: [help]

Does not apply

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

Does not apply

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]

Does not apply. This non-project action does not affect a specific property.

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

Does not apply

LEFT COLUMN TO BE COMPLETED BY APPLICANT.	FOR STAFF USE ONLY
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] *Does not apply*	

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]

Does not apply.

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

Does not apply.

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.

Does not apply.

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.

Does not apply.

4) Describe special emergency services that might be required.

Does not apply.

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

Does not apply

b. **Noise**

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

Does not apply

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]

Does not apply.

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

Does not apply.

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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]
This non-project action does not affect a specific property.

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]
Does not apply.

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:
Does not apply

c. Describe any structures on the site. [help]
Does not apply

d. Will any structures be demolished? If so, what? [help]
Does not apply

e. What is the current zoning classification of the site? [help]
This non-project action does not affect a specific property.

f. What is the current comprehensive plan designation of the site? [help]
This non-project action does not affect a specific property.

g. If applicable, what is the current shoreline master program designation of the site? [help]
This non-project action does not affect a specific property.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [help]
This non-project action does not affect a specific property.

i. Approximately how many people would reside or work in the completed project? [help]
This non-project action does not affect a specific property.

j. Approximately how many people would the completed project displace? [help]
Does not apply.

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k. Proposed measures to avoid or reduce displacement impacts, if any: [help]
Does not apply.

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [help]
Does not apply.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:
Does not apply

9. **Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [help]
Does not apply. This non-project action does not affect a specific property.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [help]
None.

c. Proposed measures to reduce or control housing impacts, if any: [help]
Does not apply.

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]
Does not apply.

b. What views in the immediate vicinity would be altered or obstructed? [help]
Does not apply.

c. Proposed measures to reduce or control aesthetic impacts, if any: [help]
Does not apply.

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11. **Light and glare**

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

Does not apply. This non-project action does not affect a specific property.

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

Does not apply.

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

Does not apply.

d. Proposed measures to reduce or control light and glare impacts, if any: [help]

Does not apply.

12. **Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity? [help]

Does not apply. This non-project action does not affect a specific property.

b. Would the proposed project displace any existing recreational uses? If so, describe. [help]

Does not apply.

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

Does not apply.

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]

Archeological and historic resources are recorded at the State of Washington Departments of Community, Trade and Economic Development, Office of Archeology and Historic Preservation, and in All Historic Resources Survey of Bainbridge Island, March 1987, Boyle Waggoner Architects. This non-project action does not affect a specific property.

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]

Does not apply.

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]

Does not apply.

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.

Does not apply.

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]

Does not apply. This non-project action does not affect a specific property.

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]

Bainbridge Island is served by Washington State Ferries and by Kitsap Transit. Kitsap Transit operates a commuter system which is coordinated with the ferry schedule in addition to a dial-a-ride service.

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

Does not apply.

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]

Does not apply.

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

Bainbridge Island is not served by rail or air transportation, but is served by the Washington State Ferries

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

Does not apply.

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.

Does not apply.

h. Proposed measures to reduce or control transportation impacts, if any: [help]

Does not apply.

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]

Does not apply. This non-project action does not affect a specific property.

b. Proposed measures to reduce or control direct impacts on public services, if any.

Does not apply.

16. **Utilities**

a. Circle utilities currently available at the site: [help]

Does not apply. This non-project action does not affect a specific property.

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]

Does not apply.

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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: Nick Snyder Digitally signed by Nick Snyder

Name of signee Nicholas L. Snyder

Position and Agency/Organization: City Arborist, City of Bainbridge Island

Date Submitted: 1/22/2021

D. 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.

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.

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?

This non-project action will have no negative effect on discharge to water; emissions to air; production, storage or release of toxic or hazardous substances; or production of noise. This ordinance will not result in the production, storage or release of toxic or hazardous substances- it continues to protect stormwater quantity and quality. Any tree removal activity will undergo a site-specific analysis at such time, and meet all City and State stormwater management, and County waste management regulations.

Proposed measures to avoid or reduce such increases are:

No measures proposed as part of this non-project action.

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

This non-project action will have no negative effect on plants, animals, fish or marine life

Proposed measures to protect or conserve plants, animals, fish, or marine life are:
No measures proposed as part of this non-project action.

3. How would the proposal be likely to deplete energy or natural resources?
This non-project action will not deplete energy or natural resources.

Proposed measures to protect or conserve energy and natural resources are:
No measures proposed as part of this non-project action.

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?
This non-project action will not use or affect environmentally sensitive areas or areas designated for governmental protection.

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

No measures proposed as part of this non-project action.

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:
No measures proposed as part of this non-project action.
The non-project action will not specifically affect shoreline use.

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

The non-project action will not increase demands on transportation or public services and utilities.

Proposed measures to reduce or respond to such demand(s) are:
No measures proposed as part of this non-project action.

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

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The non-project action will not conflict with local, state or federal requirements for the protection of the environment.	

To: LEGAL NOTICES
Publication Date: January 29, 2021 Issuance Date: January 29, 2021

NOTICE OF DETERMINATION OF NONSIGNIFICANCE (DNS)

The City of Bainbridge Island has made a decision concerning the following non-project action:

Applicant: City of Bainbridge Island

Project Name: Ordinance 2021-07, Formerly known as Ordinance 2020-28

Description of Proposal: An ordinance amending Bainbridge Island Municipal Code Sections *16.18* "Tree Removal, Forest Stewardship, and Vegetation Maintenance", 16.32 "Protection of Landmark Trees", 18.15.010 "Landscaping, screening, and tree retention, protection and replacement" and 16.20.100 "Aquifer Recharge Areas" related to tree protection and vegetation management, and including the Community Forest Best Management Practices Manual (2020) proposed for adoption.

Location of Proposal: City of Bainbridge Island

SEPA Decision: The City of Bainbridge Island (lead agency) has determined that the proposal does not have a probable significant impact on the environment. This DNS is issued under WAC 197-11-340 (2). This determination 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 upon request. An environmental impact statement (EIS) is not required under RCW 43.21C.030 (2) c. **The lead agency will not act on this proposal for 14 days. Comments must be submitted by no later than 4:00 p.m. on February 12 , 2021.**

Responsible Official: Heather Wright
Director, Department of Planning & Community Development

Address: City of Bainbridge Island
280 Madison Avenue North
Bainbridge Island, WA 98110
Email: pcd@bainbridgewa.gov

Signature: Heather Wright **Date:** 1/22/2021

APPEAL: You may appeal this determination by filing a written appeal and paying the appropriate fee to the City Clerk, at 280 Madison Avenue North, Bainbridge Island, WA 98110, in accordance with the procedures set forth in the Bainbridge Island Municipal Code, Section 16.04.170 **no later than 4:00 p.m. on February 19, 2021. You should be prepared to make specific factual objections.**

If you have any questions concerning this non-project action, contact:

Nicholas Snyder, City Arborist
Department of Planning & Community Development
280 Madison Avenue North
Bainbridge Island, WA 98110
(206) 780-3717; Email: pcd@bainbridgewa.gov

From: Deborah Rudnick <debrudnick@gmail.com>
Sent: Thursday, December 17, 2020 7:24 PM
To: PCD <PCD@bainbridgewa.gov>
Cc: Jon Quitslund <jon.quitslund@cobicommittee.email>
Subject: Comments on revisions to tree ordinance

CAUTION: This email originated from outside the City of Bainbridge Island organization. DO NOT click links or open attachments unless you recognize the sender and know the content is safe.

Greetings! I attended the planning commission public hearing on the tree ordinance language tonight but was unable to get my sound to work properly, so I wanted to provide some written comments on Chapter 16.18, which is all I have had the time to step through in a methodical fashion at this point. I will try to excerpt the section and relevant text to be specific about my comments as follows:

16.18.020 findings:
E. The community forest resources of the island are best understood as a mosaic, with some large and many small pieces, on publicly owned and private properties. When clearing for development further fragments the mosaic, both individual and community interests are affected
-It is unclear to me what is meant in this statement by "individual and community interests are affected." What community and individuals are being referred to? People? I could see how we might be concerned about effects on people in terms of the ecological services they are being provided by the forest, but isn't fragmentation also a concern for the vegetation itself and for the wildlife that live in it?

16.18.025 Purposes
"G. To allow limited tree and vegetation removal to provide for solar access, agriculture and gardens."
-Given the potentially substantial impacts to forest canopy to allow for solar access, I would like to see some more discussion in this document regarding the guidance around tree removal for solar access- but Im not currently finding any.

16.18.040: *"Pruning should comply with ANSI A300 (Part 1 – 2017), Tree, Shrub and Other Woody Plant Management – Standard Practices, to maintain long term health. "* Is it possible to provide a hyperlink to this document or some instruction on how to find it?

Speaking of hyperlinks, it looks like this chapter has several hyperlinks to other parts of BIMC, but they aren't acting like live links? That may simply be because of the version that was posted, but I wanted to check on that.

16.18.050

16.18.050-1: Likelihood Matrix and table 2: I have tried, but truly, I do not understand these risk matrices nor how they are supposed to be employed. Could there be text added that describes how these tables are supposed to be used?

Are there supporting reasons or information that dictate why in sections H, I and J, 30 and 40 tree units per acre are considered the minimum number to be retained? On what are those numbers based?

16.18.100 Mitigation and Restoration
Performance standards: *1. Historic structural and functional values Vegetation types, size, distribution and habitat functionsshall be restored, including water quality and habitat functionsincluding stormwater infiltration;2. Historic soil types and configurationorganic matter and infiltration rate shall be replicated;3. The disturbed area shall be replanted with vegetation that replicates the vegetation historically found on the site in species types, sizes, and densities. The historic environmental functions and values should be replicated at the location of the alteration;*
What are the metrics to be used to identify these performance standards? For instance, does an applicant need to sample organic matter at the site prior to and following restoration to demonstrate improvement? Do they need to sample infiltration rates? What constitutes "vegetation historically found on the site in species types, sizes and

densities- and would you therefore require photographic or other confirmation of what those historic conditions were? Its very hard to understand how these standards would be addressed. I would encourage thinking about what is logistically and actually feasible and what it is you are asking to be measured to satisfy these standards.

The definition of invasive/exotic species in Chapter 16.18:
"Invasive/exotic species" means opportunistic plant species (either native or non-native) that colonize disturbed ecosystems and may come to dominate the plant community in ways that are seen by us as reducing the values provided by the previous plant community" for multiple reasons:

- There is research that supports that disturbed ecosystems are more susceptible to invasive species, but invasive species may absolutely colonize intact ecosystems, and I therefore would remove that modifier
- Many plant species are fundamentally opportunistic, so that term does not convey useful information about invasives
- Rather than using "values" of the plant community, which is kind of obtuse, could I suggest a word like "function", which is perhaps more relevant to the ecology of the community

A suggested alternative definition for invasive species:

Invasive plant species are those species that are accidentally or intentionally introduced into a functioning plant community and have the ability to outcompete other species in the invaded community. Invasive plants may alter or reduce the ecological functions provided by the extant plant community if they are not controlled or eradicated.

Thank you for the opportunity to provide comments on these important materials.

Sincerely,

Deb Rudnick

From: Nick Snyder <nsnyder@bainbridgewa.gov>
Sent: Monday, December 21, 2020 11:59:58 AM
To: Deborah Rudnick <debrudnick@gmail.com>; PCD <PCD@bainbridgewa.gov>; Ashley Mathews <ashley.mathews@cobicommittee.email>; Christy Carr <ccarr@bainbridgewa.gov>; Joe Paar <joe.paar@cobicommittee.email>; Jon Quitslund <jon.quitslund@cobicommittee.email>; Kimberly McCormick Osmond <Kimberly.McCormick.Osmond@cobicommittee.email>; Lisa Macchio <lisa.macchio@cobicommittee.email>; Sarah Blossom <Sarah.Blossom@cobicommittee.email>; William Chester <william.chester@cobicommittee.email>; Heather Wright <hwright@bainbridgewa.gov>
Subject: RE:(Planning Commission) Comments on revisions to tree ordinance

Good morning Deb,

Please find my responses to your comments below in red.

Greetings! I attended the planning commission public hearing on the tree ordinance language tonight but was unable to get my sound to work properly, so I wanted to provide some written comments on Chapter 16.18, which is all I have had the time to step through in a methodical fashion at this point. I will try to excerpt the section and relevant text to be specific about my comments as follows:

16.18.020 findings:
E. The community forest resources of the island are best understood as a mosaic, with some large and many small pieces, on publicly owned and private properties. When clearing for development further fragments the mosaic, both individual and community interests are affected
-It is unclear to me what is meant in this statement by "individual and community interests are affected." What community and individuals are being referred to? People? I could see how we might be concerned about effects on people in terms of the ecological services they are being provided by the forest, but isn't fragmentation also a concern for the vegetation itself and for the wildlife that live in it?
My reading is that individuals and the wider human community have a vested interest in a functioning ecosystem and this should be held in mind when looking at permitted actions under this chapter, but also that individual desires to cut down a bunch of trees should be able to be weighed against any negative community impacts. I think fragmentation does have ecological impacts but I think that is addressed in the paragraph immediately above this one in the code:

D. Removal of trees and understory vegetation, combined with extensive disturbance of soils, cause loss of habitat and wildlife, runoff and soil erosion, degradation of surface water and aquifer recharge, and adverse impacts on air quality, as well as loss of aesthetic appeal.

16.18.025 Purposes
"G. To allow limited tree and vegetation removal to provide for solar access, agriculture and gardens."
-Given the potentially substantial impacts to forest canopy to allow for solar access, I would like to see some more discussion in this document regarding the guidance around tree removal for solar access- but Im not currently finding any.
I believe that providing flexibility for solar access is an important inclusion in our tree and vegetation code. The language is clear that the activity should be "limited" and this kind of activity would also be subject to our clearing regulations and stormwater regulations that require additional planning, potential replanting, and potential ARPA dedication, depending on the scale of work. This provision allows the city to approve reasonable requests for tree removal to serve green energy capabilities and for people to provide enjoyable and productive outdoor spaces on their properties. There are other built in limits in this chapter (16.18) and others (15.19, and 16.20 specifically) which prevent large scale deforestation without in kind mitigation.

16.18.040: *"Pruning should comply with ANSI A300 (Part 1 – 2017), Tree, Shrub and Other Woody Plant Management – Standard Practices, to maintain long term health. "* Is it possible to provide a hyperlink to this document or some instruction on how to find it?

It is available online but behind a pay wall. The city does provide copies at city hall for viewing and photocopies and we do have limited copies to share as well. I realize this isn't ideal during covid, I will inquire about providing a copy of the manual on the city website. This manual is the industry standard for tree care and is usually published by the Tree Care Industry Association (TCIA). The next step in the Landmark tree Work plan (which this update is a part of) is to increase and improve public outreach and education about tree regulations so hopefully this can dovetail with the education effort.

Speaking of hyperlinks, it looks like this chapter has several hyperlinks to other parts of BIMC, but they aren't acting like live links? That may simply be because of the version that was posted, but I wanted to check on that.

We Will connect the broken links

16.18.050-1: Likelihood Matrix and table 2: I have tried, but truly, I do not understand these risk matrices nor how they are supposed to be employed. Could there be text added that describes how these tables are supposed to be used?

This table will only be used by ISA certified TRAQ arborists, I will add some bolding and box shading to attempt to improve readability. The table does contain Arborist jargon but it will only ever be applicable to ISA TRAQ arborists who produce reports for tree removal permits. I think there is a reasonable expectation to be able to decipher the code and I will see what we can do with formatting to improve its digestibility.

Are there supporting reasons or information that dictate why in sections H, I and J, 30 and 40 tree units per acre are considered the minimum number to be retained? On what are those numbers based?

These are all existing standards in Chapter 18.15, that are being incorporated for consistency with tree retention requirements and so that all permitting requirements are listed in one location.

16.18.100 Mitigation and Restoration

Performance standards: *1. Historic structural and functional values Vegetation types, size, distribution and habitat functionsshall be restored, including water quality and habitat functionsincluding stormwater infiltration;2. Historic soil types and configurationorganic matter and infiltration rate shall be replicated;3. The disturbed area shall be replanted with vegetation that replicates the vegetation historically found on the site in species types, sizes, and densities. The historic environmental functions and values should be replicated at the location of the alteration;*

After the proposed changes this language will read:

A. For alterations to or removal of significant trees or vegetation that require a permit under this chapter, the following minimum performance standards for mitigation shall be met when replanting or other mitigation is required; provided, that if the applicant can demonstrate that greater functions or values can be obtained through the application of different standards, these standards may be modified:

1. Vegetation types, size, distribution and habitat functions shall be restored, including stormwater infiltration;

2. Historic soil organic matter and infiltration rate shall be replicated;

3 The historic environmental functions and values should be replicated at the location of the alteration;

4. Any applicable tree retention or replanting requirements shall be met through restoration of disturbed areas when possible.

B. Information demonstrating compliance with the requirements of this section shall be submitted to the director. (Ord. 2018-19 § 1 (Exh. A), 2018)

What are the metrics to be used to identify these performance standards? For instance, does an applicant need to sample organic matter at the site prior to and following restoration to demonstrate improvement? In item B you see that the applicant is required to demonstrate compliance, so yes they may be choose to do soil sampling or they may choose to argue that those properties have not been altered or they may choose to do an analysis of historic soil types and profiles. There are a multitude of ways that an applicant might show compliance here, which I think reflects the amorphous nature of restoration work since it is fairly site specific in what sorts of approaches will succeed.

Do they need to sample infiltration rates? See above

What constitutes "vegetation historically found on the site in species types, sizes and densities- and would you therefore require photographic or other confirmation of what those historic conditions were? This language is being struck in favor of the above wording , but you may still have some of the same questions. This will largely be taken to mean native forest multilayer plantings, but it may require a site visit and review of aerial, google street, or satellite photography by staff to determine what is expected on a site. again I think this provides for flexibility for site specific solutions that match site context.

Its very hard to understand how these standards would be addressed. I would encourage thinking about what is logistically and actually feasible and what it is you are asking to be measured to satisfy these standards. These standards will be applied

The definition of invasive/exotic species in Chapter 16.18:
"Invasive/exotic species" means opportunistic plant species (either native or non-native) that colonize disturbed ecosystems and may come to dominate the plant community in ways that are seen by us as reducing the values provided by the previous plant community"

for multiple reasons:

- There is research that supports that disturbed ecosystems are more susceptible to invasive species, but invasive species may absolutely colonize intact ecosystems, and I therefore would remove that modifier True, but I do not think the current definition excludes anything that should be included as an invasive species
- Many plant species are fundamentally opportunistic, so that term does not convey useful information about invasives Again true, but I don't think this excludes anything that needs inclusion as invasive
- Rather than using "values" of the plant community, which is kind of obtuse, could I suggest a word like "function", which is perhaps more relevant to the ecology of the community I sort of imagine that ecosystem functions, as important as they are, are actually a subset of the value of land. I think that aesthetic, cultural, and economic value are also impacted by invasive vegetation.

A suggested alternative definition for invasive species:

Invasive plant species are those species that are accidentally or intentionally introduced into a functioning plant community and have the ability to outcompete other species in the invaded community. Invasive plants may alter or reduce the ecological functions provided by the extant plant community if they are not controlled or eradicated.
If our current definition isn't functioning I am definitely in favor of updating it.

Thank you for the opportunity to provide comments on these important materials.

Sincerely,

Deb Rudnick

Thank you for your excellent comments Deb, I appreciate the time thinking about this issue as it certainly impacts all of us.

CITY OF
BAINBRIDGE ISLAND

Planning Commission Recorded Motion

Planning Commission Meeting Date:	**December 17, 2020**
Ordinance:	2020-28 Updates and Revisions to Tree and Vegetation Regulations
Decision Maker:	**City Council**

Planning Commission Role and Responsibility: Pursuant to BIMC 2.16.180, Planning commission review and recommendation is required for amendments to BIMC Chapter 2.16, and BIMC Titles 16, 17, and 18, area-wide rezones initiated by the city, or area-wide rezones associated with a privately initiated amendment to the comprehensive plan.

Planning Commission Action:

1. In making a recommendation, the planning commission shall consider applicable decision criteria of this chapter, all applicable law, the comprehensive plan, public comment, and any necessary documents and approvals.
2. The planning commission shall issue a written recommendation that contains (a) a statement recommending that the proposed amendment be approved, approved as amended, or denied, and (b) a statement of facts upon which the recommendation is based and the conclusions derived from those facts.
3. The planning commission's written recommendation and other documents upon which its decision is based shall be immediately transmitted to the city council and department director.

Findings of Fact and Reasons for Action

The policies presented in this chapter rest on an assumption that in, the care of trees and vegetation on their property, citizens will be guided by common sense and best practices, responsive to the purposes stated in BIMC 16.18.025. Sanctions shall be applied to activities that are found by the planning director to be reckless and destructive, and to any action or negligence that adversely affects a neighboring property, pursuant to the provisions of BIMC 16.18.120 and other applicable provisions of the code.

This draft ordinance now represents the combined efforts of the Planning Commission, Bainbridge Island Fire Department, and city staff to collaborate and address issues identified with our current tree removal and vegetation management code. Its purpose is to provide needed updates to language, and revisions to procedures that will reflect current best practices for tree and vegetation management. The update also includes language that supports responsible wildfire mitigation and provides a pathway for wider forest stewardship planning. Additionally, the Community Forest Best Management Practices Manual is included for adoption to round out our tree protection and retention strategy

CITY OF
BAINBRIDGE ISLAND

PLANNING COMMISSION RECORDED MOTION

Recommendation:

The Planning Commission recommends the City Council:

	Approve the ordinance.
X	Approve the ordinance as amended.
	Deny the ordinance.

Recorded motion on Ordinance 2020-28:

I move to forward Ordinance 2020-28 to the City Council recommending approval of the ordinance subject to the changes discussed to incorporate language from the memorandum of December 11 describing the scope of changes to the municipal code in several chapters. The ordinance is understood to include Exhibits A through E as distributed and discussed in several meetings of the Planning Commission. Quitslund/Paar

Planning Commission Record of Vote:

Commissioner	Support	Oppose	Absent	Abstain
Chester	X			
McCormick Osmond		X		
Quitslund	X			
Macchio			X	
Paar	X			
Blossom	X			
Mathews	X			
Total	**5**	**1**		

CITY OF BAINBRIDGE ISLAND PLANNING COMMISSION

Chair

Date: 12/18/20

Administrative Specialist, Planning and Community Development

Date: 12/18/20

Community Forest
Best Management Practices
Manual

2021

City of Bainbridge Island
Bainbridge Island, WA

First Draft: Kevin McFarland
Second Draft: Tree Solutions Inc., Ann Hirschi & Eliza Davidson
Revised – 2010 by Community Forestry Commission
Revised – 2020/2021 by Nick Snyder, City Arborist PCD

BAINBRIDGE ISLAND COMMUNITY FOREST
BEST MANAGEMENT PRACTICES

TABLE OF CONTENTS

INTRODUCTION

Bainbridge Island is endowed with abundant trees that give the landscape a special, forested character. This “Urban and Community Forest” is the sum total of trees in both our urbanized and suburban-rural “interface” areas, and its many benefits are well described in the 2006 **Community Forest Management Plan.** Our community forest is a source of pride and identity for Island residents. The State of Washington and the National Arbor Day Foundation has recognized Bainbridge Island as a **Tree City-USA**.

Our present challenge is to maintain enough healthy tree canopy to safeguard forest benefits for generations yet to come. Facing intense development pressure, our community is well served by making good use of every setting where trees can - or already do - grow. Some loss of trees may be inevitable as Bainbridge Island matures, but we still have abundant opportunities to fortify our common forest, where we live, shop, drive, play and exercise, worship, learn, commune with nature, and send our storm water. Available settings run the gamut from wild to urban. With commitment and foresight, we can accommodate trees almost anywhere.

Sustaining trees in Bainbridge Island’s already-developed areas presents a great challenge, and entails careful planning and vigilant maintenance. Also, after more than a century of settlement, the vestiges of native island forest are increasingly rare and vulnerable. To meet these formidable challenges, the City and local citizen leaders serving on the Community Forestry Commission together have developed a **Community Forest Management Plan**. This plan has built the foundation for this **Community Forest Best Management Practices Manual**.

The BMP Manual **provides a toolbox** of standards needed in order to reach CFMP goals for tree preservation, management and replenishment for future generations. The goal of this document is to assemble the best available science and most widely accepted practical and professional techniques now in use in urban forestry. This BMP Manual should be reviewed and updated periodically, because, like trees, knowledge is dynamic.

CFMP and BMP Manual: What Is the difference?

Community Forest Management Plan (CFMP) 2006	Community Forest Best Management Practices (BMP) Manual 2007
Defined: A roadmap for maintaining the ecological function and benefit of Bainbridge Island's forest, while integrating trees as green infrastructure in the developing urban landscape.	**Defined:** A tool box of standards for achieving the Island goals described in the **CFMP** for tree preservation, tree management and planting new trees for future generations.
What? Current State of the Community Forest: • A mixed deciduous and coniferous forest with most trees on private land. • Island tree canopy cover was 72% in 2004, only 42% in Winslow and falling fast.	**What?** Tree Basics: • Structure & Growth - Roots, Trunk and Canopy • Spare that Tree! - How to protect what we have (root zone, soil health, construction impacts). • it's not just the trees; it's the forest as well.
When? Future Forest: Maintain a 70% canopy cover for the Island and 35% for Winslow (2006).	**When?** Future Forest: Ongoing actions to ensure future canopy cover (Tree siting, planting & maintenance techniques, tree risk management).
How? Implement Plan Policies and Actions: • Protect and restore existing tree resources • Promote urban tree management • Enhance community awareness • Control invasive species destructive to forest health • Use the **BMPs** to make it all happen!	**How?** Provide and Maintain Trees for Specific Situations and Land Uses: • Urban Core • Streets & Roads / Parking lots • Residential settings • Institutional settings • Natural Areas, Green Belts and Environmentally-sensitive Areas.

This document is intended for builders, developers, landscape contractors, city planners, inspectors, engineers and operations crews, architects, landscape architects, garden designers, wetland and restoration specialists, heavy equipment, tree care & landscape maintenance operators, homeowners and do-it-yourself gardeners, community volunteers and civic leaders.

"Best management practices (BMPs)" means:
Conservation practices or systems of practices and management measures that:

a. *Control soil loss and protect water quality from degradation caused by nutrients, animal waste, toxins, and sediment; and*

b. *Minimize adverse impacts to surface water and groundwater flow, and to the chemical, physical, and biological characteristics of critical areas." (from City of Bainbridge Island Code)*

SECTION 1: TREE BASICS

Overview

Trees form an essential part of our infrastructure, just as do roads, schools and our water supply. Bainbridge Island's trees are a valuable asset, and unlike other types of infrastructure, appreciate in value over time. Trees perform essential biological functions that benefit the environment and all of us in substantial ways.

Trees perform hard labor by accomplishing the following:

- intercepting rainwater (100 mature trees catch ~250,000 gallons per year) and dispersing it more slowly into the ground
- filter smoke and other fine particulate matter from the air – Evergreens are the most efficient at this
- cleansing the air by consuming carbon dioxide and producing oxygen (100 trees remove~ 5 tons of CO_2)
- buffering noise, dust, fumes, wind and glare
- sheltering wildlife and protecting native biodiversity
- creating calm settings to rejuvenate and relax
- creating a pleasant and safer sidewalk environment
- shading street pavement, increasing its useful life
- screening the view of parking lots and utility areas from public streets
- encouraging safe driving with street trees and planting islands
- building civic pride by enhancing the beauty of public thoroughfares
- increasing aesthetic and monetary value of property
- sheltering buildings from summer heat and winter chill, reducing electricity consumption
- buffering extremes of precipitation and heat accompanying climate change

Unlike other assets, trees are *living* things with biological requirements for survival and growth. "Operating Instructions" for trees aren't universally understood by everyone, whether homeowner, student, contractor, merchant, public servant, retiree or design professional. This chapter provides information to fill common knowledge gaps, about both individual trees and trees growing together as the urban forest.

Trees suffer abuse, especially where they come into contact with the human environment . Although damage is generally not intentional, it does represent a lack of understanding and respect. Because trees can absorb and adapt to some degree of mistreatment or neglect, we may not notice signs of decline. Eventually, cumulative stresses reach a tipping point, beyond which a vulnerable tree can't garner enough soil nutrients or sun energy to photosynthesize at a rate that will keep it alive.

If we understand ***how trees grow*** and how they function in the environment, we can prevent damage and manage them proactively. We must plan for growth ***with trees in mind****,* using the principles of "low impact development" in relation to our community forest, so we can improve the odds that future Islanders will enjoy the benefits of a healthy green canopy*.*

What Tree Biology teaches us:

- Trees cannot run away – protect their roots or tops!
- Trees need oxygen, water & light – please don't cut off supplies!
- People and trees share space – think of BOTH before changing it.
- There is strength in numbers– consider the forest and soil, not just the trees.

1.1 Individual Tree structure and growth

Understanding tree biology is the starting point for appreciating and using best management practices for planting, protecting, and maintaining trees.

Definition of a tree:
A woody plant that grows to 15 or more feet in height, usually with a single trunk, growing to more than 3 inches in diameter at maturity, and possessing an upright arrangement of branches and leaves.

Trees are commonly referred to by their size at maturity:

- Small Trees: less than 25 feet tall
- Medium Trees: 25 to 50 feet tall
- Large Trees: more than 50 feet tall

Trees, like people, are complex organisms composed of many types of cells arranged into tissues and organs. New cells are produced in specialized structures called **meristems**. Those located at the ends of roots and shoots produce elongation, resulting in new growth, those near the periphery of stems increase a tree's girth.

Unlike people, trees are only generating systems: they cannot regenerate cells in the place of damaged or destroyed cells. This means that when a tree trunk is wounded, it can only "wall off" the damaged area and grow new wood around it. The damage itself cannot be mended.

Starting from the ground up, the three main parts of a tree are: roots, trunk and crown.

1.11 The Roots

The three most important things to know about tree roots are:

- There are two basic types of roots: **Woody and non-woody**
- 95% of tree roots are located in the top 18 inches of soil
- Tree roots spread far wider than the canopy edge…as much as 3 times

Tree roots grow out from the trunk a distance of 2 to 3 times the radius of the tree's crown. A tree that is 80 feet tall can have roots extending out in a 240 ft. diameter circle. Roots are located near the soil surface like a disk, to access needed nutrients, moisture and oxygen. Roots rarely penetrate deep into the earth.

Woody roots are the underground structures that **anchor** the tree. They are large, ropelike, and they taper rapidly as they move away from the trunk. Woody roots develop in response to the tree's particular environment, working together to keep it stable in wind and extreme weather.

Non-woody roots are many, small, and fibrous. They absorb water and nutrients essential for tree survival and growth. On their fine root hairs grow beneficial fungi that form *mycorrhizae*, structures that mutually benefit both the fungus and the tree. Mycorrhizae increase root surface area, thus maximizing the water and nutrient uptake passing into the water-transporting cells within the wood of the tree.

Root Depth and Spread can be difficult to measure exactly. In the PNW it is widely understood that up to 95% of a trees root system is within the first 18 inches of soil depth. This means that even activity only within the first few inches of soil can have a serious impact to tree roots. While relatively limited in depth tree roots are not usually so confined in terms of spread. Roots routinely extend up to two times the distance of the dripline and some species have been documented with roots extending over 8x the distance of the dripline!

What does this mean in the Practice?

- Excavating through a tree's root zone could sever one or more of the structural roots anchoring the tree. The tree could be destabilized and pose an increased risk of failure during an extreme weather event in the future.
- When soil in the root zone is compacted for any reason (by, heavy equipment use, construction, vehicle parking, even heavy foot traffic) the air spaces (pours) that make soil porous and allow non-woody roots to function, are crushed. Without these pores, feeder roots die and the tree begins to starve.
- Compacted soil leaves less space for water to seep down into the root zone. The results can be ponding and poor drainage, surface run-off and dry soil below.
- Leveling of a site by the addition of fill can result in roots not being able to obtain enough oxygen.

1.12 The Trunk

The trunk is the main woody stem of the tree that supports the crown. While most trees have one stem or trunk, other trees, such as vine maples, are characteristically multi-stemmed. Carbohydrates and other substances necessary for tree growth are stored in the trunk, roots and other woody portions of the tree.

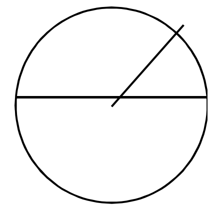
Beneath the bark—the outer protective layer that covers the trunk, limbs, branches, and roots—there is a very thin layer of specialized cells known as the **cambium layer**. This is where growth in trunk and root diameter takes place each year. It also functions as the nutrient transport system for the tree. Water is transported up through the trunk in vascular tissues **(xylem)** to other parts of the tree. Sugars produced in the leaves flow down through the trunk in other vascular tissues **(phloem)** servicing all parts of the tree including roots.

Every growing season, cambium cells divide repeatedly to form a new layer of phloem to the outside and an annual ring of new wood to the inside. The wood laid down in the early part of the growing season (early wood) contains more space for water conduction than the denser late wood that supplies more mechanical strength.

The annual rings produced by the cambium are not of uniform width or wood quality throughout the entire tree. Instead, the cambium responds to the prevailing load at any particular point by regulating the quantity and quality of new wood that it produces. By looking at a cut stump you can identify growth rings that are larger during rainy years, or asymmetrical where they have produced reaction wood to respond to a prevailing wind.

Measuring Trunk Diameter
Tree size is often measured as DBH or "diameter at breast height," which is at 4.5 feet above ground. You can calculate trunk diameter by measuring trunk circumference at 4.5 feet above the ground with a standard tape measure and dividing by pi or 3.14, a constant. A standard forester's tape converts a circumference measurement into diameter measurement.

Diameter = Circumference ÷ 3.14



What does this mean in the practice?

- When a backhoe clearing a building site removes a notch of the bark from a tree that is scheduled to be retained, its cambium layer has been damaged. Loss of this vascular life support system will make it more difficult for the tree to recover and thrive.
- Often, the diameter of the trunk is a better indicator of a tree's age than the height. Some trees, by species characteristics are stouter per height than others. A crowded conifer forest will have tall trees reaching for light with narrow stems and a low live crown ratio.
- Trunks enlarge yearly but only become taller by adding new tissue at the top. Branches don't move upward as trees grow. Since a limb 4 feet above the ground stays at 4 feet, clearance beneath the canopy does not increase with time. Thus, a sweeping-branched Western red cedar does not make a great street tree in a tight location without surgical pruning.

1.13 The Canopy/ Crown
The crown is the woody and leafy component of the tree. It is composed of large, scaffold limbs that support smaller branches, twigs, leaves, and buds. The main function of the leaves is to capture energy from sunlight and convert it to energy stored in the form of sugars and starch. **This process is known as photosynthesis.**

The sugars are transported in solution to the parts of the tree where they are needed for growth or for storage--downward and inward through the stem and roots, and a short distance upward into the growing shoots.

New growth appears as meristematic cells divide at the tips of shoots and roots.

Tree crown size is measured in square feet, based on the diameter of the branches at their greatest reach. In urban areas, a very small canopy is 150 square feet. A large canopy ranges to 1600 square feet (40 x 40 feet) or more where favorably sited.

What does this mean in the Real World?

- When planning new construction near a tree to be preserved, consider how upper building stories may impact tree branches. Branches can be temporarily roped back to avoid being torn off by equipment or placement of scaffolding. Buildings could have upper levels set back to accommodate wide canopy.
- Pruning a tree too radically greatly reduces leaf area and the tree is unable to photosynthesize at its previous rate. This throws roots and shoots out of balance and may cause shock and decline.
- Crown width indicates the "drip line", even though roots usually extend at least another crown width beyond that. The area below the drip line is known as the Critical Root Zone (CRZ) that needs protection to ensure tree survival.
- If a tree planted below utility lines is a species that grows to great stature, it will require maintenance pruning indefinitely. This poses unnecessary hardship on the trees manager AND the tree. Remember to plant the "right tree in the right place."

1.2 What is the Community Forest?

Understanding how a single tree functions is vital to giving it the right care. It is equally vital to think of trees together in groves, stands, woodlots and remnant forests. Because tree groves provide exponentially greater public benefit in terms of storm water interception and porous soils, we should consider the forest, not just the trees.

The Community Forest Management Plan (CFMP) identifies the ***Community Forest*** *as* ***any individual trees, small stands of trees or forested areas, and associated understory plants, that are found growing in natural and built environments, and which contribute important ecological, social and/or economic benefits to the community.***

The CFMP discusses the ecosystem services that trees provide such as improved air quality, storm water interception, reduction of soil erosion and energy costs, and wildlife habitat…not to mention the general enhancement of our quality of life. In cities larger than Bainbridge this collective green infrastructure is also known as the **Urban Forest**.

Why does it need Managing?

There are often conflicts where people and trees coexist. As the Journal of Arboriculture stated in January 1997: "*We cannot separate sustainable urban forests from the people who live in and around them…Urban forests require active consistent, continuing management."*

The study and practice of community and urban forestry continues to evolve as municipalities recognize the huge value that trees provide. Increasingly, this value is being quantified and progressive communities like Bainbridge Island see their forests as necessities, not just amenities.

SECTION 2: TREE PROTECTION

Overview

We have chosen to place tree protection practices near the front of this manual. An important aspect of tree protection is to **first save the best of the trees you have**. This option will *always* preserve greater ecological value, higher real estate value and probably cost less than waiting for newly planted landscape trees to mature. While not feasible in all cases, it is sensible to survey existing trees first and design for protection, rather than assume a new structure can be built right next to a prized tree without consequence.

When contemplating new construction, paving or a building addition, a property owner should first obtain a site survey. The survey will locate accurately the edges of your property and the public right-of-way, as well as existing trees. Local codes encourage saving a site's significant trees. Thoughtful site planning with trees in mind is the best first step, and buildings designed to allow retention of worthy trees have instant payback in amenity value.

If site soils are compacted into hardpan by heavy equipment, vehicles or stored materials, they will no longer be porous enough to absorb storm water or provide room for roots. What is done to soil cannot easily be undone, so it is wise to understand and protect soil before beginning construction. Protecting the soil also helps ensure a future for valuable site vegetation, especially trees.

This chapter includes information on maintaining healthy soils. The humble material beneath your feet is actually:

- The basis for stable building foundations
- The sponge that soaks up Northwest rains
- A factory of organic decay and renewal
- Home for vegetation that will provide returns well into the future.

2.1 Identification of Significant and Valuable Trees

*A "**significant tree**" as defined in BIMC 18.36 has 4 possible definitions:*

1. In the Mixed Use Town Center (MUTC) and High School Road zoning districts, any tree eight inches in diameter or greater, measured four and one-half feet above existing grade
2. *Deciduous trees outside the MUTC and High School Road Zones: 12 inches in diameter or greater, measured four feet above existing grade.*
3. *Evergreen trees outside the MUTC and High School Road Zones: 10 inches in diameter or greater, measured four feet above existing grade.*
4. *All trees located within a "critical area and/or buffer" as defined in BIMC Chapter 16.20.*

Begin with an inventory of what you have. Assemble a list of trees, noting species, size and condition. A general rule of thumb is that groups of trees with associated understory plants are easier to protect and return greater value than single trees preserved in the center of a building site.

Although it is impractical to put time and money into saving a tree that is terminally flawed or diseased, it is equally important to understand the value that tree canopy provides to the overall ecological health of Bainbridge island. A Tree Professional should provide unbiased information on tree health and will not provide justification for tree removals, if none exist. They can also help dispel fears of tree failure, which can lead to unnecessary removals of healthy and structurally sound trees.

Landscape buffers are almost always required for new subdivisions or commercial projects. On Bainbridge Island, these narrow strips of remnant forest more often than not include Douglas fir or other native conifers that are tall and slender with little canopy. Trees such as these, that begin their lives surrounded by forest, produce foliage at the top, where sunlight is abundant, while their lower branches often die back from light starvation. When site clearing creates a new woodland edge, these slim trees are exposed to a condition to which they are not adapted – standing alone. Blowdowns or breakage frequently result, and property owners understandably begin to fear tall trees.

This problem can be mitigated by planting smaller trees and shrubs that normally grow at the forest edge, removing conifers close enough to pose a risk to people or buildings and replanting young trees that can adapt to buffer conditions. The best solution is to preserve larger blocks of vegetation where the perimeter to area ratio is as low as possible.

2.2 Protection and Conservation During Construction

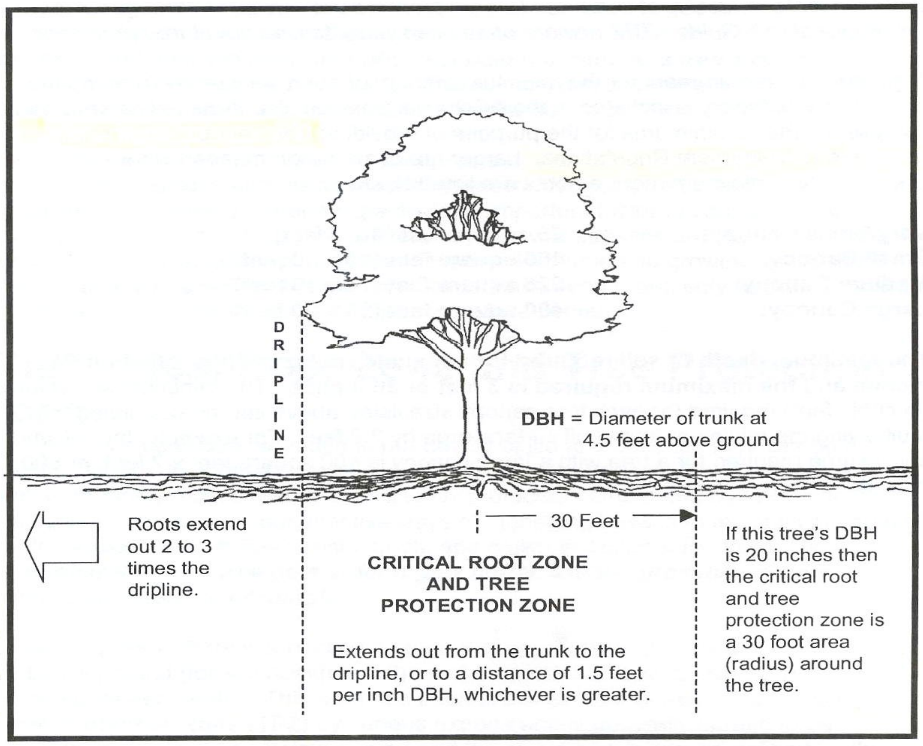
Please reference City code requirements, available from the City of Bainbridge Island Planning and Community Development Department, (206) 842-2552.

Property owners should meet with the City arborist or planner, architect, developer, and contractors to discuss tree protection issues and required permits before parties become invested in a particular site plan. This will save trees, money and headaches down the road.

2.21 Critical Root Zone (CRZ) and Tree Protection Zone (TPZ)

Most of a tree's roots lie within its dripline (or under-canopy area). Ninety-five percent of the roots of most trees grow in the top 12-18" of soil. Roots that supply nutrients and water concentrate just below the soil surface. Since fine feeder roots can only penetrate a thin layer of soil, they must spread far out from the tree to adequately supply it, well beyond the edge of the canopy above.

For existing trees, there is a minimum amount of space, above ground (for trunk and crown) and below ground (for soil health and the root system) needed to sustain a tree and preserve its health. The ground area is called the **Critical Root Zone** (**CRZ**). The CRZ is usually far smaller than a tree's entire root spread. Thus, protecting the CRZ saves a portion, but not all the roots. The greater the protected area, the better a tree's odds for survival. You can calculate the CRZ as illustrated and described below.



The CRZ falls within an imaginary circle on the ground with a radius of between 1 and 1.5 feet for every inch of tree diameter at 4.5 feet above the ground, (but never less than a seven-foot radius). For example, a tree with a trunk diameter (dbh) of 20 inches has a CRZ of 20-30 feet (20 inches x 1-1.5) around the tree.

2.22 Activities Requiring TPZ Determination

The **Tree Protection Zone** (**TPZ**) is the area to be fenced around the CRZ, in this case having a 20- 30 foot radius, and a diameter of 40-60 feet. When this configuration is not practical, a Tree Professional, based on the location of a specific tree's structural roots and other site conditions, can establish a TPZ in the field.

A TPZ is a restricted activity zone where no soil disturbance is permitted. Site work planned near the critical root zone (CRZ) of a single tree or groups of trees to be preserved, requires a TPZ. TPZ fencing should be in place before undertaking any activities that might involve trenching or other disturbance to the tree's roots, such as:

- Access roads
- Staging, storage, and temporary parking areas
- Paving or other impervious surfaces
- Temporary utility lines
- Installation of pipe drainage, irrigation or other services
- Stormwater management devices
- Grading that requires cut and fill

2.23 Activities Prohibited within TPZ

- Storage or parking of vehicles, building materials, refuse, excavated spoils or dumping of poisonous materials on or around trees and roots such as paint, petroleum products, concrete or stucco mix, dirty water
- The use of tree trunks as a winch support, anchorage, as a temporary power pole, sign posts or other similar function.
- Cutting of tree roots by utility trenching, foundation digging, placement of curbs and trenches and other miscellaneous excavation
- Soil disturbance or grade change
- Drainage changes.

A site visit by a Tree Professional is needed if advance planning fails and a trench must pass through the TPZ. Depending on specific site conditions, tree species, health, and position of any potential targets, trenching may be approved. If not, it could require risk mitigation, restoration, and payment of a bond by the contractor. Alternative remedies can include tunneling or re-routing utilities, and relocating or re-engineering walls to avoid roots of important trees. Walls and pipes can be moved, but a damaged tree cannot be repaired or readily replaced.

2.24 Activities Permitted/Required within TPZ

- Mulching. During construction, spread wood chips within the TPZ 4” to 6” deep, leaving the trunk itself clear. Mulching helps prevent inadvertent compaction and moisture loss from occurring. 2-inch unpainted, untreated wood chips or equivalent is recommended for mulch material.
- Root Buffer. When areas under the tree canopy cannot be fenced, create a temporary buffer to cover the root zone (such as wood chips and plywood) that remain in place until final grading.
- Irrigation, soil aeration with an air spade, fertilizing or other beneficial practices.

2.25 Protective Measures

Protective Measures for Retained Trees, Street Trees or Designated Trees

Tree Protection Fencing

- keep branches and foliage clear from contact by equipment, materials and activities;
- preserve roots and soil conditions from compaction;
- make it clear to all contractors on site that the tree protection zone (TPZ) cannot be violated.

Recommended fencing includes orange plastic or chain link fencing that is 4– 6 feet tall. For best results, use **chain link fence** on galvanized poles. After placement under supervision of a Tree Professional, this fencing will enclose the entire TPZ for the duration of the construction project.

To protect street trees, **a plywood box** that physically protects the trunk from gouging by nearby equipment is the best option.

Prune trees with branches that hang over into the building envelope zone before construction damages them. They may be temporarily roped back to allow for clearance during construction. A Tree Professional can perform this type of work in a way that will protect the tree.

Post a Sign
A brightly colored sign shall be posted on each fence and /or plywood box enclosure to clearly state: *WARNING - Tree Protection Zone*

Erosion Control
If a tree is adjacent to or near a steep slope or other critical area, approved erosion control or silt barriers may be necessary to prevent siltation and/or erosion within the TPZ. **Do not install silt fence within the Critical Root Zone, CRZ.** Far too often contractors trench through a tree's root zone to meet requirements for silt fence installation, causing more harm than good. Protective mulch (above) and permeable erosion control blankets can substantially reduce runoff within the CRZ.

Root Pruning
See Section 4.4 (Root Pruning) if damage to tree roots occurs during excavation on a building site. It is far better for the tree to avoid root damage in the first place.

2.3 Post-Construction Management
Once construction is complete and the site clean, the arborist should reassess the site and identify maintenance measures that may be required for retained trees. Factors to consider include:

- Stress or damage to protected trees and associated vegetation/understory
- Risk assessment
- Odds for the trees to remain healthy in the altered landscape

A maintenance plan should help relieve tree stress from construction damage, including:

- disruptions to drainage
- restricting impervious surfaces or compacted soil
- impacts of fill
- impacts of root or canopy loss, or trunk damage
- potential increased storm water runoff and erosion due to tree/vegetation loss
- interference with, or impact on, surviving or neighboring trees

2.31 Maintenance and Monitoring Strategies
Successful tree protection does not end with construction, but continues with maintenance that takes place over a number of years. It requires a sustained stewardship commitment, fulfillment of after-care responsibilities, and may require that a landscape maintenance surety device be in place before granting a Certificate of Occupancy.

Regular site monitoring and weeding are of great importance following construction. Additional management includes mulching with compost or arborist's chips and summer irrigation for the first 3 years until retained trees have recovered from construction stress and new plants are well established. During the growing season, check at least monthly that weedy plants are controlled before smothering or setting seed, and that sufficient moisture is reaching plant roots to prevent wilting, browning or dieback.

IMPORTANT NOTE:
Avoid excessive or regular watering on or near the tree trunk and do not plant incompatible, water-loving plants within the tree's dripline. Combined with poorly-drained soil, these factors often activate normally dormant fungi to become opportunistic and infect the tree, causing the decline and eventual death of the tree. This decline can be slow and may not be evident for many years.

Performance Standards to track success of vegetation establishment (or restoration) should be clear. It is imperative to monitor tree and/or plant condition at the beginning and end of each growing season, relative to these standards. If problems arise, modify maintenance methods or frequency as needed. **Target success rates** should fall within the following guidelines:

- 95% survival of retained trees protected by approved plan
- 60-80% survival of new trees and plant material after 3 years
- Tree and shrub cover establishment resulting in 30-50% growth after 3 years
- After initial clearing of invasive species all invasive grow-back should be aggressively addressed to prevent infestation for, at minimum, 3 years
- Any newly installed plants that die should be replaced within 3 years of planting

2.4 Soil Health
Preserving soil health is essential to preserving tree root health. Construction is one of the main activities responsible for *damaged* soil. While it appears that some trees will grow anywhere, most trees are particular about the soil conditions under which they will thrive. All roots need porosity in the soil to grow towards nutrients and water.

2.41 Soil Attributes
Native soils are highly complex systems that provide essential ecosystem services including bio-filtration of pollutants, nutrients for plant growth, and the storage and slow release of stormwater. The ability of soil to effectively store and slowly release water is dependent on soil texture, structure, depth, organic matter content, and biota (Washington Organic Recycling Council (WORC), 2003).

Soil fertility can be evaluated using standard tests that measure the amounts of phosphorous, potassium, calcium, magnesium, zinc, and manganese in a sample. Soil tests can determine the soil pH (acidity/alkalinity), concentration of key trace elements, and the amount of organic matter present by weight. The Kitsap County WSU Cooperative Extension Service provides soil sampling advice and soil sample analysis services. Special tests can determine the presence of soil pathogens affecting plant health.

2.42 Organic/Hydrologic Soil Balance
Organic matter is the critical component of a functioning soil system. Typically, native Puget Sound forest soils have an organic matter content of 4 to 6 percent and the sub-soils less than 1 percent.

Construction activity removes the upper layers of soil, and site equipment compacts exposed sub-soils low in organic matter. This alters the site's hydrologic characteristics by converting the predominantly subsurface flow regime of the pre-disturbance site to primarily overland flow (*Low Impact Development Technical Guidance Manual for Puget Sound*, 2005).

To restore the hydrologic and other environmental functions of disturbed soils on developed sites, added topsoil should have the following characteristics:

- A minimum organic matter content of 10 percent by dry weight for all planting beds and other landscaped areas (except turf requiring access during wet months)
- Organic matter content in turf areas that requires maintenance or supports foot traffic during the wet months should be 5 percent by dry weight
- PH between 5.5 and 7.0 or a pH appropriate for installed plants – Some acid loving plant such as conifer require a pH of 4.0 to 5.7.
- A minimum depth of 8 inches (except in TPZ)
- Planting beds mulched with 2 to 4 inches of organic material
- Subsoils below topsoil applications should be scarified to a depth of a least 4 inches and some topsoil material incorporated to prevent stratification

2.51 Soil maintenance: Enhancing Soil Composition
When beginning a construction project where retained trees will be protected:

Set Aside and Protect Native Soil and Vegetation Areas
The most effective and cost efficient method for providing the hydrologic benefits of healthy soil is to designate and protect native soil and vegetation areas that already exist on the site.

Stockpile Topsoil from Cleared and Graded Areas and Replace Prior to Planting
Strip and stockpile topsoil in approved locations. Cover with weed barrier or other breathable material that sheds moisture, yet allows for air transmission. Before replacing, test stockpiled material and if needed, amend with organic matter or topsoil to achieve required organic content to an 8-inch depth where redistributed. Replace stockpiled topsoil prior to planting.

If replaced topsoil plus compost or other organic material will amount to less than 12 inches, scarify or till subgrade to achieve 12 inches of loosened soil after topsoil and amendment are placed. The entire surface should be disturbed by scarification, and then dressed with the amendment. **Do not scarify (roughen) soil within drip-line or determined TPZ of existing trees to be retained.** To reduce damage to roots within 3 feet of tree drip-line or TPZ, incorporate amendment no deeper than 3 to 4 inches.

Import Topsoil that Satisfies Required Organic Matter Content Standards
If topsoil from the site is inadequate, bring in good quality organic compost and apply and incorporate as described above. Imported topsoil that is not blended into the subsoil layer can cause serious drainage and plant establishment problems.

2.52 Soil Stresses and Mitigation Measures

During development, compaction of the soil is the largest single factor responsible for the decline of older trees. Ninety percent of the damage to the upper eighteen inches of soil occurs with the first pass of heavy equipment – and **cannot be reversed**. Every effort must be made to avoid compaction of soil porosity within the TPZ. Correct placement of the TPZ fencing and strict adherence to the "no-fly" zone will prevent soil compaction. If, however, the completed development results in soil compaction near the trees that are to be protected, there are ways to help reduce impact injury.

If a compaction event does occur to the upper 12-inch soil horizon, one or more of the following mitigation measures, performed under the supervision of a Tree Professional, can help:

- Aeration system
- Vertical mulching
- Soil fracturing
- Core venting
- Radial trenching
- Deep mulching
- Another method recommended by an ISA Certified Arborist

Mitigation for drought stress and excess soil moisture is covered in Chapter 4.2 Watering and Irrigation.

SECTION 3- TREE SELECTION AND PLANTING

Overview

Trees should be chosen carefully, since their value increases over the decades, and is fully achieved only if growing site and species are well matched. Bainbridge Islanders can grow a wide variety of native and ornamental species, in a range of habitats. Site characteristics, aesthetics, and habitat value should all be evaluated before deciding which tree fits best.

The tree itself should be of good quality, regardless of size. Flaws in nursery stock often cannot be corrected, and may prove fatal over time. Quality matters. The City has developed an approved Landscape Materials Matrix (Appendix J), and can be used to select trees and shrubs.

Northwest native species contribute special environmental and heritage value, and are highly recommended.

3.1 Tree Selection Criteria

Potential trees need to work for the environments they will call home. A tree can't move; it can only try to adapt. Species characteristics are genetically derived, based on habitat of origin. Since neither site nor species attributes are easily changed, both must be considered in advance to ensure a successful outcome.

Before buying a tree, investigate key planting site characteristics:

- Light level (deep shade, open shade, partial shade, full sun, extreme exposure)
- Soil type (sand, silt, clay, gravelly, glacial till, humus, loam, bedrock)
- Availability of water (droughty or saturated soils, well-drained or moisture retentive soils, seasonal fluctuations, perched water table)
- Size of intended planting area (above or below ground restrictions)

If a particular site presents multiple challenges based on this evaluation, another planting location might be a better choice. If your heart is set on a certain tree, seek out a more compatible spot if necessary. For multiple-tree planting areas, the same principles apply, and the match must work for all selected species.

With site constraints in mind, the next step is to choose a suitable species among the huge range of available options. It is at this point that landscape character and desired aesthetic or functional attributes come into play. A good plant list provides detailed information to help filter options:

- Tree size (height & spread, ultimate stature, longevity & growth rate)
- Environmental tolerances (light, water, pollution, soil type & pH, etc.)
- Seasonal attributes (flower, fruit, bark, fall color, silhouette, etc.)
- Functional attributes (screening, light shade, fragrance, wildlife value, etc.)
- Drawbacks and conflicts (fruit and leaf drop, shallow roots, failure profile)

As a final selection step, you can seek out examples of good candidate species in a nursery, park or mature public or private garden such as the Island's own Bloedel Reserve. Looking at trees in actual landscapes is invaluable for envisioning a future tree's character and stature. Photos in books or on-line are also helpful. This deliberate process helps develop familiarity with both a tree and its landscape home, and provides the basis for wise decisions.

3.2 Tree Quality Standards

All trees planted on Bainbridge Island, as either street or landscape trees, should meet the standards defined in American Standard for Nursery Stock (ANSI Z60-1-1996). This standard specifies height, caliper, and rootball diameter for nursery stock. In addition, it provides standards for container tree stock and shrubs.

In addition to specifying that stock meet the ANSI standard, trees selected should:

- Have strong central leaders for all but small or multi-stemmed, spreading trees
- Have symmetrical canopy and evenly-spaced scaffold branches
- Show evidence of cultural pruning by the nursery, including corrective pruning and crown raising but without extensive heading-back (which creates branch congestion)
- Be free of damage from nursery lifting, insects, diseases, and other pests
- Have intact rootball, not broken from rough handling.
- Have weed-free, non-desiccated rootball or container soil

3.3 Miscellaneous Material

3.31 Stakes

Not all new trees need staking. In fact staking can lengthen the time it takes a trees roots to take hold in the soil. Trees planted in natural areas as part of restoration efforts, or those in protected areas do not need staking. Movement of the young tree's stem is important for developing trunk taper, which provides future strength. The use of planting stock with more substantial stem is preferable to staking.

In more urbanized settings like Winslow, where highly exposed to wind, or where there are close encounters with people and vehicles, new trees should be staked, but for **one year** only.

Install stakes and ties immediately after planting. Use stakes of sound, untreated wood, approximately 2 in. x 2 in. or 2 in. diameter, 6-8 feet long (depending on tree size), and pointed at one end. Use plastic chain-link ties to secure the tree to the stakes. Remove thin bamboo stakes and trunk-binding tape that come with some container-grown trees. Tape can girdle a tree as it adds growth rings, strangling or weakening it structurally to the point of failure.

Remember to remove all stakes after 1 year, except where necessary for trunk protection.

Do not drive a stake through a tree's root ball
Do not tie a tree directly to a stake (this immobilizes the trunk and inhibits proper growth)
Do not leave stakes – and especially ties – in place long-term

3.32 Mulch

Mulch all trees, shrubs and other plantings with an organic mulch that has been previously approved by a qualified tree professional. A mixture of composted wood chips and compost is ideal, but wood chips alone are usually sufficient. Avoid using peat moss or fine bark alone, since these actually shed water when dry, deflecting moisture from thirsty plants.

- Place mulch 4 to 6 inches deep around trees and shrubs out to the edge of the drip line. Take care that no mulch touches the trunk itself, even on small plants.
- Do not pile or mound mulch against tree trunks; This smothers roots and invites basal rot or insect attack.

3.33 Tree grates

Where sidewalk width is less than 8 feet and new trees are to be installed in tree wells, metal tree grates can successfully protect roots from soil compaction. Grates should be approved by Bainbridge Island Public Works Department, and should be at least 4' x 4', with breakouts to accommodate future trunk growth. Tree grates offer a good opportunity for integrating work of local artists in the Winslow core. Tree grate areas should be cleaned and re-mulched periodically, and inspected to be sure trunks have room to expand. Enlarge grate openings as needed.

3.4 Timing of Planting

Overall, Fall is the best time to plant in the Puget Sound region. Mild winters and rain favor root establishment before spring growth spurts. Exceptions are magnolias and a few other species, and conifers in landscape (not natural) areas; these survive better when planted in the spring. Here are guidelines for planting time:

- Balled and Burlapped (B&B) trees and shrubs: October 20th to May 1st
- Bare root trees and shrubs: January 1 to April 1st
- Container-grown trees and shrubs: All year, but best October 20th to May 1^{st,}

Schedule plant purchase and delivery as close to planting time as possible after the site is prepared. Plants that cannot go in the ground immediately upon delivery should be held in a shady location, protected with wet wood chips and kept well-watered. Plant within 4 days of delivery if possible.

3.5 Site Preparation

Call for utility locate service prior to digging a tree hole (Dial 811, open 24/7).

A percolation test is required to ensure that there is adequate drainage for planting new trees. A minimum of one test per site shall be reviewed with the contractor and a landscape architect or ISA certified arborist. Mitigation measures shall be applied to locations with poor drainage.

Planting site must be free of weeds, construction debris and spilled materials.

For trees in a confined planter pit or sidewalk area:

- Dig the planting hole to a depth that establishes the top of the rootball 2-inches below the bottom of the tree grate.
- The width of the planting hole shall be at least 4-feet. Scarify (roughen) the sides of the pit.

For trees in all other areas:
The depth of the planting hole shall be no deeper than the height of the new tree's root ball. Trees shall be set at the same relationship to finish grade as they were to the ground from which they were dug. *Beware of excess soil piled up in the root ball or container – find the plant's root flare and remove any soil above this level before (and after) planting.* Excavate the hole a minimum of three times wider than the diameter of the root ball or container, and deep enough to allow the root ball or container to rest solidly on firm ground. If initially dug too deep, refill the hole with mineral soil and tamp to bring root ball or container up to the correct level before proceeding with planting.

3.6 Tree Planting

- Move the tree using only the root ball or container; avoid using the tree trunk as a 'handle' to move the tree.
- Remove ropes, strings, and wrapping from the root ball after the tree has been set. Cut apart the wire basket and remove before backfilling.
- Make sure the roots are not currently buried in their pot or burlap by carefully excavating the surface of the root ball until the first root is found, then stop.
- Prune roots of bare root trees at the time of planting to remove damaged or undesirable roots (those likely to become a detriment to future growth of the roots system). Consult with an ISA Certified Arborist prior to pruning. Bare root trees should have the roots spread to approximate the natural position of the roots and centered in the planting pit. Work planting soil backfill firmly into and around the roots, with care taken to fill in completely with no air pockets. Watering the back fill soil will aid in keeping roots moist and removing air pockets.
- Trees must be plumb and braced in position until prepared backfill has been placed around the root ball.
- Utilize the native soil from the planting hole for backfilling, unless specified otherwise. Studies have shown this is better for long term tree health than potting soil or other amendments.
- Water twice during planting--once when the planting hole is half backfilled, and again thoroughly when full to eliminate air pockets. Soil in the hole should be moistened if necessary before setting the plant. Dry soil can kill fine roots on contact.
- Mulch all trees, shrubs and other plantings as described elsewhere in this manual.

3.7 Recommended Species
Included in the BMP Manual Appendix is a matrix of plant materials recommended for use on Bainbridge Island. All commercial, industrial, and residential projects, whatever the scope, should use this list as the basis for plant selection.

Always select species based on site-specific conditions that affect plant growth: sun exposure, soil type, moisture availability, shoreline conditions, adjacent site improvements, and any particular constraints on space or function. If above- or below-ground utilities are present, plant selection must conform with utility company requirements to avoid conflicts. Otherwise, a promising tree may later suffer damaging root disturbance or disfiguring topping, compromising its longevity and landscape value.

Suggested landscape materials matrix— *APPENDIX J*

SECTION 4- TREE MANAGEMENT AND MAINTENANCE

Overview

The recommended practices (BMPs) in this section describe basic tree care activities, and when or where to use them. Regardless of their location, all trees require some care, particularly in the early stages of life. The level of care generally increases with the level of human interaction a tree experiences. Established trees in large landscapes, buffers, riparian zones, and drainage areas require little more than periodic inspection and passive protection. Trees growing along road frontages, in parking lots, in plazas and downtown settings, in schoolyards and developed parklands and in some utility corridors require a much higher level of care since our interaction with them is frequent. People have direct impacts on trees, and trees on people. Tree maintenance and management are all about keeping people safe and trees healthy.

4.1 Mulching

Mulching is the application of organic material on top of the ground over a tree's root system, to enhance root and tree growth. The objective of mulching is to recreate the conditions found in undisturbed, natural woodlands. All trees should be mulched regularly unless nature provides it.

The main reasons for mulching are:

to improve soil moisture retention
to improve soil structure by reducing compaction and allowing aggregates to form
to enhance beneficial microbes and soil macro-fauna biodiversity (bugs & worms)
to protect roots from extreme heat and cold
to return nutrients to the soil for plant uptake
to reduce runoff and erosion

4.11 Basic Mulching Guidelines

- Use organic materials such as aged wood chips, leaves, and compost; avoid grass clippings, fir bark, and inorganic materials like plastic and rocks.
- For newly planted trees, mulch the area out to the dripline of the tree.
- For established trees, mulch out to the drip line or as far out as practical. Completely remove underlying turf before mulching. This also can be accomplished by sheet-mulching. Sheet mulching is the practice of laying down "sheets" of cardboard, burlap, newspaper or any other material that will bio-degrade over time underneath a layer of organic mulch.
- Spread mulch in an even layer, 4-6 inches in depth; do not mound the mulch around the tree trunk.
- Keep mulch at least 3 inches away from the tree trunk to avoid creating favorable conditions for disease and insect infestation.
- Mulch twice per year if possible, in late spring and/or in fall as leaves drop.
- Do not use string weed trimmers around the base of trees to remove weeds within mulch beds. Trimmers damage bark and cambium at ground level, which diminishes tree health. Hand pull weeds. Avoid the use of contact herbicides.

4.2 Watering and Irrigation

In this era of diminishing resources, the ultimate goal for irrigation is to eliminate supplemental watering. The reality is that even the most drought tolerant species, well-mulched, require a period of watering to establish root systems and fend for themselves – typically 3 to 5 years. For a variety of reasons, we also sometimes use trees that aren't genetically adapted to our summer drought weather pattern. Without supplemental irrigation, such trees will either die or become stressed, stunted and susceptible to diseases and pests.

4.21 Basic Watering Guidelines

When watering is necessary, follow these basic guidelines:

- Water between 10 p.m. and 10 a.m. if possible. Early morning is best because winds are calmest, and the weaker morning sun will dry wet foliage without damage.
- Water less often with more water, rather than more often with smaller amounts of water. This practice encourages deep rooting. Except trees in containers, no established tree should need watering more than twice weekly.
- Apply water evenly throughout the outermost 75% of the CRZ (drip line).
- Do not directly spray water on tree trunks.
- Apply water slowly to avoid losing it as runoff outside the CRZ.
- Mature trees need approximately 1 inch of water every 3 - 4 weeks. In extreme drought or heat waves, look for signs of distress and water deeply, more often if needed.
- Over-watering can cause as many problems as insufficient watering and symptoms may look the same: wilting, yellowing, dropping leaves, dieback, but usually there is associated soggy soil.
- If you are unsure if your tree needs water, put your finger in the soil and see if it is dry deeper than 3 inches down. If so, water; if not, don't.
- Maintain organic mulch to retain moisture.

4.22 Newly Installed Trees

Newly installed trees, including drought tolerant and native species, are dependent upon supplemental irrigation until established, (3-5 years), but for a minimum of two years. Periods of extreme heat, wind or drought may require more or less water than recommended here. Amounts will vary, depending upon soil composition, heat, wind, rainfall, soil drainage characteristics, and type and extent of ground cover.

During the establishment period, water trees thoroughly to their full root depth as frequently as needed. Develop a schedule for dry months, prior to planting, as follows:

Tree Caliper (inches)	Gallons per Week
1	5
2	10
3	13
4	18
5	23

Alternatively, in the absence of adequate rainfall, apply 1 inch of water per week during the growing season, throughout the root zone of newly planted trees, damaged trees, or trees under stress. Brief Summer rains add little usable moisture to the ground.

4.23 Mature Trees

Established and mature native vegetation should not require watering unless changes have occurred within the tree's CRZ. Root impacts such as construction damage, grade changes, compaction, root cutting, or other disturbances to the root zone may necessitate watering to improve or maintain the health of the tree. Mature trees could become stressed due to periods of drought and subsequently require watering to sustain them.

Water should be applied over a period of time to thoroughly moisten the soil to a depth of 18 inches or more.

The amount needed depends on several factors, including plant species, current soil moisture, soil texture (sand, loam, clay), and drainage. The amount of air in the soil is as important as moisture. These must be kept in balance to ensure continued plant health.

If soil texture is sandy, trees will need to be watered more frequently than in clay soil. Clay soils have a high water-holding capacity and may only need water during very dry periods. If your soil is compacted, it will be more difficult for water to penetrate the soil and aeration may be necessary.

To determine the amount of water to apply to a tree's root zone:

- Calculate the radius of the CRZ
- Calculate the number of seconds it takes to fill a 5-gallon bucket of water with the hose or water delivery system you are using
- Match that time to the closest number of seconds listed in the following table
- For tree's CRZ radius (Step 1) check under this Delivery Rate column to find total application time required to water the tree
- These numbers assume that you are watering the outermost 75% of the CRZ
- This can represent a huge amount of water, take the time to figure accurately.

Approximate Watering Time to Apply One Inch of Water Across Critical Root Zone

Radius of CRZ (ft)	**Volume of Water (gals) to equal 1"**	**Total Application Time (minutes and hours) at a Delivery Rate of 5 Gallons Per x Seconds**				
	X =	**5 Sec**	**15 Sec**	**30 Sec**	**45 Sec**	**60 Sec**
10	147	3 min	7 min	15 min	22 min	30 min
15	330	6 min	17 min	33 min	50 min	1 hr
20	587	10 min	29 min	1hr	1 hr 30 min	2 hrs
25	917	15 min	46 min	1 hr 30 min	2 hrs 30 min	3 hrs
30	1,322	22 min	1 hr	2 hrs	3 hrs 30 min	4 hrs 30 min
35	1,799	30 min	1 hr 30 min	3 hrs	4 hrs 30 min	6 hrs
40	2,349	39 min	2 hrs	4 hrs	6 hrs	8 hrs
45	2,973	50 min	2 hr 30 min	5 hrs	7 hrs 30 min	10 hrs
50	3,670	1 hr	3 hrs	6 hrs	9 hrs	12 hrs

4.24 How and When to Water
A soaker hose is the best tool for properly watering trees. Position the hose at the dripline and let it run for 1 - 1 1/2 hours at a slow drip so the water has a chance to penetrate the soil. A standard garden hose can be used in place of a soaker hose. Turn the hose on to a slow trickle and set it under the canopy for 2 - 4 hours. Water a minimum of four sites around the tree and out to at least the dripline. Watering should take place during the dry months of the year, historically July-October. Annual weather variations may alter this range.

4.25 Mitigation for Drought Stress
If for some reason watering doesn't occur when needed, make up the deficit as soon as possible by irrigating sufficiently to wet the soil within the CRZ (or on a construction site, the TPZ) to a depth of 18-inches or more. More aggressive options include sub-surface irrigation at regular specified intervals by injecting on approximate 3-foot centers, 10-gallons of water per inch trunk diameter within the TPZ. Apply water slowly to avoid runoff outside of the CRZ. Duration should be until October rains, unless specified otherwise by local authorities or a project arborist. Don't forget to mulch trees to reduce the volume of water required.

4.26 Mitigation for Excess Soil Moisture
Construction on- or off your property can result in excess surface moisture collecting around valued trees. Such changes can stress or put a tree into decline. More water is not always better, especially for long-established trees used to a particular environment. Take measures to prevent or alleviate excess water saturation and sedimentation within a retained tree(s) TPZ due to site construction activity. If a tree's adjacent grade exceeds 8% (23 degrees), silt barriers can be installed outside the TPZ to prevent excessive soil saturation, siltation and/or erosion within the TPZ. Divert water from low-lying areas of trees where it could pool for long periods and stifle roots. Some trees can survive periods of soil saturation, but others cannot. Acceptable levels of saturation vary with tree species, soil type, time of year and the pre-construction growing environment.

4.3 Fertilization
Do not apply fertilizer to newly planted trees, and avoid mixing additives into backfill soil. For established trees in managed landscapes, place 2 -3" of aged manure or compost to tree CRZ and on beds once a year at most, in spring or fall. Unless soil tests indicate deficiencies, a tree should need no further supplemental fertilizer applications. In nature, trees recycle the nutrients they need through leaf and decaying wood returning nutrients to the soil.

When applying fertilizer based upon recommendations resulting from a soil test, use the following guidelines:

- Apply fertilizer when the roots are actively growing--late winter, early spring, and early summer
- Use slow release organic fertilizers with a salt index of less than 50
- Apply fertilizer to the CRZ of trees, from the trunk to the dripline
- For surface applications do not incorporate or till fertilizers into the topsoil
- Apply sub-surface applications of fertilizer where turf or groundcover exists, or where runoff is likely
- Make sub-surface applications of fertilizer 4-12 inches deep, in holes that are 2-4 inches in diameter and spaced 12 to 36 inches apart
- Follow recommended application rates: more is not better, and may pollute the groundwater

4.4 Pruning

For trees in managed landscapes, the most compelling reason to prune is to develop a strong, safe tree structure, or to correct significant defects or damage. Generally, no more than one fourth (25 percent) of the tree's functioning leaf and stem area should be removed within one calendar year. An arborist certified by the International Society of Arboriculture, or supervised by an ISA certified arborist should complete pruning. It should conform to the current American National Standard for Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Pruning), ANSI A300 (2001).

- Excessive Pruning (over 25%) is prohibited except for clearance pruning of overhead electrical utility lines, for traffic safety, or to abate a public nuisance
- Topping is prohibited, unless approved by an ISA Certified Arborist. There may be special cases when it is better to remove large portions of a tree rather than remove it totally.

4.41 Pruning Young Trees

Early structural pruning is a proven, cost-effective measure to improve life expectancy. Added benefits are safer trees with fewer branch failures. Prune newly planted and young trees as follows:

- Newly planted trees should only receive minor pruning to remove dead wood and branches damaged during transport and planting
- Prune in successive years to provide sidewalk and street clearance, improve the branch structure and maintain central leaders
- No more than 25% of foliage should be removed during a growing season

4.42 Pruning Mature Trees

There are seven types of pruning that may be required for use on mature trees. Prior to entering the tree, the tree worker is required to be familiar with these types of pruning as stated in the Performance Standards of the current ANSI A300 (2001).

Types of pruning include:

- **Crown Cleaning**: selective pruning to remove one or more of the following parts: dead, diseased, and/or broken branches
- **Crown Thinning**: removal of watersprouts and dead, dying, diseased, crossing, and hazardous branches from a tree
- **Crown Raising**: lower branches are removed, thus raising the overall height of the crown from the ground
- **Crown Restoration**: restoring the natural growth habit of a tree that has been topped or damaged in any other way
- **Crown Reduction**: reducing the height or spread of a tree by performing appropriate pruning cuts
- **Utility Pruning**: pruning around or near utility facilities with the object of maintaining safe and reliable utility service
- **Re-trenchment**: pruning that reduces the canopy size of old declining trees to enhance and prolong realized tree benefits.

Climbing and pruning practices should not injure the tree except for necessary pruning cuts; ascent into the canopy should be by rope. Climbing spikes (gaffs) should never be used unless the tree is identified for removal.

4.43 Root Pruning
Protecting tree roots during construction is a primary goal. If tree roots ***are*** exposed during excavation:

- They must be cut cleanly with sharp hand tools. Preserve the root bark ridge (similar in structure and function to branch bark ridge).
- Use hand pruners, loppers and/or an appropriate handsaw. **Do not** apply wound dressings, as this retains moisture and can encourage decay.
- Directional Root Pruning is the recommended technique, combined with hand excavation around tree roots. With Directional Root Pruning, objectionable and severely injured roots are properly cut to a lateral root that is growing downward or in a favorable direction.
- The project arborist or City Arborist should review the removal or cutting of roots greater than **2 inches in diameter**. The recommended review ensures that the stability and health of the tree is assessed.
- If soil and or sub-grade material must be removed from the CRZ, complete by hand excavation, air spade, or water and suction device.
- If backhoe excavation is implemented, over-burden removal should be conducted with the bucket facing the tree(s) and soil removal should be pulled back toward the backhoe or small excavator.
- Don't leave the CRZ exposed overnight. If exposure is to occur, then wet burlap or mulch should be applied temporarily.

4.5 Plant Health Care
Generally, insect populations do not threaten tree health to the point of mortality. More often, when their populations become too great they create a nuisance. If a tree is stressed due to other circumstances, pests can defoliate and severely damage a tree. If action is warranted, **Integrated Pest Management (IPM)** suggests that the pest source be identified and targeted with a specific and timely treatment. To preserve an ailing tree, property owners should implement the following guidelines and treat the problem in a timely fashion to prevent further deterioration of the tree.

4.51 Insect Control
One of the most common and detrimental mistakes made by owners and landscape maintainers is the unwarranted use of pesticides and herbicides. Use the IPM method to diagnose and decide upon an appropriate response. If chemical controls are called for, consult a pest control operator licensed by the Washington State Department of Agriculture (Chapter 17.21 RCW). A licensed applicator should be employed. Nontoxic materials should be used whenever possible to control damaging insects.

4.52 Disease and Decay – above ground
Disease that erodes the health or weakens the structure of a protected or designated tree may compromise the safety of people or property. A Tree Professional should be contacted for diagnosis and remedy options. (See Section 5 for tree risk management.)

4.53 Disease – below ground

Soil borne diseases, such as root rot (*Phytophthora*, *Verticillium, Armillaria*, etc.) are present in this area's soils. Often, a poor landscape design encourages harmful, and often lethal, diseases in surrounding, old trees.

Avoid the following conditions that tend to favor a diseased root environment:

- compacting the soil within a tree's dripline
- adding fill dirt
- roto-tilling within the drip line
- trenching and removing soil from the tree root area
- excessive or regular watering on or near the tree trunk area
- planting incompatible water-loving plants within the tree's drip line

Combined with poorly-drained soil, these factors can activate normally dormant fungi that in turn may infect the tree, precipitating the decline and potential death of the tree. This decline can be slow and may not be evident for many years.

4.54 Diagnosing Health Issues; Biotic, Abiotic & Environmental

When planning landscaping around a protected or designated tree, an evaluation of the tree and soil should be performed to determine if a disease is present. If the tree is diseased and landscaping will contribute to decline, permanently damage, or render the tree hazardous, it is the obligation of the property owner to take reasonable measures to reduce or eliminate the conditions that may cause the decline of the protected or designated tree.

To identify cultural conditions that may lead to diseases such as *Verticillium* or *Phytophthora* or other soil borne fungi, consult with a plant health care specialist or Tree Professional.

Plants selected for use under established native trees should not need water more than once a month. Use a drip system to irrigate within the critical root zone of the established tree so that runoff does not flood the area. Procure plant material from a reputable source, to improve odds that new plants will be disease free. Sometimes landscape plants introduce serious pathogens that are hard to control, notably Phytophthora.

4.56 Diagnostic Techniques & Applications

The health and the safety of a tree are two distinct and separate functional characteristics. A vigorous and healthy tree may not necessarily be of sound wood or structure. To remove a protected or City-owned tree, it must first be evaluated and the tree determined to be "hazardous" By a qualified professional.

SECTION 5: TREE RISK MANAGEMENT

Overview

Trees provide a multitude of benefits to the people living and working in their proximity. They have ecological and sociological importance as well as documented aesthetic and economic impacts. These benefits are understood to increase with size and age of the tree. In contrast to this fact, trees also become more likely to shed limbs or experience structural failures as they age, and the consequences of these failures can increase with age and size as well. Because trees are living, dynamic organisms it is impossible to maintain trees that are free of risk and reap their benefits. Given this, we must be ready to accept some degree of risk to experience the benefits that trees provide to our built and natural environments. A successful tree risk management regime aims to maximize tree benefits in our community while minimizing tree risk. The interplay between these values may shift over time as our forest ages and deals with increased pressure from climate changes, pests, wildfire, and increased development.

Thus, the tree risk manager should attempt to balance the risks that a tree poses with the benefits it provides to individuals and communities. To assist in this task tree owners should engage a Tree Risk Assessment Qualified (TRAQ) professional to perform a Tree Risk Assessment (TRA).

A Tree Risk Assessment(TRA) is a systematic process used to identify, analyze, and evaluate tree risk. Risk is assessed by categorizing or quantifying both the likelihood and the severity of a the failure. A complete Tree Risk Assessment report should identify the risk level and make recommendations for reducing the risk.

A hazard is widely defined as ‘A likely source of harm’. In relation to trees, a hazard is the tree part or parts that might fail and are likely sources of harm. An entire tree can be considered hazardous when it has been assessed and found to be likely to fail and cause an unacceptable degree of injury, damage, or disruption, or rather that it rates as high or extreme risk

The City of Bainbridge Island Municipal Code defines a Hazard Tree as:

The degree to which a tree is hazardous hinges on three factors:

- The Likelihood of Failure
- The Likelihood of Impacting the Target
- The Consequences of that Failure

In short, hazard designation requires both a tree defect and a proximate target. A giant tree collapsing in a remote forest poses negligible risk, while a single limb dropping on a busy street could cause tragedy. The level of potential risk depends on the size of the part likely to fail (whole tree or a part,) and the frequency that a target is present & occupied.

Three important things to keep in mind:

There are many options for reducing tree risk to acceptable levels without removing the whole tree.

Tree Risk Assessment should never be used as an excuse to remove trees that are healthy and ‘safe’.

All trees pose some degree of risk.

5.1 Responsibility

On private property, the property owner bears responsibility to mitigate or abate a tree with a known hazardous condition. Trees on City property that may be a public safety hazard should be reported to the City of Bainbridge Island, Department of Public Works for an assessment of risk by the City Arborist. Trees of concern on state property should be reported to the respective agency (WA DOT, Parks, etc.).

5.2 Recognizing Tree Risk

Determining whether a tree's defect constitutes a condition that makes it an imminent hazard requires a high degree of knowledge and expertise. In the case of a protected or designated tree, only a qualified tree professional who is familiar with tree physiology, can interpret external signs of weakness, can perform internal checks if necessary, and make recommendations for risk reduction should perform hazard assessment. Hiring a Tree Risk Assessment Qualified (TRAQ) arborist is the best way to be sure your assessor is properly trained. (see Appendix: Arborists – What you Need to Know)

5.3. Managing Public Tree Risk

The City of Bainbridge manages thousands of trees in the public right of way and on City-owned property. The two ***basic tools for proactive public tree management are*** a ***recurrent*** r***isk*** a***ssessment regime and*** guidelines for risk tolerance. Creating and putting these tools to use requires a long-range commitment to public safety and community forest health.

5.4 Establishing a Recurrent Risk Assessment Regime

A baseline tree evaluation system should be developed in planning sessions before evaluations are conducted. The following represents a suggested approach toward developing a hazard tree detection and correction program for public property.

5.41 Stratify City Owned Property into Risk Zones on a Map

Low risk areas such as woods, open fields or areas with trees and low foot traffic and no built structures, as well as roads leading into such areas.

Moderate risk areas, such as open space with trail systems, open picnic areas without fixed picnic tables, etc.

High risk areas, such as streets, arterials, developed parks, municipal facilities, and other structures, parking lots, bus stops, and any other places where people might congregate.

5.42 Recurrent Site Assessments

Timing and frequency of assessments may vary, but developed sites should be evaluated for new evidence of hazardous trees at minimum every 3 to 5 years. In addition to this minimum screening, sites should be examined after major storm occurrences once the severe weather has passed.

Carry out site assessments systematically. They normally consist of a level 1 assessment of the risk zones, where each tree and all areas of the developed site are observed for new evidence of hazard or defect. Examine all trees within striking range of a target, either fixed (play structure) or transitory (swim beach).

Generally, only trees greater than 6 inches in diameter at breast height (DBH, 4.5' above grade) should be examined. Smaller trees cause little damage and are considerably less prone to failure under most conditions. Under certain circumstances, trees less than 6 inches in diameter may require periodic inspection if their proximity to a particularly sensitive target (a target that likely would be damaged by impact) suggests unacceptable hazard, but this is an exception.

5.43 Guidelines for Tree Removal & Retention
When annual or storm-related site examination identifies trees of concern, these must be assessed individually for risk by a Tree Professional, using standard TRAQ protocols. This evaluation provides the basis for "risk abatement" actions, which may entail removing defective part(s), moving a target, or partial or full tree removal. Proceed with risk assessment and prescribed remedies as promptly as possible to minimize liability and public endangerment. In the case of a high-value tree, a second professional evaluation may be warranted if removal has been recommended and time allows.

5.5 Risk Reduction

5.51 Pruning
When the primary objective is to reduce the danger to a specific target caused by visibly defined hazards in a tree, the property owner, manager and/or ISA-certified tree care contractor must choose an appropriate pruning type. Pruning for risk reduction should consist of one or more of the maintenance types described in the American National Standards Institute's Pruning standards: crown cleaning, crown raising, crown reduction, crown restoration. (See Section 4.4 Pruning for details)

5.52 Wildlife Snags
Creation of wildlife snags or "habitat trees" is another risk abatement option. If a tree is dead or dying, a habitat snag can be an excellent alternative to full removal. Choose an appropriate height for the site conditions and monitor the snag as it decays. Created snags add important habitat for microbes all the way up the food chain. While not suitable for developed, high use locations, Bainbridge Island offers many good locations for snag retention.
(see Appendix: Wildlife Snag Specifications)

5.53 Cabling, Guying, and Bracing
Occasionally a hazard can be adequately mitigated by artificially supporting the tree or tree part by connecting it back other healthy trees, tree parts or the ground. This is a strategy primarily used to protect large sections of high value trees that have natural structural deformities (co-dominant stems, over extended limbs etc.) that are of concern. This type of mitigation is generally inappropriate for trees with advanced rot or displaying physical wounds that are expected to deteriorate.

5.54 Tree Removal and Replacement
Limitations may exist on the removal or care of trees within certain regulated areas. For example, a regulated tree may not be removed without City review and approval. Therefore, a first step would be to verify that the removal is allowed under City law, by applying for a clearing permit and researching replacement requirements. Trees removed in violation of City law must be replaced by the property owner or, in the case of street trees, the developer. (Removal and replacement standards for public trees are included in the Appendix.)

To remove a protected or designated tree that has been confirmed as hazardous, as defined by the City of Bainbridge Island Municipal Code, a letter addressing the condition of the tree is required from an Arborist. Submission of a replanting plan may also be required, following review by City staff. This approval document must be available on site before the tree is removed, unless emergency conditions exist.

5.7 Public Tree Replacement Criteria
When a public tree is removed, it should be replaced on a minimum 1:1 basis in the next available planting season, since canopy equivalent to that loss will take years to grow. This ensures the continuation of the ecosystem service that the trees provide. Bainbridge Island's Community Forest Management Plan addresses expected population growth by establishing canopy cover goals by zone. In the Winslow Core and the MUTC where density is concentrated, the loss of even a single tree matters. Private citizens are also encouraged to replant or contribute time or funds toward tree replenishment on public sites instead. Contact the City Department of Planning and Community Development for suitable options.

5.71 Public Tree Replacement Considerations

Budget Considerations

Develop a realistic budget covering the "life cycle cost" of added trees, including
Purchase of planting stock,
Site preparation (removal of existing trees, installation, landscape amenities such as grates)
Establishment care (watering, weeding, pruning, monitoring, etc.)
Ongoing maintenance (watering, fertilizer, mulch, pruning, etc.)
Administrative costs

Site Review & Planning

Review available growing space
Planting strip width, cut outs, behind sidewalk or curb, etc.
Underground utilities
Competition from existing plant roots
Suitability of soil (compaction, toxins, drainage issues, etc.)

Review Above Ground Site Constraints

Utility lines
Utility poles, traffic lights, street lights, security lights
Signs (public or private)
Awnings
Building structure (surrounding hardscape)
Vehicular and pedestrian clearance
Existing vegetation (trees and shrubs)

Standards Compliance

ADA Standards,
Other City requirements and standards.

Site Design/Streetscape

Long-term viability or size at maturity
Stormwater mitigation potential and other ecological function
Suitability for “complete streets” that combine various functions including bicycles, pedestrians, utilities, etc.

Selection of Tree Species

Aesthetic design
Existing trees’ condition and character

5.8 Designated Hazard Tree Forms

The ISA adopted the most current Tree Risk Assessment Qualification (TRAQ) process in 2017, and this approach is now considered the present Standard of Care. This method provides assessors a structured process, based on good science and arboriculture, to assign recommended thresholds for action for the purpose of informing risk managers.
The risk rating is determined by categorizing the likelihood of failure potential, the likelihood of impacting the target, and the consequences of that failure in a set of matrices.

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impact			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

The **Likelihood of Failure** is assigned one of four categories based on the judgment of the Assessor.

Improbable – The defect is not likely to lead to failure and no further action is required. In many cases these defects might not even be recorded.

Possible – One or more defects that are well established but would typically not lead to failure for several years. Corrective action might be useful to prevent future problems but only if time and money are available. Not the highest priority for action, these are the "retain and monitor" situations that can be used to inform budget and work schedules for subsequent years.

Probable – One or more defects areas well-established, but not yet deemed to be a high priority issue. Additional testing may be required or, the assessor may feel the problems are not serious enough to warrant immediate action, but do warrant placing the tree on a list of trees to be inspected more regularly. These are Retain and Monitor trees.

Imminent – The defect is serious and imminent failure is likely and corrective action is required immediately. These cases require treatment within the next few days or weeks. Often failure has already begun.

The **Likelihood of Impacting the Target** is categorized as Very Low, Low, Medium, or High.

Very Low – The target is at the edge of the possible strike zone or only comprises an extremely small portion of that zone, or is only within the strike zone for a short duration.

Low – The target has less that a 50% chance of being struck by the expected failure

Medium – The target has about a 50/50 chance of being struck

High – The Target has more than a 50% chance of being struck in the event of failure

The **Consequences of Failure** is categorized based on the following target descriptions.

Negligible – If the part were to fail and strike the target the expected damage or disruption could be easily repaired in an hour or two, this also includes minor injuries that require no first aid (bruise or scratch), and minor disruptions that impact neighborhood streets, and open space.

Minor – If the part were to fail and strike the target the expected damage could be repaired in a day or two, this also includes minor injuries that typically do not require attention from a medical professional, and neighborhood level disruption of individual services.

Significant – If the part were to fail and strike the target the expected damage would be substantial personal injury or moderate to high value property damage. This includes injuries that require medical care, or disruptions to primary powerlines or arterial streets.

Severe – If the part were to fail and strike the target the expected damage would be serious personal injury or death or high-value property damage. Disruptions to regional or critical infrastructure would be considered severe.

5.81 Options for Mitigation of Risk Trees include

Remove the Risk by cutting off one or more branches, removing dead wood, or possibly removing the entire tree. Extreme risk rating situations should be closed off until the risk is abated.

Modify the Risk of Failure In some cases it may be possible to reduce the probability of failure by adding mechanical support in the form of cables braces or props. Strategic pruning can also decrease the loads experienced by identified defects and reduce the likelihood of failure

Modify the Risk of Impact by moving the target. Risk ratings can sometimes be lowered by moving the target so that there is a much lower probability of the defective part striking anything.

Retain and monitor. This approach is used where some defects have been noted but they are not yet serious, and the present risk level is Moderate or Low.

CHAPTER 6- BMP's FOR SPECIFIC LAND USES & LANDSCAPE TYPES

Overview

In this section, we address several specific environments and discuss how to tap the opportunities each presents for preserving and adding trees. It is worth recounting that our *green infrastructure* accomplishes the following:

- cleanses the air by consuming carbon dioxide and producing oxygen
- buffers noise, dust, fumes, wind and glare
- intercepts rainwater and dispersing it more slowly into the ground
- shelters wildlife and protects native biodiversity
- creates calm settings to rejuvenate and relax
- creates a pleasant and comfortable sidewalk environment
- shades street pavement, increasing its useful life
- screens the view of parking lots and utility areas from public streets
- encourages safe driving with street trees and planting islands
- builds civic pride by enhancing the beauty of public thoroughfares
- increases aesthetic and monetary value of property
- shelters buildings from summer heat and winter chill
- buffers extremes of precipitation and heat accompanying climate change

Tree care is the property owner's responsibility, including the city for trees within the right-of-way or on city-owned property. Most island residents are responsible for the care and protection of some portion of our community forest. Some willingly shoulder extra responsibility as community volunteers.

Common threads you will find running through these recommendations are to:

- Save the best of what you have, evaluating existing trees, using careful site design, and following the principles of "Low Impact Development."
- Understand specific characteristics and limitations of sites when choosing trees.
- Take good care of trees, knowing and embracing the role(s) you play.

6.1 Parking Lots

Parking lots have long been recognized as thermal "hot spots", as well as collectors of significant storm-water runoff and associated pollutants. Trees growing in parking lots within commercial, industrial, and residential land use areas help to offset some of the many negative aspects of these sites. A parking lot is one of the few places where species with wide canopies can be allowed to grow and spread to full maturity.

Parking lots are not, however, a healthy environment for trees. Just picture how many times you have opened a car door onto the trunk of a struggling specimen tree or watched a busy shopper jam the grocery cart into a tree trunk. Successful conservation, planting and maintenance of trees in parking lots depends on providing adequate soil volume, water, nutrients and protection.

Tree species planted or retained in parking lots should be:

- selected to provide abundant shade
- tolerant of heat and pollution, and often, compaction and drought
- effective at intercepting, evaporating, storing and conveying rainwater, enhancing infiltration and reducing erosion
- free of structural, pest or disease problems, aggressive roots and fruits or nuts
- protected to provide optimal opportunity for healthy growth

Certain design features are encouraged, where feasible:

- Continuous planting islands, to accommodate multiple tree and increase the soil volume available to roots
- Planting islands that serve double-duty by incorporating surface water runoff treatments such as bio-swales and rain gardens in their design
- The use of structural soil mixes, which increase rootable soil volume and reduce the potential for root invasion into parking lot paving. (Appendix F)
- Incorporating understory plantings to shade and protect roots; prickly low shrubs discourage cut-through foot traffic better than groundcovers

6.11 Drainage / Water Quality Options

With early planning and design, it is possible for tree planting requirements to meet regulations for on-site treatment of stormwater. Trees planted within stormwater runoff areas should be limited to species adapted to heavy to moderate irrigation, such as riparian species (see Appendix).

6.12 Best Management Practices for Parking Lots

1. Integrate bio-retention into parking lot islands or planter strips distributed throughout the parking area in the forms of swales or linear shallow depressions
2. Utilize the opportunity to choose a species that will be big and spreading when mature. Plant one large canopy tree (>40') for every seven (7) parking spaces in parking lots
3. Select trees that can withstand the hot, dry microclimates and poor soil conditions of parking lots
4. Use Silva Cells (an underground frame) or a structural soil mix beneath pavement to increase the volume of soil available to tree roots
5. Group trees in islands so they can share rooting space.
6. Provide a required minimum open soil surface area for very small, small, medium, and large trees of 25, 100, 225, and 400 square feet respectively
7. Use pervious pavements to increase the moisture penetration and gas exchange for tree roots
8. The maximum distance between trees in linear tree islands should be 30 feet unless they are a species that will require more space.
9. Tree planting islands should have a minimum width of 12 feet
10. Maintain sight lines so motorists can see pedestrians and other vehicles, through proper tree selection and regular appropriate pruning

11. A clearing permit may be required from the City of Bainbridge Island to remove parking lot shade or ornamental trees if those trees had been required for retention through a land use permit. At this time, there is no cost associated with obtaining these permits
12. All pruning work shall be completed pursuant to the current International Society of Arboriculture (ISA) and American National Standards Institute (ANSI) standards
13. Removed trees must be replaced with healthy specimens of similar species and size
14. Maintain an 8-foot minimum height to branching for vehicular and pedestrian clearance
15. Provide curbs or wheel-stops around tree planting areas and plant trees at least 30-inches (2.5 feet) inside the curb or wheel-stop to avoid vehicle injury to the trees
16. Provide designated paths through planting areas that follow "desire lines" to prevent soil compaction by foot traffic.
17. Irrigate tree islands to ensure new tree survival and improve long-term tree health
18. Incorporate understory plantings to shade and protect roots, and prickly low shrubs to discourage cut-through foot traffic better than groundcovers

6.2 Plazas, Courtyards and Winslow Core Areas including Street Trees

Plazas, Courtyards and Core Areas are places where people gather to work, shop, eat, meet, and relax. They are found predominantly within commercial, institutional, and dense residential areas.

Growing space for trees in these areas is limited. The majority of trees are planted, as opposed to conserved, and usually grown as single trees. Trees are often arranged in a linear or rectangular grouping and planted in small tree wells (4 x 4 feet) or infrequently, larger landscape islands.

These settings are characterized by an abundance of impervious pavement, poor quality soil, inadequate soil volumes, close proximity to buildings and streets, air pollution, and high levels of human activity. They are also appropriate for the integration of ideas put forward in the Bainbridge Island Arts Plan.

6.21 Best Management Practices for Plazas, Courtyards and Winslow Core

1. Match the mature size of trees selected to the amount of available growing space
2. Select trees to enhance architectural design, without blocking important building or structural detailing
3. Plant trees where limbs will not impede access for delivery or emergency vehicles, pedestrian circulation, or sight lines
4. Don't assume that site conditions are the same throughout a plaza; plazas can have dramatic changes in temperatures from one side to another due to microclimatic conditions created by surrounding buildings

5. Use alternative (permeable or open) paving systems that accommodate pedestrians and vehicles while increasing opportunities for moisture and air to reach tree roots
6. Use structural soils beneath the pavement and innovative design to increase the volume of soil available to tree roots
7. Locate trees where underground utilities and compacted soils won't constrict the available area for tree roots
8. Look above for overhead utilities that will limit mature tree size

~~9.~~ Protect trees from vandalism or other damage by pruning and protecting with sturdy fencing

10. Budget for increased tree maintenance costs in downtown "high contact" areas, to ensure new tree survival and long-term health; include irrigation and pruning to maintain pedestrian and vehicular clearance

6.22 Street Trees and Road Frontage Areas-- (*Please refer to the "City of Bainbridge Island Civic and Street Tree Plan" for specific information)*

Road Frontage Areas consist of public rights-of-way (including streets, alleyways, circles and medians) and immediately adjacent land in residential, commercial, institutional, industrial, and agricultural zones. Frontage areas include both street trees and adjoining yard trees that are part of a property's landscape design and function. These trees may be planted ornamentals, or pre-existing vegetation like native woods. Street trees are found growing both singly (most often) and in groups.

Removal and replacement of trees that damage city sidewalks or other city infrastructure shall be reviewed by the City Arborist prior to tree removal. The City encourages the use of creative alternatives that favor tree protection, such as "bump-outs" and rubber sidewalks that allow for tree root expansion.

6.23 Best Management Practices for Road Frontage Areas

1. Plant trees where there is adequate overhead and underground room to accommodate their mature size
2. Vary the spacing and species of trees along road rights-of-way to add interest and diversity to roadway plantings. In appropriate locations, evergreen trees should be considered in order to provide year-round foliage, as long as they comply with infrastructure and sight line restrictions
3. Maintain sight lines so drivers can see pedestrians and vehicles when pulling out of driveways or through intersections. Plant trees and hedges a minimum of 15 feet from driveways and 15 feet down each lot line on corner locations from road intersections for minor collectors. For major collectors and arterials, the distance will be greater to accommodate faster speeds
4. Provide 15 feet of vertical clearance for large vehicles along tree-lined streets and drives
5. Provide at least 8 feet of vertical clearance for pedestrians and bicycles, to avoid hazards created by low branches too close to sidewalks and drives

6. Avoid over-thinning natural stands of trees in or by road frontages, to reduce susceptibility to wind damage and failure
7. Bump out planting strips or jog sidewalks to accommodate tree trunk and root growth where necessary
8. In order to avoid damaging tree roots, tunnel or bore instead of trenching during utility line installation
9. Allow special consideration for designated Heritage trees that may be in right of way areas
10. Avoid planting trees directly over property lines or corners
11. Tree lawns (Planting strips) – the planting area between the sidewalk and curb – should be a minimum of 5 feet wide
12. Install root barriers along sidewalks and curbs to prevent tree roots from heaving and breaking pavers, sidewalks curbs, and road pavement. Other alternatives include load-bearing soil (developed by Cornell University—see appendix), rubber sidewalks or other innovative material that does not crack from root growth
13. Where the sidewalk is directly adjacent or very close to the street, plant trees behind the sidewalk. If necessary utilize private property tree planting easements to provide growing space and vehicular and pedestrian clearance

6.3 Utility Corridors and Easements

Utility corridors are linear landscape areas that contain power, gas, water, or sewer service. These corridors can be as narrow as 20 feet or as wide as 150 feet. They often run parallel to roadways, and contain above and/or below ground lines. Within these corridors, vegetation must be managed to allow safe maintenance and repair of the utilities. These long, narrow bands create continuous vegetation ‘edges’ that actually can improve ecological function. Wildlife is attracted to forest edges for food, nesting and protective cover, as well as to adjacent open areas to forage. The down side of exposed edges is their vulnerability to invasive plants, which can move in from any side.

6.31 Best Management Practices for Utility Corridors

1. Avoid trees with aggressive or damaging root systems near underground water and sewer lines. (See Appendix for recommended trees list.)
2. Plant only small-maturing trees beneath overhead electrical lines to minimize “topping” needed for future line clearance.
3. Maintain adequate clearance from all overhead and underground utility lines to facilitate access for repairs and minimize impacts to tree canopies and roots.
4. Plant medium sized trees at least 20 feet off the centerline of overhead electrical distribution lines.
5. Plant large sized trees at least 40 feet off the centerline from overhead electrical distribution lines.
6. When trees are pruned within overhead utility line maintenance zones, adhere to Best Management Practices for Utility Pruning of Trees [companion publication to the current ANSI A300 Part 1. Shrub, and Other Woody Plant Maintenance-

Standard Practices, (Pruning). Only specially-trained arborists should perform tree work near live electrical lines.

7. Employ crown reduction pruning rather than tree "topping" to reduce tree size beneath utility lines.
8. Tunnel instead of trenching beneath tree roots within the CRZ for installation or repair of cable, phone, electric, gas, water, or sewer lines.
9. Never use spikes to climb trees during overhead utility line maintenance, installation or repair. Exemptions include tree removal or emergency situations, such as storm work and worker rescue situations.
10. Annually monitor edges for invasive plant infestations and remove or limit encroachments before they penetrate to interior of corridor

6.4 Residential Lots

Although the potential for large canopied trees is limited in urban core areas, trees remain an important part of residential landscapes. Their value as "green infrastructure" is so great from a storm water management standpoint, that many communities credit homeowners on utility bills for choosing tree canopy rather than increased impervious surface.

In suburban and rural lots, especially where new houses are built on wooded tracts of land, property owners should embrace the opportunity to practice enlightened site design early in the planning process. Consideration of tree protection and healthy soils can result in the preservation of promising young and mature native trees, that buffer roads, provide screening and habitat value, and reduce the visual intrusiveness of large new buildings. Rainwater mitigated on site can reduce the costs of below-grade storm water drainage systems.

6.41 Best Management Practices for Residential Lots

Assess the existing vegetation and plan new construction or additions to save as many high quality existing trees as possible.

1. Evaluate your yard for above- and below-ground conflicts: utilities, soil type, buildings, view, shade, sun, other trees, and safety
2. Plant trees only where there is adequate room both overhead and underground for the mature size of the tree you are planting
3. Avoid planting trees directly over, or too close to, property lines or corners.
4. Identify tree priorities—whether for beauty, wildlife habitat, shade, windscreen or a visual buffer
5. Consider the maintenance needs of the tree you choose by matching the preferences of the tree (i.e., drought tolerant, likes "wet feet") with the site conditions.. Can the tree prosper in our Pacific Northwest climate without extensive care throughout its life?
6. Plant native species, which, if chosen wisely and sited appropriately for their microclimate, can reduce the need for ongoing care (i.e. irrigation) after establishment

7. Where room allows, install an informal hedgerow to replace a fence or laurel hedge. Hedgerows are mixed plantings that create habitat for birds, reduce hedge-pruning chores, and add seasonal interest – all while providing screening. A hedgerow should be at least 6 feet wide, but is much more valuable to wildlife if it is wider. Mixed hardwoods and conifers add significantly to the diversity of wildlife that will use the hedgerow. Plant shrubs and trees about 3 feet on center. Try to avoid breaks or openings in the hedgerow — these spaces are hazardous for many hedgerow dwellers, allowing easier access for larger predators. Native hedgerow species may include:

Red alder	Oregon grape	Elderberry
Douglas fir	Salal	Nootka rose
Western red cedar	Snowberry	Serviceberry
Vine maple	Ceanothus	Blueberry
Bigleaf maple	Red osier dogwood	Huckleberry
Willow	Red flowering currant	Salmonberry
Oregon white oak		

6.5 Institutional Campuses

Typical examples of institutional campuses found across the island are schools, churches, and health facilities. Larger tracts of land associated with institutions provide valuable opportunities for tree planting and preservation. By virtue of their size, they can preserve remnant forests that provide a link to Bainbridge Island's wooded past. They also allow for planting of large new specimen trees and groves of trees and understory.

The Bainbridge City Hall, Bainbridge Performing Arts Center and Island History Museum located between Madison and Erickson Avenues make up the main downtown Civic Complex. A Tree Management Plan was completed for this campus in 2006, and is available at City Hall. Private developments may also lend themselves to landscape-level planning for vegetation retention and planting.

6.51 Best Management Practices for Institutional Campuses

1. Inventory and assess the site's existing critical areas, flora and fauna to identify areas to protect and enhance as part of development or landscape improvements
2. Conduct a risk assessment of major trees every 5 years and after major storm events
3. Utilize native species in layered arrangements that echo the Island's forest communities
4. Create surface storm water handling systems such as rain gardens and swales
5. Configure pedestrian circulation to invite visual contact between people and plants, while protecting them from physical damage and disturbance
6. Concentrate buildings and associated pavement, to maximize green area on site
7. Select a wide variety of trees to maximize biodiversity; include unusual species to pique public interest and test out tree performance
8. Choose tree species offering ease of upkeep, durability and a range of seasonal effects

6.6 Open Spaces, Parks and Natural Areas

Open spaces and Natural areas include forests, large gardens, parks, agricultural areas, pasture land, lake and stream margins, beaches and natural preserves. These fulfill many positive and fundamental functions on Bainbridge Island. They provide large areas of un-compacted soil that absorb stormwater, greater tree canopy for intercepting and distributing rain, and provide habitat and movement corridors for wildlife. Furthermore, they offer opportunities for sports, recreation, education and other individual and social activities. Well-managed open spaces are a positive contributor to quality of life in developed areas of the Island.

6.61 Best Management Practices for Parks, Open Spaces and Natural Areas

1. Assess and inventory individual sites related to critical areas, flora and fauna
2. Determine specific site uses and contributions, and reinforce the positive contributions
3. Maintain or reclaim optimal ecological health of the site
4. Establish a maintenance management system for Open Spaces, Parks and Natural Areas

6.62 Maintenance Recommendations

- Remove or prune trees if they pose undue risk to people or property
- Remove invasive species of plants
- Replant areas with non-invasive, mostly native species
- Create wildlife snags and retain fallen woody debris to improve wildlife habitat
- Develop wayfinding and artist-designed interpretive signs
- Build volunteer stewardship partnerships with local civic, religious, school, youth, neighborhood and social organizations, or budget for private contracted maintenance
- Cooperate with municipal, county, and state government agencies for permitting and technical advice

6.63 Suggested Maintenance Management System

The following basic steps are recommended to maintain environmental diversity, health, and recreational use within Island open spaces and natural areas.

1. Familiarize stakeholders with BMP's and any applications before the Planning Department or other agencies. Gather comment on management concerns and opportunities.
2. Conduct onsite evaluation to define vegetative zones.
3. Determine management priorities.
4. Plan for restoration and ongoing maintenance according to vegetative zone:
   Determine and rank restoration and maintenance needs
   Determine and comply with permitting and regulations relating to work within open space and natural areas
   Remove exotic and invasive plant species in accord with recommended vegetation management techniques (see Section 6.9 and Appendices/References)
   Replant areas of disturbance and set up maintenance programs for newly established areas

Monitor and record replanting survival rates and invasive plant resurgence; replace lost plants and remove invasive weeds promptly
Monitor and record trees with significant defects located within striking distance of persons or property, annually and after severe storms
Monitor and record erosion or other significant changes to landscape features
Monitor and record health of vegetation annually; budgeting resources to take timely corrective action when monitoring indicates a threshold of need

5. Monitor security issues
   Increase volunteer presence for trail and vegetation maintenance projects,
   Add trail patrols
   Encourage recreational user awareness, appropriate use and communication
   Tap "eyes and ears" of property owners adjacent to public open space/ parks

6.7 Buffers and Greenbelts

Buffers are the linear areas that border roadways, adjacent properties, or dissimilar land uses. Critical Area Buffers are vegetated areas that protect fragile landscape elements in accordance with the State-mandated Critical Area Ordinance. These areas include steep slopes, , shorelines, slide zones, wetlands, and streams. Trees provide very effective buffers, either alone or with other vegetation. They may be planted in either groups or rows, and spaced uniformly or in irregular patterns. On Bainbridge Island, many buffers contain natural woodlands or remnant forest areas. Plantings that combine overstory trees, understory canopy, shrub, and herbaceous layers make effective buffers. Wherever possible, buffers should be designed and/or enhanced to provide multiple vegetative layers.

In some cases, buffers may be limited in width and therefore in the amount of growing space available for trees. In most cases, however, trees in buffer areas remain relatively undisturbed after they are established and usually have an ample amount of growing space.

6.71 Best Management Practices for Landscape Perimeter and Park and Conservation Land Buffers

1. Select low branching or multi-trunk species to provide visual and physical screening to the ground

2. Plant a variety of tree species and mature tree sizes

3. Include all vegetative layers in buffer planting. Consider creating mixed-species hedgerows as compact, wildlife-rich buffers

3. Incorporate trees with dense, evergreen foliage to provide screening year-round (especially native coniferous trees)

4. Select trees for their suitability to the existing topography, soils, infrastructure (utilities, roads), light, moisture conditions, and vegetation

5. Conserve existing undisturbed woodlands with understory trees and shrubs for high quality buffers where width allows – preferably 50 feet or more. Create woodland buffers where there is room to create a "feathered" canopy edge with lower foreground trees to help tame and deflect wind.

6. Be aware of the remnant forest 'New Edge' effect on wind firmness of retained trees. Newly exposed interior trees are at risk for windthrow or failure. A too narrow buffer of slender, interior-stand trees within striking distance of frequently-occupied targets (homes, parking lots, playgrounds, etc.) may pose a risk. If

necessary, consider enhancing the existing buffer or planting a new buffer that will mature into a multi-layered canopy with site-adapted, stable trees

7. Leave the soil, organic litter layer, and native groundcovers undisturbed
8. Plant trees in a staggered, naturalistic pattern, rather than in linear rows
9. Conserve at least the minimum undisturbed width of buffer required by the City Municipal Code

6.8 Riparian Zones and Drainage Areas

These areas are associated with streams, rivers, shorelines, and surface drainage-ways. They are characterized by wetlands, alluvial soils, high water tables, and periodic flooding. In many riparian zones, the topography includes a substantial slope from upland to lowland areas.

6.81 Best Management Practices for Riparian Zones and Drainage Areas

1. Review the City's Critical Areas Ordinance (BIMC 16.20), Shoreline Management Master Program (BIMC 16.12) and related State and Federal Codes
2. Retain, to the extent possible, existing woodlands with undisturbed understory trees, shrubs, herbaceous plants, leaf litter, and soil
3. Plant and conserve trees in mixed groups and stands
4. Select species that are adaptable to local soil conditions, whose root systems help prevent erosion (fibrous, non shallow-rooting habit)
5. Manage areas containing young trees to ensure development of valuable mature tree stands over time
6. Do not plant exotic species, as many are aggressive or have the ability to be transmitted easily along riparian corridors or shorelines
7. Plant trees and associated vegetation that can tolerate variable lowland or high water table conditions
8. Refer to Washington Department of Ecology manuals available on line that address vegetation management for steep slopes and stream corridors (see References)

6.9 Invasive Plant INFESTATIONS

Our community must be ever vigilant to the risks posed by noxious weeds and invasive exotic plants. These plants threaten the general ecological health and diversity of our native ecosystems on public and private lands throughout Bainbridge Island, including forests, parks, agricultural land, waterways, and developed landscapes. Guidance for protecting such areas may be found in Washington state noxious weed law, which acts to protect wildlife, property values, and public health and safety from the adverse impacts of invasive plant species. Kitsap County Weed Control Program provides monitoring and advice on controlling listed plants.

The key tools for noxious weed and invasive species management are: prevention, eradication and containment. For control, all three must be put to use. By definition, such plants respect no boundaries, so coordinated public and private efforts are essential to successfully dealing with this constant threat to our environment.

*An **invasive plant** is one that has the ability to thrive and spread aggressively outside its natural range.*
*A **noxious weed** is an invasive, often herbaceous plant traditionally designated as a threat to farmland, pasture or wetlands. Some of our most serious invasive forest species are not official noxious weeds: English laurel, English holly, English ivy, and knotweed.*

6.91 Best Management Practices for Invasive Plant Infestations

1. Properly identify the existence, extent and species of invasive plants within your site
2. Contact the Kitsap County Weed Control Program for direction on invasive control methods or when dealing with a Class A noxious species, mandatory eradication (contact information: http://kitsap.wsu.edu/noxious_weed/index.htm)
3. Determine the type or combination of control methods that apply to your situation and site and from this information develop a specific Maintenance Plan. Control options include biocontrol (using selected insects and pathogens), weeding, grazing, smothering (with sheet mulch), herbicides, and mechanical removal. Always select the most environmentally-friendly alternative you can, within the constraints of the situation
4. Use techniques developed through experience by others. See Appendix H (References) for excellent resources to help Bainbridge Island win the war against invasives, one infestation at a time
5. "An ounce of prevention" is key to invasive and noxious weed management. Protect desirable vegetation by monitoring, and weed out invaders as soon as they appear. Don't waste energy attacking the worst first – instead save valuable, intact plant communities
6. Embrace the adage "prevention begins at home." Engage local nurseries, landscapers, garden clubs, schools, service organizations, park managers, permitting agencies and realtors to raise public awareness about invasive plants
7. Encourage the use of non-invasive ornamental species in public and private landscapes. Eliminate them from civic landscapes and in their place demonstrate vigorous, attractive alternatives to popular invasive ornamentals like holly, laurel, ivy, butterfly bush and broom

Note on Ivy Removal:
In addition to hurting trunks and killing canopies, English ivy weighs down our Northwest trees and can cause them to fail in whole or in part, during storms. It is important to control ivy growth into trees by removing as much as possible. A qualified professional can climb the tree and remove ivy from high in the canopy.

An effective way to control ivy is to cut vine stems at the base of the trunk and 4 feet up. Strip away cut sections while leaving vines higher in the tree to die on their own without pulling them down, which can be dangerous, fruitless or damaging to a tree's protective bark. For large vines, a crowbar or pruning saw may be needed to cut the vines, and a screwdriver to pry them off. The goal is to delay return growth and keep the tree healthy even if it inhabits a sea of ivy.

For long-term control, remove ivy roots and replant with sword fern or other native ground covers. To discourage erosion, cleared slopes should be replanted in the fall before winter rains set in.

APPENDICES

The Appendices that follow are intended to provide more specific information for managing Bainbridge Island's important Community Forest resource.

APPENDIX A – Arborists – What you Need to Know

ISA Certified Arborist

A certified Arborist has at least 3 years' experience in tree care industry and has passed an exam demonstrating knowledge in all areas of arboriculture. Continued Education credits are required for recertification every 3 years. www.isa-arbor.com.

ASCA Registered Consulting Arborist

This is the highest certification a consulting arborist can earn; RCAs are considered experts of the field. They must have extensive technical experience in landscape planning and development, tree preservation, hazard tree assessment, legal matters, tree appraisal and damage assessment. They must meet and maintain requirements for membership in ASCA, including Continuing Education requirements. They must have completed ASCA's rigorous Consulting Academy and passed a qualifying exam. They must also demonstrate extensive report writing competence through reports submitted for peer review. There are currently only 6 arborists in the State of Washington with this designation.
http://asca-consultants.org

TRAQ

This is the industry standard for Tree Risk Assessment and is administered by the ISA.

Tree Professional

An individual with relevant education and training in arboriculture or urban forestry. The individual must be an arborist certified by the International Society of Arboriculture or a registered consulting arborist from the American Society of Consulting Arborists or have equivalent training from an organization such as Tree Care Industry Association and for Forest Management Plans may be a certified forester by the Society of American Foresters. A Tree Professional must possess the ability to perform tree risk assessments and prescribe appropriate measures necessary for the preservation of trees during land development. For Forest Management Plans, the qualified professional must have the ability to assess wooded sites and prescribe measures for forest health and safety.

What is Urban Forestry?

Urban forestry is the care and management of urban forests, i.e., tree populations in urban settings for the purpose of improving the urban environment. Urban forestry advocates the role of trees as a critical part of the urban infrastructure. Urban forestry is practiced by municipal and commercial arborists, municipal and utility foresters, environmental policymakers, city planners, consultants, educators, researchers and community activists. (Wikipedia)
There is no officially certified title of "Urban Forester" at this time, that we know of.

Selecting an Arborist

Hiring a tree care provider deserves careful consideration and caution. A mistake can be expensive and long-lasting, while the right choice can assure health, beauty and longer life for your trees and landscape.

- First decide if you need a diagnosis of a suspected problem, or a tree service company to perform work that has been prescribed
- Beware of *door-knockers* who may show up just after storms when there is an opportunity to earn quick money. These may not be professionals and may not have the skills or proper equipment to do the work safely
- Hire an arborist or tree worker who has been certified through a program of the International Society of Arboriculture (ISA) and has a business license
- Ask the arborist for a client or reference list so that you can assess their workmanship
- Check the phone directory, usually under trees or tree care service. Listings in the directory should indicate some degree of permanence. Look for professional membership affiliations. Membership does not guarantee quality, but a lack of it may cast doubt on the company's commitment to professionalism
- Get copies of proof of liability, personal insurance, property damage insurance and worker's compensation. Don't stop there – call the insurance company to verify that the policy is current
- Obtain more than one written estimate that clearly states their scope of work, but don't expect an arborist to lower a bid to match another's
- A good arborist will not use climbing spikes unless the tree is going to be removed
- Beware of an arborist who is too eager to remove a living tree, but keep in mind that living is not always equal to healthy or structurally sound

The Contract for Services

A contract should protect you and the tree professional. Most companies will provide their own contract and should include the following basics:

- Dates that work will begin and end.
- Specific Scope of Work
- Cleanup procedures should be listed and whether firewood will need to be cut (and into what lengths)
- Clarify if a tree removal includes grinding the stump and surface roots and if so, how deep? Will they remove grindings and backfill the hole?
- The total dollar amount you will be charged and how: (a) as a single price for the job, or (b) on an hourly basis plus materials "…but not to exceed…".

APPENDIX B-- Tree Protection Specifications (General Guidelines)

1. This specification must be followed for all trees that are in close proximity to any clearing and grading limits.
2. After the site has been surveyed, and clearing and grading stakes are in place, the Tree Professional will visit the site to determine the actual placement of tree protection measures based on the potential impact to tree root systems. Final adjustment of clearing limits will be made on site.
3. Tree Protection Zone (TPZ) fencing or other barriers shall be installed along all clearing limits to protect the Critical Root Zones (CRZ) of trees that are to be preserved. Optimal CRZ areas should be calculated at 1.5 foot radius for every 1 inch of tree DBH. Work required for removal of unwanted vegetation within the CRZ areas will be **hand work only**. TPZ fencing shall be 4' tall orange plastic fencing anchored with steel stakes or 6' chain link fence. The Tree Professional may also require plywood boxing around trees in certain high traffic areas, and will meet on site with the contractor to determine the specific types of fencing, placement, and specific clearing instructions for areas near preserved trees. Adjustment of the initial TPZ lay out may be required as construction progresses.
4. Within the TPZ areas no parking, materials storage, dumping, or burning is allowed.
5. When removing trees outside of the TPZ determined to be unacceptable for retention, use methods such as directional felling to avoid damage to trees and other valuable vegetation that is being retained. Small trees and other native vegetation in these areas should be carefully preserved.
6. Where the arborist has determined that roots of a preserved tree may be encountered during excavation or grading, a Tree Professional shall be on site to supervise any root pruning and to assess the potential impact of such pruning. Any root greater than 1.5" diameter that is encountered shall be carefully cut with a sharp tool. Roots cut shall be immediately covered with soil or mulch and kept moist.
7. Where access for machinery or any vehicle is required within the CRZ or TPZ of any preserved tree, the soil should be protected from compaction. Acceptable methods include 18" of wood chips or hog fuel, plywood, or steel sheets.
8. TPZ fencing shall not be moved without authorization from the Tree Professional or the site supervisor. All fencing is to be left in place until the completion of the project. Tree protection signage shall be attached to fencing only.
9. Landscaping specified within the TPZ areas shall be designed to limit disturbance of surface soils and preserved vegetation. No root pruning is permitted. New plants added in these areas should be of the smallest size possible to minimize disturbance.
10. Where backfill is required within a CRZ or TPZ area, the Tree Professional shall determine the amount and type of fill material to be used.
11. The Tree Professional will provide a recommendation using ANSI A300 American Standards for Pruning to remove dead wood, provide clearance, and cabling or bracing. Use of an International Society of Arboriculture Certified Arborist to perform the recommended work is strongly recommended.
12. Supplemental irrigation for all protected trees is required during the summer months or prolonged periods of dry weather. THIS IS MOST IMPORTANT FOR SUCESSFUL TREE RETENTION.
13. Monitoring of all trees, especially those exposed to new environmental conditions such as exposure to wind, sun, or deep shade, shall occur annually to check for adverse changes to the tree health or stability.

APPENDIX C—Public Tree Removal Criteria

Trees may be removed in accordance with the BIMC. See sections 16.18.040 and 18.15.010 for Vegetation management regulations.

Public Tree Removal Considerations include:

- Vandalism
- Casualty/Accident
- Sight Line Obstruction (traffic lights, signs, view safety)
- Outgrew the site (various reasons)
- Capital Improvement (street widening, new entrances, sidewalk installation, etc.)
- Natural Disaster (storms, wind, landslide, fire, etc.)
- Disease
- Risk consideration (over mature, structural problems)
- Utility Conflicts (buckling paving and sidewalks, growing into overhead power lines)
- Maintenance
- Development (loss of 30% or more critical root area)

APPENDIX D-- Alternatives to Tree Removal

Create a Wildlife Snag

The object of creating a snag is to preserve as large a portion of a defective tree as the location permits, so it can serve as habitat for birds and insects and to blend in with the landscape. The cuts made by chainsaw should be disguised to look like a natural break

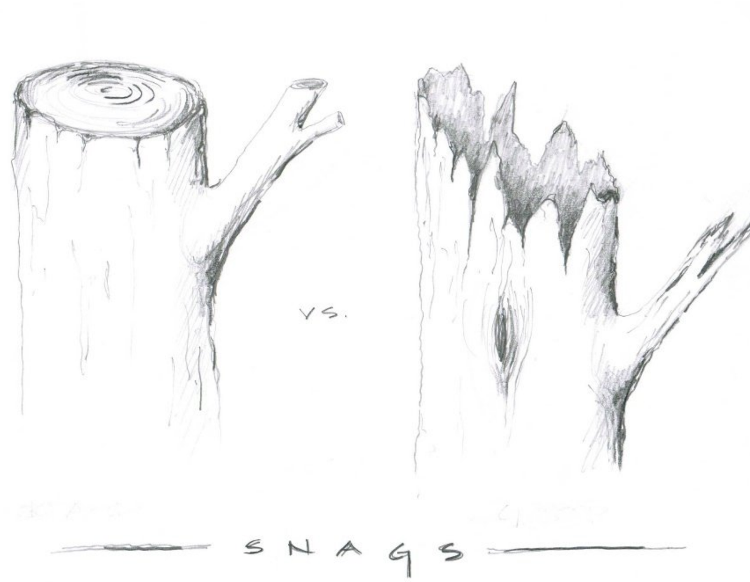
The height of a snag is dependent on the site. It is important to remember the tree will slowly decay and fall apart. In busy locations, it is best to choose a height that will not put anything at risk. Based on management concerns and budget, long-lived snag species may be monitored and reduced in height again as they break down.

Long lasting snags = 15 years or more
Douglas fir (*Pseudotsuga menziesii*),
Western red cedar (*Thuja plicata*)
Bigleaf maples (*Acer macrophyllum)*
Other maple species (*Acer spp.*)
Oak species (Quercus spp.)

Short lived snags = Less than 15 years
Western hemlock (Tsuga heterophylla)
Red Alder (Alnus rubra)
Bitter cherry (Prunus emarginata)
Black cottonwood (Populus trichocarpa)

Snag Creation techniques:
Birds love a perch, and so, it is important not to strip a snag tree of the lower branches. Branches can be cut back, but stubs should be left to serve as perches and to mimic nature. Ragged cuts at the end of branches will look best when the tree is finished.
The cut at the top is important to the look of the final project.

- Try to mimic the way trees that break naturally look.
- Many small slits in the edge of the trunk works well.
- Use a small sledgehammer to break and bend the smaller pieces created with saw cuts.



Installing bird holes and bat slits:
Bird holes form as stumps decay and woodpeckers begin to work on the decayed wood. Bats often use narrow cracks or loose pieces of bark to roost in. This process can be speeded up by cutting in a birdhouse or bat slit in the created snag.
CAUTION; these techniques require advanced chainsaw skills. Use a small, sharp saw and extreme care.

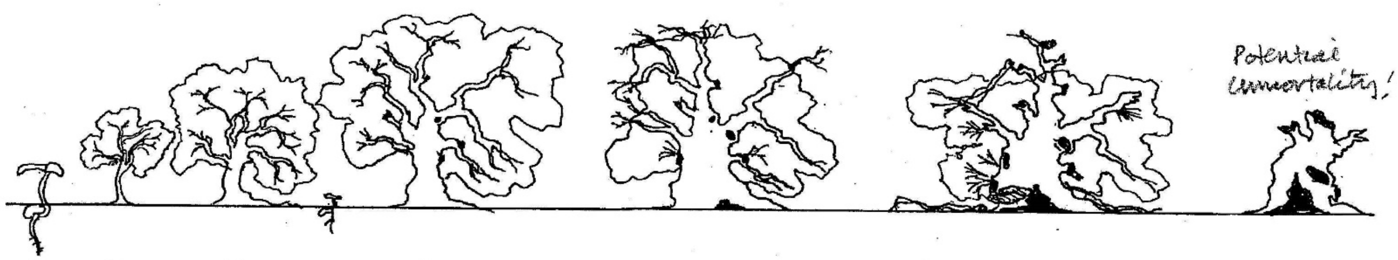
- Bore a triangular “pie’ shaped piece from the trunk. Use a crowbar to pop the piece loose.
- Send the piece to the ground and cut the back off, leaving a 1-2” thick slab of wood with the bark.
- Drill an appropriately sized hole. Two northwest species that use trees are chickadee (1”) and Flicker (2.5“)
- Deepen and enlarge the hole using the tip of the saw bar
- Send the piece back up into the snag and screw or nail it back in place.
- For bats, make a shallow cut upwards into the trunk of the tree; use the saw to widen the cut to about ½”.

Veteranizing an Old Tree
"Veteranizing" – or retrenchment pruning, is the current European practice of allowing mature and senescent trees to be managed to reduce risk, but stay as elder members of the Community Forest so they can continue to provide ecological value for a wide range of organisms.

Fay, Neville, (2002) Environmental Arboriculture, Tree Ecology and Veteran Tree Management.
The Arboricultural Journal, 26 (3) 213-238.

The Ageing Process: From Infancy to Death

By Neville Fay of Treework Environmental Consultancy, designer Christine Kirkley



A B C D E F G

Stages			*Annual Rings*	*Ideal Natural State : Optimum Growth*	
Formative	**A - B** Infancy pre-sexual maturity:	Young tree, high vitality Growth enhanced by mycorrhizal root associates	Increase in size	**Germination**	
	B - C Juvenile to early maturity:	Continued fast growth Net increase in annual increment Low volume of dysfunctional tissue		Low habitat contribution	High vitality
Full to late maturity	**C - D** Full to late maturity:	Growth to peak crown size Colonisation by saproxylic (deadwood) invertebrates Maximum pollination and seed capacity Onset of natural limb loss Increase of dysfunctional tissue Accelerated fungal colonization and activity	Tend to constant size		
Ancient	**D - E** Early ancient stage:	Retrenchment of crown: reduction in net annual increment Contraction of live crown Increased vegetative vitality in lower crown Increased fungal activity and wood decay Increased colonization by flora and saproxylic fauna	Begin to decrease Gradual decrease in ring size		
	E - F Late ancient stage:	Advanced retrenchment Decline in crown size and annual increment Extensive hollowing Crown collapse Declining vitality Advanced heartwood decay and hollowing Advanced activity by fauna and flora	Annual rings become discontinuous in circumference	Increasing nutrient status of tree for colonizers Increasing habitat capacity of tree	Gradual decline in vitality
	F - G Senescent stage:	Terminal decline: Tree death Continuing fungal activity Peak of saproxylic activity Nutrient recycling		**Death**	

APPENDIX E-- Best Management Practices for Pruning of Trees

The most current and up to date version of ANSI A300 standards for Tree, Shrub, and Other Woody Plant Management-Standard Practices should be reviewed for best pruning procedures.

TCIA, *the Tree Care Industry Association*, is a good resource for these standards. To order a copy visit the below URL:

http://www.tcia.org

APPENDIX F – Providing Space for Urban Trees

Overview of Alternatives
Evaluate streetscape alternatives to the classic street profiles (following in Appendix G) that incorporate some common sense technologies and research. The following list is a brief overview of ways to provide space for tree roots while reducing infrastructure damage.

Planting Space
Match tree species with available space. When possible, allow between 10 and 15 feet for large growing species, and take advantage of the added benefits of the increased canopy cover they provide.

Curving Sidewalks
Create additional space for trees by replacing existing sidewalks with ones that curve away from the tree. Build a new section or narrow the existing one to a minimum of 39 inches (for wheelchair access.)

Pop-Outs
Remove a section of curb and extend the planting space into the street, taking care to maintain water drainage. Combine with curved sidewalks to maximize tree space.

Tree Islands
Plant trees in groups, so they can share root space. This technique can be useful in non-linear settings, and they can double as traffic-calming devices.

Narrower Streets
Make more space for trees and people by widening sidewalks and planting spaces, and reducing the width of streets in appropriate locations. This has been shown to lower the number of accidents by slowing traffic. This will become more practical as cars get smaller and their numbers decrease in the coming decades.

Structural Soil
A structural soil mix, sometimes called an engineered or load-bearing soil, offers an alternative medium for planting in pits and under sidewalks. A formula developed by Cornell University researchers, consists of approximately 80 percent small triangular stones mixed with about 20 percent loam, along with a small amount of water retention material that also helps to keep the pore spaces open. The mixture helps prevent soil compaction, preserve large air spaces, and help ensure oxygen supply to the roots. When used under a sidewalk, there is promising evidence that this mix will support the pavement and keep it from lifting. Structural soil mix used under sidewalks can also expand the rooting space to extend under the pavement. It can be used to connect existing tree pits and increase available rooting space on the most congested urban thoroughfare.

Super Planting Pits
Where new construction is proposed, design large, unsealed surfaces (>130 sq. ft.) in combination with deep soil loosening, providing at least 525 cubic ft. of soil for each tree. A typical profile might be 24” topsoil, 24-32” exchanged mineral base soil, and 32-48” loosened original soil.

Root Barriers
Material installed vertically, directly adjacent to the paving should extend above the soil and mulch line. This will keep roots from growing over the top of the barrier. Ribbed material is more effective in directing roots downward and horizontally, instead of under sidewalks.

Rubber Sidewalks/ vaulted sidewalks
A modular sidewalk system made of recycled tires is relatively simple to install over existing tree roots. The material allows some flexibility of movement, and the modularity allows removal of specific portions for periodic inspection of tree roots. It also keeps tires out of landfills.

Appendix F is compiled from:

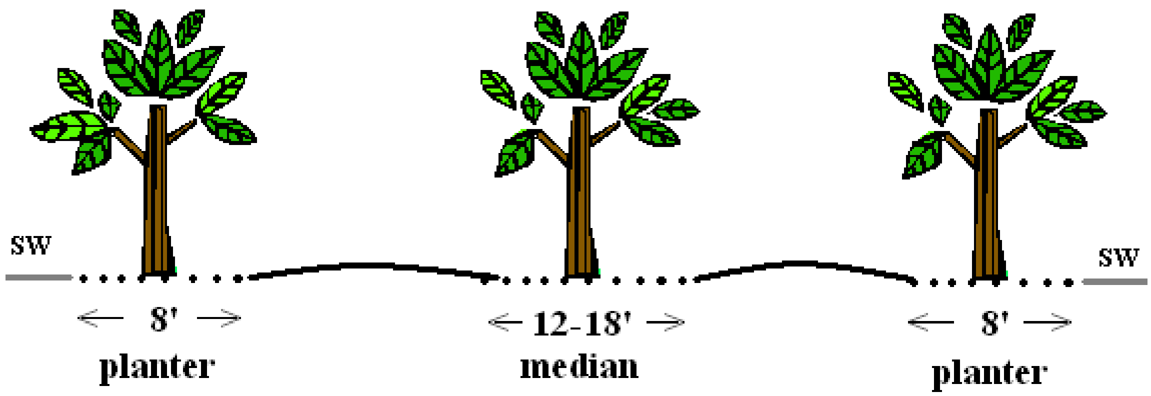
Buhler, Kristofferson & Larsen. *Growth of Street Trees in Copenhagen*, Scientific Journal of the ISA, Vol. 33, No.5. Sept. 2007.

Costello & Jones. *Designer Sidewalks*, ISA Arborist News Vol. 14, No 5. Oct. 2005
Rubber Sidewalks, Inc. **www.Rubbersidewalks.com**

Urban, James, **Up By Roots**. ISA, 2008.

APPENDIX G-- Classic Street Profiles for Trees

The ideal street profile to create a tree-lined street with canopy forming trees would include 8' planter strips plus 12-18' wide medians. Future designs of major and minor arterials should consider this type of design where rights-of-way permit. This design provides adequate space above and below ground for trees, minimizing damage to curbs, sidewalks and streets. These guidelines enhance the driving, bike riding, jogging and walking experiences on these types of streets.

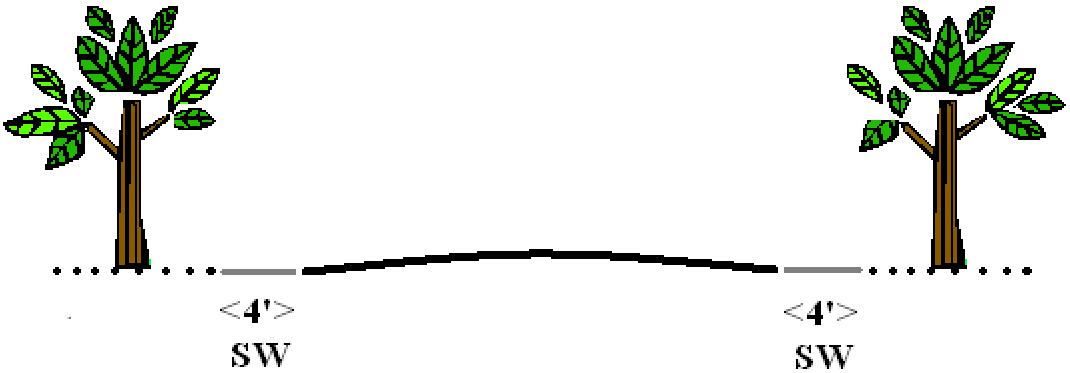


This is the ideal street design for development of maximum canopy, while providing separation between streets and sidewalks.

When space does not allow the development of a full median, 8' planter strips will offer enough room for large, canopy forming trees to be planted.

Planter strips should not be less than 6' wide. These narrow widths will only accommodate plantings of small to medium sized trees that will not produce the canopy effect.

Street designs that incorporate a 4' planter should not be planted with trees due to the limited above and below ground space. If trees are required as part of the street development or frontage improvement, then the trees should be planted at a minimum 4' behind the outside edge of the sidewalk if adequate space and rights-of-way are available.



Street trees are planted behind the sidewalk within public rights-of-way.

APPENDIX H--Additional References and Resources

The following websites provide related information and additional links.

Bainbridge Island Land Trust – www.bi-landtrust.org

City of Bainbridge Island – www.bainbridgewa.gov

City of Bainbridge Island Community Forest Management Plan

Matheny and Clark, Trees and Development: A Technical Guide to Preservation of Trees During Land Development

Kitsap County Extension (Washington State University) – www.extension.wsu.edu/kitsap/

The National Arbor Day Foundation – www.arborday.org

Pacific Northwest Chapter – International Society of Arboriculture – www.pnwisa.org

Tree Care Industry Association- TCIA - www.tcia.org

Trees Are Good http://www.treesaregood.com/

APPENDIX I- Suggested Landscape Matrix

This matrix provides a list of suggested plant materials recommended for use on Bainbridge Island. Additional plants may be added to this list as deemed appropriate by the department. Plants shall be selected based upon site-specific conditions which may affect plant growth such as sun exposure, soil types, shoreline conditions, adjacent site improvements, etc. Plant material selection shall be coordinated with utility company requirements to avoid conflicts.

		Parking lot trees	Landscape buffer areas	Critical areas – Uplands	Critical areas – Wetlands/streams	Native species	Drought resistant	Shoreline	Trees near util. lines
Large deciduous trees									
Acer macrophyllum	Bigleaf Maple	▪	▪	✠	✠	✠	▪	▪	▪
Acer rubrum species	Red Maple variety	✠	✠	▪	▪	▪	▪	✠	▪
Acer saccharum	Sugar Maple	✠	✠	▪	▪	▪	▪	▪	▪
Alnus oregona	Red Alder	▪	▪	✠	✠	✠	✠	▪	▪
Fagus sylvatica	European Beech	▪	✠	▪	▪	▪	✠	✠	▪
Fraxinus latifolia	Oregon Ash	▪	▪	✠	✠	✠	▪	▪	▪
Gingko biloba 'Sentry'	Columnar Maidenhair	▪	✠	▪	▪	▪	✠	▪	▪
Liquidambar styraciflua	American Sweet Gum	✠	✠	▪	▪	▪	✠	✠	▪
Liriodendron tulipifera	Tulip Tree	▪	✠	▪	▪	▪	▪	▪	▪
Platanus x acerifolia	London Plane	▪	✠	▪	▪	▪	▪	▪	▪
Populus trichocarpa	Black Cottonwood	▪	▪	▪	✠	✠	▪	▪	▪
Quercus species	Oak variety	▪	✠	▪	▪	▪	✠	▪	▪
Quercus robur 'Fastigiata'	Upright English Oak	▪	✠	▪	▪	▪	✠	✠	▪
Quercus rubra species	Eastern Red Oak	▪	✠	▪	▪	▪	✠	▪	▪
Salix species	Willow variety	▪	▪	▪	✠	✠	▪	✠	▪
Tilia cordata	Littleleaf Linden	✠	✠	▪	▪	▪	▪	✠	▪
Medium deciduous trees									
Acer campestre	Hedge Maple	✠	▪	▪	▪	▪	✠	▪	✠
Betula species	Birch variety	✠	✠	▪	▪	▪	▪	▪	▪
Carpinus betulus	European Hornbeam	✠	✠	▪	▪	▪	✠	✠	▪
Cercidiphyllum japonicum	Katsura Tree	▪	✠	▪	▪	▪	▪	▪	▪

		Parking lot trees	Landscape buffer areas	Critical areas – Uplands	Critical areas – Wetlands/streams	Native species	Drought resistant	Shoreline	Trees near util. lines
Cornus species	Dogwood variety	▪	▪	✠	▪	✠	✠	▪	▪
Fraxinus pennsylvanica 'Marshall'	Marshall's Seedless Ash	✠	✠	▪	▪	▪	✠	▪	▪
Populus tremuloides	Quaking Aspen	▪	▪	▪	✠	✠	▪	▪	▪
Prunus species	Flowering Cherry variety	✠	✠	▪	▪	▪	✠	✠	▪
Pyrus calleryana species	Flowering Pear variety	✠	✠	▪	▪	▪	✠	▪	▪
Zelkova serrata 'Village Green'	Sawleaf Zelkova	✠	✠	▪	▪	▪	▪	▪	▪
Small deciduous trees		▪	▪	▪	▪	▪	▪	▪	▪
Acer circinatum	Vine Maple	▪	✠	✠	✠	✠	▪	▪	✠
Acer davidii	David Maple	▪	✠	▪	▪	▪	▪	▪	▪
Acer ginnala	Amur Maple	✠	✠	▪	▪	▪	▪	✠	✠
Acer palmatum	Japanese Maple	▪	✠	▪	▪	▪	▪	▪	✠
Amelanchier species	Serviceberry variety	▪	✠	✠	✠	✠	▪	▪	✠
Carpinus species	Hornbeam variety	✠	✠	▪	▪	▪	✠	✠	▪
Cornus florida	Eastern Dogwood	▪	✠	▪	▪	▪	▪	▪	✠
Cornus kousa	Kousa Dogwood	✠	✠	▪	▪	▪	▪	▪	✠
Crataegus species	Hawthorn variety	▪	✠	✠	▪	✠	✠	✠	✠
Magnolia species	Magnolia variety	✠	✠	▪	▪	▪	▪	✠	✠
Malus species	Flowering Crabapple	▪	✠	▪	▪	▪	▪	▪	✠
Prunus species	Flowering Cherry Plum	▪	✠	▪	▪	▪	✠	✠	✠
Rhus typhina	Staghorn Sumac	▪	✠	✠	▪	✠	✠	▪	✠
Styrax japonica	Japanese Snowball	▪	✠	▪	▪	▪	▪	▪	✠
Evergreen trees		▪	▪	▪	▪	▪	▪	▪	▪
Abies grandis	Grand Fir	▪	✠	✠	▪	✠	▪	▪	▪
Cedrus deodara	Deodar Cedar	▪	✠	▪	▪	▪	✠	✠	▪
Chamaecyparis lawsoniana	Port Orford Cedar	▪	✠	✠	▪	✠	✠	✠	▪
Chamaecyparis nootkatensis	Alaska Cedar	▪	✠	✠	▪	✠	✠	✠	▪
Calocedrus decurrens	Incense Cedar	▪	✠	▪	▪	▪	▪	▪	▪
Picea sitchensis	Sitka Spruce	▪	✠	▪	✠	✠	▪	✠	▪
Pinus contorta	Shore Pine	✠	✠	✠	▪	✠	✠	✠	▪
Pinus contorta latifolia	Lodgepole Pine	▪	✠	▪	▪	▪	✠	✠	▪

		Parking lot trees	Landscape buffer areas	Critical areas – Uplands	Critical areas – Wetlands/streams	Native species	Drought resistant	Shoreline	Trees near util. lines
Pinus densiflora	Japanese Red Pine	▪	✠	▪	▪	▪	✠	▪	▪
Pinus monticola	Western White Pine	▪	✠	✠	▪	✠	✠	▪	▪
Pinus nigra	Austrian Black Pine	▪	✠	▪	▪	▪	✠	✠	▪
Pinus ponderosa	Ponderosa Pine	▪	✠	▪	▪	▪	✠	▪	▪
Pinus sylvestris	Scotch Pine	✠	✠	▪	▪	▪	✠	✠	▪
Pinus thunbergii	Japanese Black Pine	▪	✠	▪	▪	▪	✠	✠	▪
Pseudotsuga menziesii	Douglas Fir	▪	✠	✠	▪	✠	✠	✠	▪
Sequoidendron sempervirens	Coastal Sequoia	▪	✠	▪	▪	▪	▪	✠	▪
Taxus brevifolia	Western Yew	▪	✠	▪	✠	✠	▪	✠	▪
Thuja plicata	Western Red Cedar	▪	✠	▪	✠	✠	▪	▪	▪
Tsuga heterophylla	Western Hemlock	▪	✠	▪	✠	✠	▪	▪	▪

Deciduous shrubs

Amelanchier alnifolia	Western Serviceberry	▪	✠	✠	✠	✠	▪	✠	▪
Callicarpa japonica	Japanese Beautyberry	▪	✠	▪	▪	▪	▪	▪	▪
Cornus stolonifera	Red-Osier Dogwood	▪	✠	✠	✠	✠	▪	✠	▪
Corylus cornuta califorinica	Western Hazelnut	▪	✠	✠	▪	✠	✠	▪	✠
Enkianthus campanulatus	Red-Veined Enkianthus	▪	✠	▪	▪	▪	▪	▪	▪
Elaegnus species	Elaeagnus variety	▪	✠	▪	▪	▪	✠	✠	▪
Euonymus alata 'Compacta'	Winged Eunymus	▪	✠	▪	▪	▪	✠	✠	▪
Hamamelis mollis	Chinese Witch Hazel	▪	✠	▪	▪	▪	▪	▪	▪
Holodiscus discolor	Ocean Spray	▪	▪	✠	✠	✠	✠	✠	▪
Hydrangea lacecap varieties	Lacecap Hydrangea	▪	✠	▪	▪	▪	▪	▪	▪
Potentilla fruticosa	Potentilla	▪	✠	▪	▪	▪	✠	✠	▪
Physocarpus capitatus	Pacific Ninebark	▪	▪	▪	✠	✠	▪	▪	▪
Rhamnus purshiana	Cascara Sagrada	▪	▪	✠	✠	✠	▪	▪	▪
Ribes sanguineum	Red-Flowering Currant	▪	✠	✠	✠	✠	▪	▪	▪
Rosa nutkana	Nootka Rose	▪	▪	✠	✠	✠	▪	✠	▪
Rosa rugosa	Rugosa Rose	▪	✠	▪	▪	▪	✠	✠	▪
Rubus parviflorus	Thimbleberry	▪	✠	✠	✠	✠	▪	▪	▪
Rubus spectabilis	Salmonberry	▪	✠	✠	✠	✠	▪	✠	▪
Salix species	Willow variety	▪	▪	▪	✠	✠	▪	✠	▪
Sambucus racemosa	Red Elderberry	▪	▪	✠	✠	✠	▪	✠	▪

		Parking lot trees	Landscape buffer areas	Critical areas – Uplands	Critical areas – Wetlands/streams	Native species	Drought resistant	Shoreline	Trees near util. lines
Spiraea species	Spiraea variety	▪	✠	▪	✠	✠	✠	✠	▪
Symphoricarpos albus	Snowberry	▪	✠	✠	▪	✠	✠	▪	▪
Syringa vulgaris cultivars	Lilacs	▪	✠	▪	▪	▪	▪	✠	▪
Vaccinium parvifolium	Red Huckleberry	▪	▪	▪	✠	✠	▪	▪	▪
Viburnum x burkwoodii	Burkwood Viburnum	▪	✠	▪	▪	▪	▪	✠	▪
Evergreen shrubs		▪	▪	▪	▪	▪	▪	▪	▪
Arbutus unedo	Strawberry Tree	▪	✠	▪	▪	▪	✠	✠	✠
Cotoneaster species	Cotoneaster variety	▪	✠	▪	▪	▪	✠	✠	▪
Gaultheria shallon	Salal	▪	✠	✠	✠	✠	✠	✠	▪
Ilex crenata	Japanese Holly	▪	✠	▪	▪	▪	▪	▪	▪
Kalmia latifolia	Mountain Laurel	▪	✠	▪	▪	▪	▪	▪	▪
Ligustrum japonicum	Japanese Privet	▪	✠	▪	▪	▪	▪	▪	▪
Myrica californica	Pacific Wax Myrtle	▪	✠	✠	✠	✠	✠	✠	▪
Umbellularia californica	California Bay Laurel	✠	✠	▪	▪	▪	✠	✠	✠
Osmarea x burkwoodii	Burkwood Osmarea	▪	✠	▪	▪	▪	✠	▪	▪
Osmanthus delavayi	Delavay Osmanthus	▪	✠	▪	▪	▪	✠	✠	▪
Photinia frazeri	Japanese Photinia	▪	✠	▪	▪	▪	✠	✠	▪
Pieris floribunda	Mountain Pieris	▪	✠	▪	▪	▪	▪	✠	▪
Pieris japonica	Japanese Pieris	▪	✠	▪	▪	▪	▪	✠	▪
Prunus lusitanica	Portuguese Laurel	▪	✠	▪	▪	▪	✠	▪	▪
Pinus mugo	Mugho Pine	▪	✠	▪	▪	▪	✠	✠	▪
Rhododendron spp./ hybrids	Rhododendrons / Azaleas	▪	✠	✠	▪	✠	▪	✠	▪
Vaccinium ovatum	Evergreen Huckleberry	▪	✠	✠	✠	✠	▪	✠	▪
Viburnum sinus species	Laurustinus variety	▪	✠	▪	▪	▪	✠	✠	▪
Groundcovers		▪	▪	▪	▪	▪	▪	▪	▪
Arctostaphylos uva-ursi	Kinnikinnick	▪	✠	✠	▪	✠	✠	✠	▪
Berberis nervosa	Cascade Mahonia	▪	✠	✠	▪	✠	✠	▪	▪
Calluna vulgaris	Scotch Heather	▪	✠	▪	▪	▪	▪	✠	▪
Ceanothus gloriosus	Point Reyes Ceanothus	▪	✠	▪	▪	▪	✠	✠	▪
Cotoneaster microphyllus ‘Cochleatus’	Rockspray Cotoneaster	▪	✠	▪	▪	▪	✠	✠	▪
Erica carnea	Winter Heath	▪	✠	▪	▪	▪	▪	✠	▪

		Parking lot trees	Landscape buffer areas	Critical areas – Uplands	Critical areas – Wetlands/streams	Native species	Drought resistant	Shoreline	Trees near util. lines
Erica x darleyensis	Mediterranean Heather	▪	✠	▪	▪	▪	▪	▪	▪
Euonymus fortuei	Winter Creeper Euonymus	▪	✠	▪	▪	▪	▪	✠	▪
Hypericum calycinum	St Johnswart	▪	✠	▪	▪	▪	▪	✠	▪
Ilex crenata varieties & cultivars	Japanese Holly	▪	✠	▪	▪	▪	▪	▪	▪
Mahonia species	Mahonia variety	▪	✠	▪	▪	▪	▪	✠	▪
Pachysandra terminalis	Japanese Spurge	▪	✠	▪	▪	▪	✠	▪	▪
Sarcococca hookerana	Sarcococca	▪	✠	▪	▪	▪	▪	▪	▪

Revised by CFC - 2010

Additional Natives for the Landscape Matrix Community Forest

Large deciduous trees

Cornus nutallii	Pacific Dogwood	buf, n
Quercus garryana	Garry Oak	buf, n, drt

Small deciduous trees

Prunus emerginata	Bitter Cherry	buf, n, drt, shr, utl

Deciduous shrubs

Menziesia ferrugina	False azalea	buf, w, n
Omeleria cerasiformis	Indian Plum	buf, w, n
Oplopanax horridus	Devils Club	buf, w, n
Sorbus sitchensis	Sitka Mountain Ash	buf, up, n, drt
Spiraea douglasii	Hardhack Spiraea	buf, w, n
Viburnum edule	Highbush Cranberry	buf, up, n, shr

Evergreen shrubs

Polystichum munitum	Sword Fern	buf, up, n, drt
Rhododendron macrophyllum	Pacific Rhododendron	buf, up, n, shr

Groundcover

Blechnum spicant	Deer fern	buf, w, n
Gaultheria ovatifolia	Tea Berry	buf, w, n, shr

buf-buffer, **up**-uplands, **w**-wetlands, **n**-native, **drt**-drought, **shr**-shoreline, **utl**-utility

CITY OF
BAINBRIDGE ISLAND

Planning Commission Special Meeting Agenda Bill

MEETING DATE: May 27, 2021 **ESTIMATED TIME:** 30 Minutes

AGENDA ITEM: (6:50 PM) - Draft Ordinance No. 2021-12 & Resolution 2021-07: Phase 2 Triage Code Changes Related to Improving the Pre-application Phase.

AGENDA CATEGORY: Ordinance **PROPOSED BY:** David Greetham

PREVIOUS PLANNING COMMISSION REVIEW DATE(S): - October 29, 2020
- February 11, 2021
- March 11, 2021
- April 22, 2021
- May 13, 2021

PREVIOUS COUCIL REVIEW DATE(S):

RECOMMENDED MOTION:
Receive update on final PC/DRB subcommittee recommendations and schedule public hearing for June 10, 2021.

SUMMARY:
Staff will update the Planning Commission on the final DRB/PC subcommittee recommendations in preparation for a June 10, 2021 public hearing on the draft ordinance. The changes are incorporated into Draft Ordinance No. 2021-12 without track changes to aid the Planning Commission in their review of the process changes.

BACKGROUND: Early-mid 2020: The Design Review Board (DRB) determined that revisions to the preapplication process were necessary and appointed a subcommittee to work on proposed revisions to the BIMC, including BIMC Chapter 2.16 and Design for Bainbridge, which is incorporated by reference at BIMC at 18.18.

October 2020: The Planning Commission considered the land use subcommittee's proposed "triage" land use code changes and separated the changes into two phases, with the second phase including improvements to the preapplication process and the role of the Design Review Board and Planning Commission.

December 2020: A subcommittee of the Planning Commission joined the DRB subcommittee for two meetings to discuss the proposed process revisions. The key recommendation was to re-order the preapplication process such that the preapplication conference with staff occurs as the first step in the review process.

February 2021: The Planning Commission discussed Resolution No. 2010-32 that adopted the mandatory public participation program currently in effect. As the resolution didn't specify that the meetings would occur at the Planning Commission it was agreed that updates to the 2010 resolution were necessary to reflect the current. These revisions are reflected in draft Resolution 2021-07.

March 11, 2021: The Planning Commission conducted the first touch review of Ordinance 2021-12 and Resolution 2021-07. The Planning Commission reviewed draft code changes relating to the preapplication process, including moving the preapplication conference to the first step in the preapplication phase and the role of the Planning Commission and DRB in the meeting. In order to accommodate final recommendations of the DRB subcommittee, the Planning Commission agreed to continue the discussion upon completion of the final subcommittee recommendations. The subcommittee met three additional times in March, resulting in recommended revision to Design for Bainbridge in order to improve the pre-application and DRB review process.

April 22, 2021: Staff incorporated changes from the March 11 meeting into draft Ordinance 2021-12, including clarification of Planning Commission and DRB roles in the preapplication conference, added references to Resolution 2021-07 with regard to the updated public participation meeting process, and deletion of the process flow chart from BIMC 2.16. An updated flow chart is proposed to be added to Design for Bainbridge, and additional guidance for applicants is planned for the Design for Bainbridge web page currently under construction.

At the conclusion of the study session Planning Commission directed staff to reconvene the DRB/PC subcommittee to explore scaling back the proposed Design for Bainbridge revisions, including applicant submittal requirements for each DRB meeting.

May 13, 2021: Staff briefed the Planning Commission on subcommittee progress, including discussion of the revised process flowchart.

ATTACHMENTS:

ORDINANCE NO. 2021-12

AN ORDINANCE of the City of Bainbridge Island, Washington, amending BIMC 2.16.020, 2.16.040, 2.16.070, 2.16.110, 2.16.125, and 18.18 related to improving the early phases of the land usepermitting process.

WHEREAS, in mid-2020, Design Review Board members identified the need for more detailed background information prior to holding a Conceptual Review Meeting on early development proposals; and

WHEREAS, on August 17, 2020 the Design Review Board began formal discussion of Design Review Board role and changing the pre-application process; and

WHERAS, the Design Review Board appointed a subcommittee to continue more detailed work on proposed process revisions; and

WHEREAS, on June 22, 2020, the City Council formed a City Council and Planning Commission joint land use subcommittee (subcommittee) directed by the Council to, among other things, develop a process and list for undertaking work on priorities for land use code revisions; and

WHEREAS, the subcommittee's first phase of work included identifying urgent land use code changes; and

WHEREAS, the City Council endorsed beginning work on this first phase of work at their meeting on October 13, 2020; and

WHEREAS, on October 19, 2020 the Design Review Board reviewed the subcommittee draft proposed process revisions and made recommendations to reorder required meetings for projects that require Site Plan and Design Review and a Pre-application Conference such that the Preapplication conference is the first step, prior to Design Review Board Conceptual Review and Design Guidance meetings; and

WHEREAS, the Planning Commission considered the proposed changes on October 29, 2020 and separated the land use code changes into two phases, with the second phase including improvements to the preapplication process and the role of the Design Review Board and Planning Commission; and

WHEREAS, two Planning Commissioners joined the existing three member Design Review Board subcommittee to continue development of specific code improvements related to the preapplication phase of the land use permitting process; and

WHEREAS, on December 9 and 16, 2020 the newly formed Planning Commission/Design Review Board subcommittee reviewed and finalized proposed recommended revisions to the preapplication process revision recommendations; and

WHEREAS, the Design Review Board completed their review and recommended final code changes on April 19, 2021; and

WHEREAS, the Planning Commission discussed the Ordinance No. 2021-12 on March 11, April 22, May 13 and May 27, 2021; and

WHEREAS, the Planning Commission held a public hearing on this ordinance, Ordinance No. 2021-12 on June 10, 2021, and after closing the public hearing, made a recommendation of approval of Ordinance No. 2021-12 to the City Council; and

WHEREAS, notice was given on XXXX, 2021, to the Office of Community Development at the Washington State Department of Commerce in conformance with RCW 36.70A.106; and

WHEREAS, the City Council considered this ordinance at its meeting on XXX, 2021; and

WHEREAS, the City Council considered Ordinance No. 2021-12 further on XXXX, 2021, *holding a public hearing on the ordinance, and after closing the public hearing, further discussed the ordinance.*

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BAINBRIDGE ISLAND, WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. Section 2.16.020.F.1 of the Bainbridge Island Municipal Code is hereby amended to read as follows:

1. The Design Review Board shall review and make recommendations on all land use applications as set forth in this section. This design process reflects a collaborative effort between an applicant, the design review board, and the community to better incorporate the vision of the city as outlined in the adopted design standards and guidelines.

2. Subsequent to submittal of preapplication materials, the board shall review a proposal for conformance with applicable design standards and guidelines. The board's written recommendations shall be included in the staff report transmitted to the planning commission.

Section 1. Section 2.16.020.I of the Bainbridge Island Municipal Code is hereby amended to read as follows:

5. In the case of applications where Design Review Board review and a preapplication conference are required, the applicant shall first meet with department staff as described in this section and shall than meet with the Design Review Board to discuss the design concept and proceed through the design review process. The preapplication conference application shall be provided to the Design Review Board and the Planning Commission

Up to two members of the Design Review Board and the Planning Commission may attend the pre-application conference with the intent of listening and reporting the proposal to the full Design Review Board and the Planning Commission at a subsequent meeting.

Section 2. Section 2.16.040.D of the Bainbridge Island Municipal Code is hereby amended to read as follows:

D. Review Procedures – Project Proposal Phase ~~Stage~~. Review of site plan and design review proposals shall include all of the following in the order listed:

1. Preapplication Conference. The applicant shall participate in a preapplication conference in accordance with the provisions and requirements in BIMC 2.16.020.I.

2. Conceptual Review Meeting. The Conceptual Review Meeting is where the applicant presents a short project description, zoning summary, and a thorough narrative of design context in accordance with the *Design for Bainbridge* manual and appendices. This meeting is a means of providing feedback on projects in their earliest stages of design before applicants are committed to a particular design. The Conceptual Review Meeting is an opportunity to ensure that the applicant understands the design review process, and the design standards and guidelines. This early touch allows the Design Review Board and applicant to consider optional concepts for a project that may be better suited to the Island community and to dialogue in an informal manner with the applicant, and review the design standards and guidelines applicable to the site. The Conceptual Review Meeting will be held at a meeting of the Design Review Board. Project design submittal requirements are described in the *Design for Bainbridge* appendices.

3. Public Participation Meeting. As part of the project proposal phase, applicants are required to participate in a community meeting through the city's public participation program at a planning commission meeting and as outlined in Resolution No. 2021-07. The Public Participation Meeting is a meeting of citizen engagement, and the applicant's opportunity to respond to questions, comments, and assessments of the proposed project. A second Public Participation Meeting may be required if significant project changes occur after completion of the Design Guidance Review.

4. Design Guidance Review Meeting. The Design Guidance Review meeting will be held at a meeting of the Design Review Board. The Design Guidance Review meeting is intended to provide input and guidance to an applicant that the proposed project is responding adequately to the *Design for Bainbridge* standards, including recommendations for how the project could be revised to achieve greater consistency. The applicant shall also

make known the potential need and rationale for any departure from the design standards and guidelines. The design submittal requirements are described in the “Design for Bainbridge” appendices.

5. Final Design Review and Recommendation Meeting. The DRB reviews and makes a final determination of project consistency with *Design for Bainbridge* standards. The DRB shall recommend approval, approval with conditions or departures, or denial.

Section 4. Section 2.16.070.D of the Bainbridge Island Municipal Code is hereby amended to read as follows:

D. Review Procedures – Project Proposal Phase. Review of short subdivision proposals shall include all of the following in the order listed except that the division or redivision of land into two lots shall not be required to comply with subsections D.2 and D.3 of this section:

1. Preapplication Conference. The applicant shall participate in a preapplication conference in accordance with the provisions and requirements in BIMC 2.16.020.I.

2. Conceptual Proposal Review Meeting. The conceptual proposal review meeting is a means of screening short subdivision proposals in their earliest stages of design before proponents are committed to a particular design. The conceptual proposal meeting is an opportunity to ensure that the proponent understands the objectives of the review process, design guidelines, and comprehensive plan goals and policies. This early touch allows review bodies to dialogue in an informal manner with the applicant, review the design guidelines and comprehensive plan goals and policies applicable to the site, and explore design concepts and/or options. It is also a means for staff to acquaint the prospective applicant with the procedural steps for subdivision review. The conceptual proposal review meeting will be held at a meeting of the design review board. Submittal requirements are described in the administrative manual, and include a statement of intent, site analysis, and context map. An applicant may request a waiver from the conceptual proposal review meeting if the applicant demonstrates knowledge and understanding of the city’s permit processing procedures.

3. Public Participation Meeting. As part of the project proposal phase, applicants are required to participate in a community meeting through the city’s public participation program at a planning commission meeting and as outlined in Resolution No. 2021-07 The Public Participation Meeting is a meeting of citizen engagement, and the applicant’s opportunity to respond to questions, comments, and assessments of the proposed project. A second Public Participation Meeting may be required if significant project changes occur after completion of the Design Guidance Review.

4. Design Guidance Review Meeting. The design guidance review meeting is intended to provide input and guidance to an applicant on consistency with applicable design guidelines and comprehensive plan goals and policies, including recommendations for how the project could be revised to achieve greater consistency. The applicant should also make known the potential need and rationale for any departure from the design guidelines or the city of Bainbridge Island design and construction standards and specifications. The design guidance review meeting will be held at a meeting of the design review board. Submittal requirements are described in the administrative manual and include documentation of the four-step design process, schematic design, and completed subdivision design guidelines checklist. The four-step design process includes:

   a. Delineate Natural Space. The applicant shall prioritize natural resources on the site in terms of their highest to least appropriateness for inclusion in the proposed natural area. On the basis of those priorities and practical considerations given to the site's configuration, its context in relation to natural areas on adjoining and neighboring properties, and the applicant's subdivision objectives, natural space shall be delineated in a manner clearly indicating boundaries as well as the types of resources. The amount of natural space required is provided in Chapter 17.12 BIMC.

   b. Locate Homesites and Community Space. After delineating natural space, homesite areas and community space shall be identified (a "sketch" diagram is acceptable), using the site analysis and context maps produced for the conceptual proposal review meeting as a base map. The amount of community space required is provided in Chapter 17.12 BIMC.

   c. Define Access. After locating the natural space, homesites, and community space, the access network shall be defined. The access network shall provide a safe, convenient, and efficient system for vehicular, pedestrian and bicycle circulation and minimize impacts on proposed natural space.
   d. Draw Lot Lines. Upon completion of the preceding three steps, draw lot lines to delineate the boundaries of individual lots.

5. Final Design Review and Recommendation Meeting. The DRB reviews and makes a final determination of project consistency with *Design for Bainbridge* standards. The DRB shall recommend approval, approval with conditions or departures, or denial.

Section 5. Section 2.16.110.D of the Bainbridge Island Municipal Code is hereby amended to read as follows:

D. Review Procedures – Project Proposal Phase. Review of major conditional use permit proposals shall include all of the following in the order listed:

1. Preapplication Conference. The applicant shall participate in a preapplication

conference in accordance with the provisions and requirements in BIMC 2.16.020.I.

2. Conceptual Proposal Review Meeting. The conceptual proposal review meeting is a means of screening proposals in their earliest stages of design before proponents are committed to a particular design. The conceptual proposal meeting is an opportunity to ensure that the proponent understands the objectives of the review process, design guidelines, and comprehensive plan goals and policies. This early touch allows review bodies to dialogue in an informal manner with the applicant, review the design guidelines and comprehensive plan goals and policies applicable to the site, and explore design concepts and/or options. It is also a means for staff to acquaint the prospective applicant with the procedural steps for subdivision review. The conceptual proposal review meeting will be held at a meeting of the Design Review Board. Submittal requirements are described in the administrative manual, and include a statement of intent, site analysis, and context map. An applicant may request a waiver from the conceptual proposal review meeting if the applicant demonstrates knowledge and understanding of the city's permit processing procedures.

3. Public Participation Meeting. As part of the project proposal phase, applicants are required to participate in a community meeting through the city's public participation program at a planning commission meeting and as outlined in Resolution No. 2021-07. The Public Participation Meeting is a meeting of citizen engagement, and the applicant's opportunity to respond to questions, comments, and assessments of the proposed project. A second Public Participation Meeting may be required if significant project changes occur after completion of the Design Guidance Review.

4. Design Guidance Review Meeting. The design guidance review meeting is intended to provide input and guidance to an applicant on consistency with applicable design guidelines and comprehensive plan goals and policies, including recommendations for how the project could be revised to achieve greater consistency. The applicant should also make known the potential need and rationale for any departure from the design guidelines or the city of Bainbridge Island design and construction standards and specifications. The design guidance review meeting will be held at a meeting of the design review board. Requirements are described in the administrative manual and include a schematic design and completed design guidelines checklist.

5. Final Design Review and Recommendation Meeting. The DRB reviews and makes a final determination of project consistency with *Design for Bainbridge* standards. The DRB shall recommend approval, approval with conditions or departures, or denial.

Section 6. Section 2.16.125.D of the Bainbridge Island Municipal Code is hereby amended to read as follows:

D. Review Procedures – Project Proposal Phase. Review of long subdivision proposals shall include all of the following in the order listed:

1. Preapplication Conference. The applicant shall participate in a preapplication conference in accordance with the provisions and requirements in BIMC 2.16.020.I.

2. Conceptual Proposal Review Meeting. The conceptual proposal review meeting is a means of screening long subdivision proposals in their earliest stages of design before proponents are committed to a particular design. The conceptual proposal meeting is an opportunity to ensure that the proponent understands the objectives of the review process, design guidelines, and comprehensive plan goals and policies. This early touch allows review bodies to dialogue in an informal manner with the applicant, review the design guidelines and comprehensive plan goals and policies applicable to the site, and explore design concepts and/or options. It is also a means for staff to acquaint the prospective applicant with the procedural steps for subdivision review. The conceptual proposal review meeting will be held at a meeting of the design review board. Submittal requirements are described in the administrative manual, and include a statement of intent, site analysis, and context map. An applicant may request a waiver from the conceptual proposal review meeting if the applicant demonstrates knowledge and understanding of the city's permit processing procedures.

3. Public Participation Meeting. As part of the project proposal phase, applicants are required to participate in a community meeting through the city's public participation program at a planning commission meeting and as outlined in Resolution No. 2021-07. The Public Participation Meeting is a meeting of citizen engagement, and the applicant's opportunity to respond to questions, comments, and assessments of the proposed project. A second Public Participation Meeting may be required if significant project changes occur after completion of the Design Guidance Review.

4. Design Guidance Review Meeting. The design guidance review meeting is intended to provide input and guidance to an applicant on consistency with applicable design guidelines and comprehensive plan goals and policies, including recommendations for how the project could be revised to achieve greater consistency. The applicant should also make known the potential need and rationale for any departure from the design guidelines or the city of Bainbridge Island design and construction standards and specifications. The design guidance review meeting will be held at a meeting of the design review board. Submittal requirements are described in the administrative manual and include documentation of the four-step design process, schematic design, and completed subdivision design guidelines checklist. The four-step design process includes:

a. Delineate Natural Space. The applicant shall prioritize natural resources on the site in terms of their highest to least appropriateness for inclusion in the proposed natural area. On the basis of those priorities and practical considerations given to the site's configuration, its context in relation to natural areas on adjoining and neighboring properties, and the applicant's subdivision objectives, natural space shall be delineated in a manner clearly indicating boundaries as well as the types of resources. The amount of natural space required is provided in Chapter 17.12 BIMC.
b. Locate Homesites and Community Space. After delineating natural space, homesite areas and community space shall be identified (a "sketch" diagram is acceptable), using the site analysis and context maps produced for the conceptual proposal review meeting as a base map. The amount of community space required is provided in Chapter 17.12 BIMC.
c. Define Access. After locating the natural space, homesites, and community space, the access network shall be defined. The access network shall provide a safe, convenient, and efficient system for vehicular, pedestrian and bicycle circulation and minimize impacts on proposed natural space.
d. Draw Lot Lines. Upon completion of the preceding three steps, draw lot lines to delineate the boundaries of individual lots.

5. Final Design Review and Recommendation Meeting. The DRB reviews and makes a final determination of project consistency with *Design for Bainbridge* standards. The DRB shall recommend approval, approval with conditions or departures, or denial.

Section 7. Section 18.18.030 of the Bainbridge Island Municipal Code is hereby amended as shown in Exhibit A **DESIGN GUIDELINES (*DESIGN FOR BAINBRIDGE)* PLACEHOLDER** and Exhibit B Process Flow Chart.

Section 8. This ordinance shall take effect and be in force five (5) days from its passage and publication as required by law.

PASSED by the City Council this XX day of XXX, 2021.

APPROVED by the Mayor this XX day of XXX, 2021.

____
Rasham Nassar, Mayor

ATTEST/AUTHENTICATE:

____

Christine Brown, CMC, City Clerk

FILED WITH THE CITY CLERK:	XXX, 2021
PASSED BY THE CITY COUNCIL:	XXX, 2021
PUBLISHED:	XXX, 2021
EFFECTIVE DATE:	XXX, 2021
ORDINANCE NUMBER:	2021-12

Exhibit A *Design for Bainbridge*

[Note: Placeholder for underline-strikeout version of Design for Bainbridge]

Pp. 10-11, Design Review Process

Revisions: Updated and re-ordered meeting descriptions

NOTE: See Appendix A for submittal requirements for each individual meeting below.

1. **Pre-Application Conference.** The pre-application conference with City staff is intended to provide information to the applicant in response to the submittal of a preliminary site plan and a conceptual design for the project, showing how it responds to site characteristics and the context of neighboring uses. City staff shall identify potential issues/concerns related to applicable City development regulations and standards including, but not limited to, zoning, environmental, utilities, transportation and stormwater regulations, and relevant Comprehensive Plan goals and policies.

City staff shall ensure that the applicant is aware of the standards and criteria involved in review and approval of the project, both in the Bainbridge Island Municipal Code and the *Design for Bainbridge* manual. Planning staff shall prepare a summary letter detailing the pre-application guidance, to be provided to the applicant and the Design Review Board. See Appendix A below for a complete list of design related submittal requirements, in addition to other requirements in the Administrative Manual.

2. **Conceptual Proposal Review.** The Conceptual Proposal Review meeting is an applicant-led presentation to review site-specific conditions and contextual considerations for the design of development on site. This discussion is intended to inform strategies for site planning and massing that respond sensitively to the neighborhood context and the public realm as described in *Design for Bainbridge*. See Appendix A for a complete list of submittal requirements.

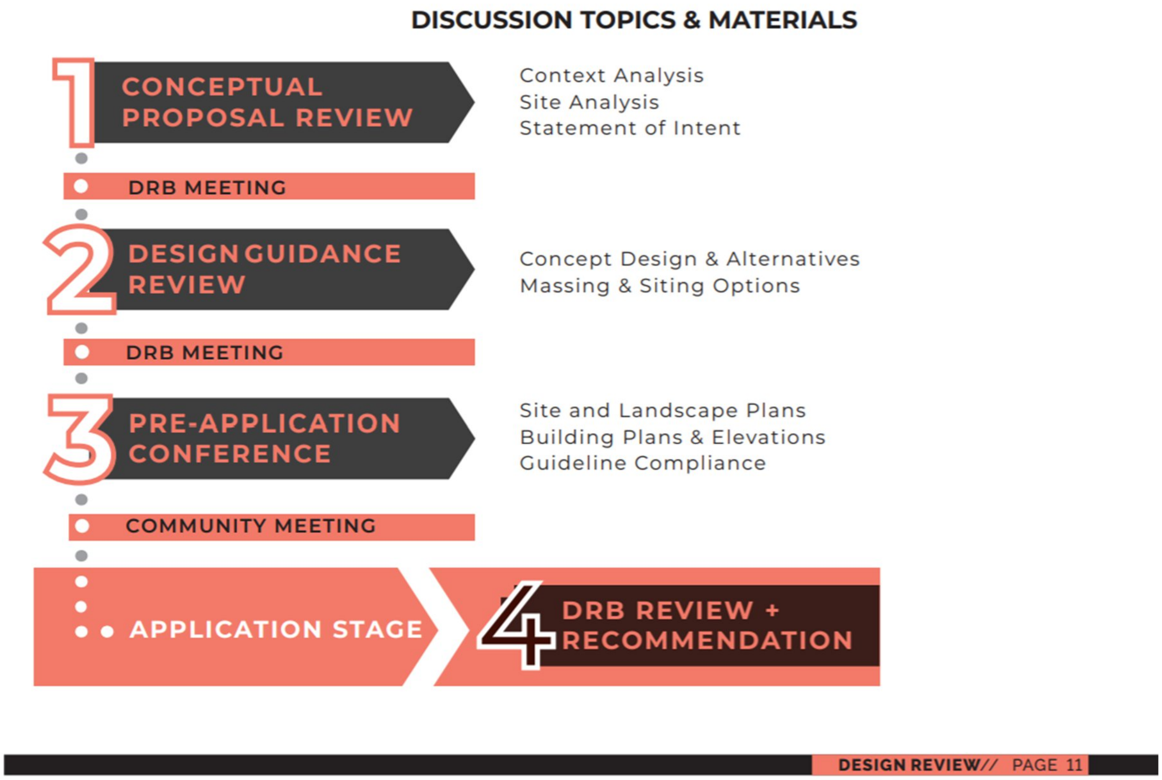
3. **Public Participation Meeting.** Following the Conceptual Proposal Review meeting, the applicant will make a formal and complete presentation of their concept(s) to the public at a Planning Commission meeting, providing the applicant an opportunity to respond to questions and comments from the public and Planning Commissioners before the Design Review Board conducts its design guidance review.

4. **Design Guidance Review.** Design guidance review meetings include applicant-led presentations at which the Design Review Board will offer guidance to applicants. The purpose of these meetings is to determine, with reference to the *Design for Bainbridge* manual, how the proposed alternatives fit the surrounding context, with a focus on the development's program, uses, site plan, and massing. The Board will also consider any requested departures, the rationale for those departures and their consistency with the intent and principles of the standards and guidelines. See Appendix A for a complete list of submittal requirements.

5. **DRB Review & Recommendation**. At this meeting, the Board will complete the review of final drawings and the DRB worksheet for compliance with Design Standards and Design Guidelines and ensure that the project reflects any required changes recommended by the Board, as listed in the project worksheet. The Board will document its findings and ~~transmit~~ issue a signed written recommendation. The Board's recommendation may include conditions to ensure compliance with all standards. If a majority of the Board members find that standards essential to the project's success have not been met, the Board shall recommend denial of the project. See Appendix A for a complete list of submittal requirements.

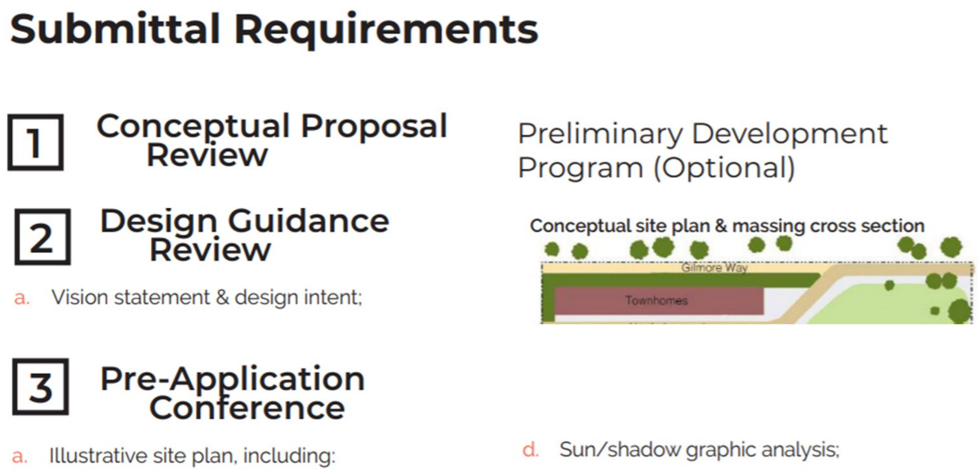
P. 11 Discussion Topics & Materials.

Revision: Replace existing 4-step chart below with revised project review flow chart (Exhibit B)



Pp. 12-14, Submittal Requirements.

Revision: Replace existing submittal requirements (summary snip below) with expanded meeting submittal requirements (new Appendix A, below) and additional graphic illustrations of site plans and building elevations (new Appendix B, below).



Misc. additional Design for Bainbridge text revisions and clarifications

General: Conduct word search for "design guidelines" and change to "design standards", except when referring to actual guidelines.

P.3 Change "Values and Principles" to "Goals and Principles

P.5 "Design Standards vs. Guidelines" paragraph: Bold "**For a project to be approved, it must comply with all applicable design standards…**" (line 8)

P.6 "Relationship to Other Regulations, and Permit Review" paragraph: Insert additional references to BIMC where applicable (e.g. Critical Areas, Shoreline Master Program references).

P.6 "Departures" paragraph: Delete "Departures shall be reviewed concurrently with an application…" (paragraph 2, second sentence), and delete "~~administrative~~ departures" (paragraph 2, third sentence)

P.7 "Definitions": Add reference to complete list of BIMC definitions in introductory sentence.

Pp.12-14 (Submittal requirements): Add language to each introductory section emphasizing necessity for applicant to *present* project to Design Review Board.

P.16 Ch. 3 Context Analysis introductory sentence: Bold "**Context analysis is a prerequisite for application of Design Standards and Design Guidelines.**"

P. 21 Ch. 4 Design Standards and Guidelines, introductory sentence: "In combination with the Contest Analysis in Chapter 3, the Design Standards in Chapters 4 and 7 establish the minimum requirements in Design for Bainbridge necessary to take advantage of the opportunities of the surrounding context and site while contributing to the neighborhood.

P.41 B5 Heading: "Use ~~high~~ durable, quality materials and well-crafted details."

P.49 Ch. 5, Street Types and Frontages: Break introductory paragraph into two paragraphs and insert reference to "Street Types" map on p.50.

P.65 Vegetated Buffer illustration: Revise "~~Setback~~ 25-50 feet" to "Buffer 25-50 feet" to clarify intent of illustration.

P.67 Subdivision Guidelines: Bold introductory sentence "**The subdivision guidelines in this chapter and the green street guidelines in the previous chapter support implementation of the City's subdivision standards in BIMC 17.12.**"

P.70 Homesite Design guideline, "Intent" sentence: "To efficiently configure building footprint(s) and allowed uses within ~~a~~ homesites."

Revision: Insert new appendix A

Appendix A: Design Review Board – Documents Required for Review

Pre-Application Conference

1. Project Zoning Summary (See Sample)
2, Context Analysis Map – Existing property including surrounding uses (See Sample)
3. Site Photos – up to 500' from property (optional)
4. Conceptual Site Analysis (topography, physical and natural features on site, trees >6" dbh) (See Sample)
5. Conceptual Site Plan (including pedestrian, vehicular access, architectural massing concept) (See Sample)

Meeting #1: Conceptual Proposal Review

1. Project description and design narrative (see sample)
2. Project zoning summary (see sample)
3. Basic site analysis describing appropriateness of proposed use for the subject property
4. Context map showing property and surrounding uses (google maps minimum) (see sample)
5. Photos of the site and surrounding area up to 500 ft from property

6. Conceptual site plan(s) (see sample)
7. Development program (e.g. residential, live/work, retail, office, number of parking stalls) (see sample)

Meeting #2: Design Guidance Review

A. Context Analysis including:
   1. aerial photo (Google Earth Image is sufficient) and streetscape photos with streets and site boundaries indicated.
   2. vicinity map showing existing conditions including adjacent structures, uses and zoning up to 500 feet from property lines.
   3. documents, photos, maps etc., that respond to Chapter 3: Context Analysis Pgs. 17-20 of the Design For Bainbridge 2019
   4. applicant shall refer to Context Analysis (C-1 through C-6) in the Design for Bainbridge book.

B Design Standards Worksheet (DRAFT) previously recommended during meeting #1.
   Review Design for Bainbridge Standards:
   1. Site Design Standards (S-1 through S-5)
   2. Public Realm Standards (P-1 through P-6)
   3. Building Design Standards (B-1 through B-5)
   4. Landscape Standards (L-1 through L-6)

C. Preliminary Drawings:

A. Site plan:
   1. roadways, traffic patterns, parking areas, vehicular and pedestrian circulation on the site, trails, facilities, proposed infrastructure
   2. estimates of square footage provided/allowed for commercial space and/or residential units.
   3. estimates of landscape area provided/required.
   4. estimates of parking spaces provided/required.
   5. location and description of mechanical, accessory or trash structures on site.
   6. location of adjacent buildings and features located on the site perimeter within 100 feet
   7. relationship of proposed development to significant site features and trees
   8. all known easements on-site and within 100 feet of property lines shall be identified
   9. all known utilities above and below ground shall be identified.
   10. separate drawing showing color code uses proposed including but not limited to buildings, landscaping, community spaces, natural areas, and other uses.

B. Landscape plan including:
   1. streetscape and landscape elements
   2. bike racks, benches, fire pits, outdoor playground areas.
   3. list of plant materials used.

C. Building elevations (all four sides of proposed building) showing relative scale to neighboring properties

D. Floor Plan(s) includes:
1. ground floor/ entrance plan(s), showing the ground floor uses.
2. roof plan of new structures
3. locations of entrances, outdoor areas, and vehicular access to the structure.
4. building locations, courtyards, setbacks.

E. Site Sections include:
1. site sections extending to adjacent buildings within 100 feet of the property line.
2. section through the most critical area of the structure(s) with property lines, preliminary floor to floor heights, overall height, and spot elevations noted.

F. Building Elevations include:
1. eye level perspective from major street location.
2. elevations of each structure and of adjacent structures in context.
3. identification and discussion of material and color selections.identification and discussion of mechanical screens and venting locations.

G. Preliminary Axiometric drawings include:
1. aerial perspective depicting entire project and adjacent buildings in context.

D. Residential Subdivisions: Documentation of the four-step design process (BIMC 2.16.070.D, Short Subdivisions or BIMC 2.16.125.D, Preliminary Long Subdivisions)

Meeting #3: DRB Review and Recommendation

1. Completed Design Standards Worksheet with comments from both the applicant and DRB.

2. Context Analysis (from Design Guidance meeting) :

3. Full Summary and rationale for all requested departures from Design Standards identified in Design for Bainbridge 2019.

4. Final Drawings and Plans Required:
Move items below to the right
A. Site Plan
1. all streets and property lines with dimensions.
2. final roadways, parking areas, vehicular and pedestrian circulation on the site.
3. final location and description of mechanical, accessory or trash structures on site.
4. location of adjacent buildings and features located on the site perimeter.
5. significant existing trees that are to be saved on the site and basic landscape features.
6. adjacent buildings and features within 500 feet of the site or across the street.

7. final square footage provided/allowed for commercial space and/or residential units.
8. final landscape area provided/required.
9. final parking spaces provided/required.

B. Landscape Plan Includes:
1. streetscape and landscape elements
2. bike racks, benches, fire pits, outdoor playground areas.
3. final selection of existing trees and plants incorporated into the landscape design.

C. Floor Plan (s) includes:
1. final Plans showing uses for all floors.
2. final design for all entrances, outdoor areas, and vehicular access to the structure.
3. final design for building modulation indicating setbacks with dimensions and changes in material.
4. adjacent building locations, courtyards, setbacks, ground floor uses and section references.

D. Sections includes:
1. final transverse and longitudinal sections through the entire site extending 100 feet past the property line to adjacent buildings or buildings across a roadway. (These sections can include the "b" sections that follow.)
2. final transverse and longitudinal sections through each structure with property lines, floor to floor heights, overall height, and spot elevations noted.

E. Elevations include:
1. final elevations of each structure including exterior mechanical screens, venting locations and adjacent structures in context.
2. final material and color notes as needed for clarification.
3. scale figures and transparent street trees or planned landscaping.
4. final roof plan of new structures and their proposed entrances.

F. Renderings: Change below to 1, 2, 3 and move left
   A. eye level perspective renderings from two opposite street locations.
   B. at least one depicting entire project with adjacent buildings in context.
   C. optional: video fly-through project

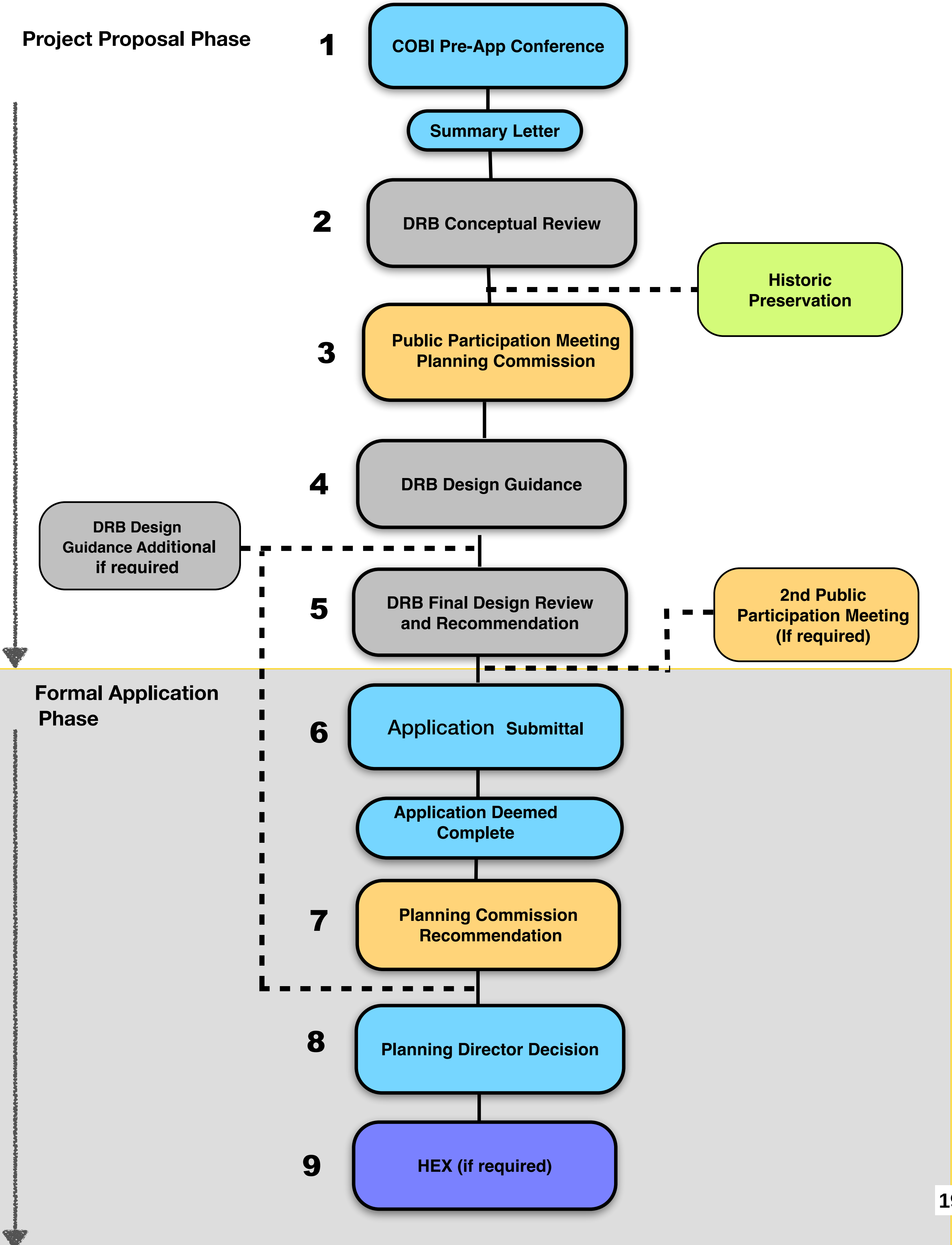
G. Preliminary Exterior Lighting Plan:
1. final location of exterior lights and indication of light spillage at night.
2. description, images, color and finish of selected fixtures.

H. Materials and Colors: Change below to 1, 2, 3
3. Final color and material board(s) with accurate reference to drawings.
4. Final landscape color and material board(s) with accurate reference to drawings.
5. Critical materials should have samples provided for the review meeting.

Revision: Insert new Appendix B [Placeholder for graphic illustrations]

Appendix B: Sample Site Plans and Building Elevations

COBI PROJECT REVIEW CHART. DRAFT 5.18.21



RESOLUTION NO. 2021-07

A RESOLUTION of the City of Bainbridge Island, Washington, to amend the City's public participation program.

WHEREAS, in 2001, the City Council adopted Resolution No. 2001-11 establishing a voluntary public participation program in order to inform citizens of proposed projects in their neighborhood, and to provide the development community with an awareness of public concerns; and

WHEREAS, in 2010, the City Council adopted Resolution No. 2010-32 to adopt a mandatory public participation program; and

WHEREAS, in 2018, the City Council approved Ordinance No. 2018-08, which moved public participation meetings from special city meetings, sometimes within neighborhoods to Planning Commission meetings; and

WHEREAS, in 2020, the City Council directed staff to work with the Planning Commission to modify the Pre-application process; and

WHEREAS, after holding public participation meetings for a few years, the Planning Commission identified the need to amend the public participation program to include a broader audience; to solidify their role in the process, and to ensure that the community is receiving accurate and timely information; and

THE CITY COUNCIL OF THE CITY OF BAINBRIDGE ISLAND, WASHINGON, DOES RESOLVE AS FOLLOWS:

The City Council of the City of Bainbridge Island, Washington, approved the amendment to the public participation program. The program will be administered by the Department of Planning and Community Development in coordination with the Planning Commission and is described in Exhibit A attached hereto and made a part hereof by the reference.

PASSED by the City Council this X day of June, 2021.

APPROVED by the May this X day of June, 2021.

ATTEST/AUTHENTICATE:

____

Christine Brown, City Clerk

FILED WITH THE CITY CLERK:
PASSED BY THE CITY COUNCIL:
RESOLUTION NO: 2021-07

THE CITY OF BAINBRIDE ISLAND PUBLIC PARTICIPATION PROGRAM

Purpose: The program is intended to bring developers, community members, City Staff and the Planning Commission together in the pre-application process, so that the residents and Planning Commission can learn about any proposed developments in their community and the applicant can be aware of their concerns, if any.

Format: The meetings are to be held at a Planning Commission meeting. The Planning Commission provides opening remarks, followed by the staff planning lead describing the project and the land use review process. Following the Planning Commission and Staff introductions, the applicant provides an overview with visuals of the project. The meeting is then followed by questions and comments from the public and responses from the applicant and/or staff. Following the questions & answer, the Planning Commission may ask questions and provide comments and/or suggestions based on the Municipal Code and the Comprehensive Plan.

Notice: The City shall provide a notice with a brief description of the proposal and make site plans and the pre-application letter available to the public. The City shall use various, available methods to provide notice to reach and engage the broader community to include at a minimum 1) a 500' mailing from the project site, and 2) advertisement in the local paper and 3) other popular means employed by the City including but not limited to the City Manager Report (or its successor) and the City's primary calendar. The City shall also notify the Design Review Board members of the meeting date.

Post Meeting: The meeting video and/or minutes shall be made available after the meeting to the public.

Need for Additional PPM: If there are substantial changes made to the project after a public participation meeting, the applicant may be required to attend an additional public participation meeting. The decision shall be made by the director in coordination with the planning commission chair.

EXHIBIT A

CITY OF
BAINBRIDGE ISLAND

Planning Commission Special Meeting Agenda Bill

MEETING DATE: May 27, 2021 **ESTIMATED TIME:** 45 Minutes

AGENDA ITEM: (7:20 PM) - AT&T Telecom Facility Major Conditional Use Permit and Wireless Communication Facility (PLN51880A CUP WCF)

AGENDA CATEGORY: Review and Recommendation

PROPOSED BY: Ellen Fairleigh

PREVIOUS PLANNING COMMISSION REVIEW DATE(S): N/A- Public Participation Meeting held during the February 25, 2021 Planning Commission Meeting

PREVIOUS COUCIL REVIEW DATE(S): N/A

RECOMMENDED MOTION:
Review and Recommendation

SUMMARY:
BIMC 2.16.110 requires that the Planning Commission review the application prior to recommendation by the Director of Planning and Community Development. The Hearing Examiner is the final decision maker.

BACKGROUND: Planning Commission Review and Recommendation for the proposed Wireless Communication Facility on NE Baker Hill Road.

The Staff Report and exhibits can be found on the public portal under the Note titled Staff Report and Exhibits to Planning Commission using this link:

https://ci-bainbridgeisland-wa.smartgovcommunity.com/PermittingPublic/PermitDetailPublic/Index/c515354d-546b-4626-ac50-acdc0021bdfe?_conv=1

ATTACHMENTS:

CITY OF BAINBRIDGE ISLAND

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

STAFF REPORT

AT&T Telecom Facility
File #: PLN51880A CUP/WCF

Prepared by: Ellen Fairleigh, Associate Planner

Date: May 27, 2021

Request:	Major Conditional Use Permit (CUP) – PLN51880A CUP Wireless Communication Facilities (WCF) – PLN51880A WCF
Applicant:	Smartlink Group on behalf of AT&T
Property Owner:	Kitsap Public Utility District (KPUD)
Location:	NE Baker Hill Rd.
Tax Parcel:	042402-1-054-2005

Project Description: AT&T proposes to install an unmanned telecommunications facility on an existing 35'7" KPUD water tower. The proposal includes the attachment of 12 antennas, 18 remote radio units, two surge protectors, and fiber/DC cables. Ground equipment includes two equipment cabinets on a 20'x6' concrete pad and a retaining wall within the existing KPUD facility.

Part 1: Process

1. **Land Use Review:** Pursuant to BIMC 18.10.030.C, this proposal is a WCF that requires review and approval by the City Hearing Examiner.

2. **Environmental Review:** The project is exempt from State Environmental Policy Act (SEPA) review as provided in Washington Administrative Code (WAC 197-11-800(25)(a)(i)).

3. **Design Review Board (DRB) Process**: This project is exempt from Design Review Board (DRB) review in accordance with BIMC 2.14.040.D.1 which states that applications related to utility facilities are exempt from design review board consideration. The definition of "utility" in BIMC 18.36.030 Definitions includes structures related to communication signals.

4. **Planning Commission Process:** As provided in BIMC 2.16.110, the Planning Commission shall review the application prior to recommendation by the Department of Planning and Community Development Director. The Planning Commission shall review the project for consistency with applicable design guidelines, decision criteria, and the Comprehensive Plan. The Planning Commission shall consider the application at a public meeting where public comments will be taken and forward its recommendation to the Director.

5. **Consolidated Review Process:** Through the Master Land Use Application, the applicant requested consolidated permit review of the Wireless Communication Facilities (WCF) and Major Conditional Use Permit (CUP) in accordance with BIMC 2.16.170. A consolidated project permit application shall follow the application and notice procedure that results in the most extensive review and decision process.

6. **Decision Process:** Pursuant to BIMC 2.16.110.E, the Director shall review the application materials, staff report, and the recommendation of the Planning Commission and shall prepare a report to the Hearing Examiner recommending approval, approval with conditions, or disapproval of the application. The Planning Commission's recommendation shall hold substantial weight in the consideration of the application by the Director. Any deviation from that recommendation shall be documented in the Director's report. The Hearing Examiner shall consider the application materials and the Director's recommendation at a public hearing. The Hearing Examiner shall make compliance with the recommendation of the Planning Commission a condition of approval, unless the Hearing Examiner concludes that the recommendation reflects inconsistent application of design guidelines or any applicable provisions of this code, exceeds the authority of the Planning Commission, conflicts with SEPA conditions or other regulatory requirements applicable to the project or conflicts with requirements of local, state, or federal law.

7. **Appeal Process:** Pursuant to BIMC 2.16.020.R.2, the decision of the Hearing Examiner shall be final unless, within 21 days after issuance of a decision, a person with standing appeals the decision in accordance with Chapter 36.70 RCW or its successor.

Figure 1 – Proposed Site Plan

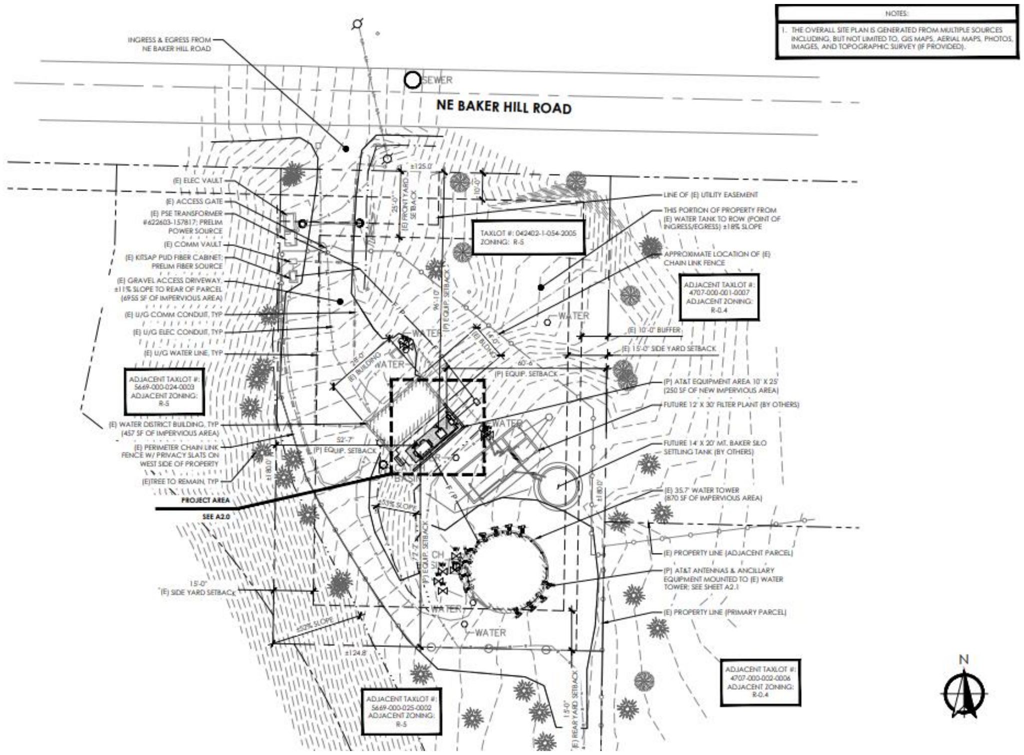
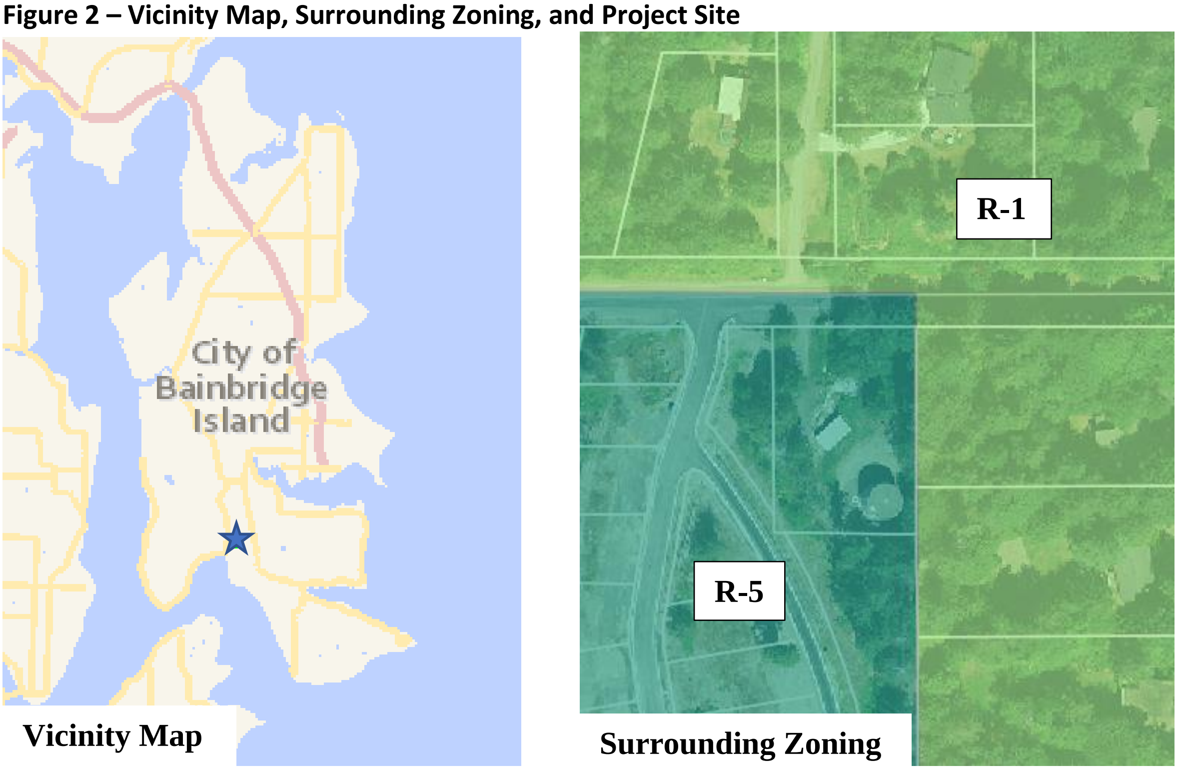


Figure 2 – Vicinity Map, Surrounding Zoning, and Project Site



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Part II: General Information and Site Characteristics

Basic Information	
Zoning District	R-5
Lot Area	0.52 acres or 22,500 square feet per survey
Soils and Terrain	Soils consist primarily of Cathcart silt loam with 15-30% slopes.
Critical Areas	The property contains 15-39% slopes and small areas of 40% or greater slopes near the existing building and in the southwest corner.
Existing Development	The subject parcel is currently developed with a water tank, utility building, and supporting vaults/cabinets. There is an existing chain link fence around the development on the property which includes privacy slats on the west side.
Access	The subject parcel is currently accessed from NE Baker Hill Road. No change to the access is proposed. There is a locked gate at the access from NE Baker Hill Road.
Public Services and Utilities	
Police	City of Bainbridge Island Police Department
Fire	Bainbridge Island Fire District
Schools	Bainbridge Island School District
Water	KPUD- South Bainbridge Water

Sewer	N/A
Storm Drainage	N/A- dispersion

Part III: Background and Application History

Background: Existing development and use on the property is for a primary utility for a Kitsap Public Utility District (KPUD) water system. The existing building on site was permitted in 2004 (City file no. BLD12803MIS) as a pump house. There is currently no wireless equipment on site. The applicant previously submitted similar applications to install a WCF on the property in June 2020 (City file no. PLN51880 CUP/WCF). These applications were placed on hold by the applicant in August 2020 due to a pending design change, and subsequently voided by the City due to inactivity in October 2020.

Date & Action	Summary
February 23, 2021 Pre-Application Conference	Permit process and requirements were discussed between the applicant and staff.
February 23, 2021 Application Submitted	Major Conditional Use and Wireless Communication Facilities application.
February 25, 2021 Public Participation Meeting	Comments and concerns were related to noticing, proposed signage, construction parking and traffic, and the power and RF emissions of the proposed equipment.
March 17, 2021 Notice of Incomplete Application	Application deemed incomplete.
March 22, 2021 Applicant Response to Notice of Incomplete Application	Applicant responds to Notice of Incomplete Application with requested information.
March 24, 2021 Notice of Complete Application	Application deemed complete.
April 19, 2021 & May 13, 2021 Site Visit	City staff site visit.

Part IV: Comprehensive Plan Goals and Policies

The Comprehensive Plan designation for the site is Urban Residential -5 and is identified as being part of Lynwood Center in the Lynwood Center Subarea Plan. The guiding principles, goals and policies of the Comprehensive Plan, along with implementing regulations in the Municipal Code, are used to evaluate the proposal and weigh the project benefits and impacts. The following goals and policies apply to the development proposal:

Elements	Goals and Policies
Land Use Element	**Island-Wide Conservation – Policy LU-4.1:** Focus development and redevelopment on the Island over the next fifty years in designated centers that have or will have urban levels of services and infrastructure while increasing conservation, protection

	and restoration on the Island, including shorelines, especially where there is interaction between the fresh and saltwater environments.
	Designated Centers – Goal LU-6: Ensure a development pattern that is true to the Vision for Bainbridge Island by reducing the conversion of undeveloped land into sprawling development. Encourage improvement of aging or underutilized developments over development of previously undeveloped property.
	Designated Centers – Policy LU-6.1: Land use designations reflect the priority of Bainbridge Island to remain primarily residential and agricultural with nonresidential development concentrated in the designated centers.
	Standards for Neighborhood Centers – Policy LU 9.8: The Neighborhood Centers achieve a mix of neighborhood-scale businesses, public uses and housing which are compatible with the scale and intensity of the surrounding residential neighborhood and which minimize the impact of noise, odor, lighting, fire safety and transportation on the neighborhood.
Economic Element	**Infrastructure – Goal EC-2:** Provide sufficient and resilient infrastructure that is supportive of a healthy economy and environment, particularly telecommunications and electrical reliability.
	Infrastructure – Policy EC-2.2: Support infrastructure enhancement to accommodate new information technology and changing conditions.
	Infrastructure – Policy EC-2.3: Implement infrastructure and technology improvements around designated centers to provide enhanced service and to retain and attract business.
Utilities Element	**Telecommunication – Goal U-16:** Ensure adequate, cost effective, reliable, and environmentally responsible telecommunication service to the citizens of Bainbridge Island.
	Telecommunication – Policy U-16.2: Require the placement of cellular and/or wireless communication facilities in a manner that minimizes the adverse impacts on adjacent and surrounding land uses.
	Telecommunication – Policy U-16.3: Encourage major telecommunication utility providers to work with the City to identify potential sites for infrastructure and facility expansion to address future growth and development and meet the demands for additional utility service.
	Telecommunication – Policy U-16.4: Encourage all providers to serve all parts of the City equally.
	Telecommunication – Policy U-16.5: The City expects all providers to evaluate the capacity of their facilities regularly to ensure that new facilities are installed in a timely basis to meet new and future demand. Providers are expected to provide facilities to accommodate growth within the City.
	Telecommunication – Policy U-16.6: Pursue internet and cellular service of the highest standards for governmental and educational institutions, business and commerce and personal use.
	Telecommunication – Policy U-16.7: Require new development to have underground conduits suitable for existing and foreseeable new utilities such as cable and broadband.

Part V: Public Notice, Public Comments, and Agency Comments

1. **Public Notice and Public Comments**

Date & Action	Summary
April 2, 2021 Notice of Application/Hearing Published	21-day comment period
April 23, 2021 End of Comment Period	No public comments received; one has been carried forward from previous application.* *Three Public Comments were received for the previous applications (City file no. PLN51880 CUP/WCF). Staff emailed the three commenters near the end of the comment period to inform them that the applications had been re-submitted and inquire if they wanted their comment carried forward or would submit a new comment. One public comment is carried forward at the request of the commenter. The two other commenters did not respond.

a. Summary of Public Comment and Staff Response

Summary of Public Comment	Staff Response
The comment carried forward indicates support for the project citing concerns about poor coverage and the need for reliable 911 call access. The commenter notes that the benefits outweigh any potential environmental or visual impacts.	N/A

2. **Agency Comments**

Date & Agency	Summary of Comment
March 3, 2021 *Bainbridge Island Fire District (BIFD)*	The Fire Marshal recommends approval provided that any future development shall comply with all provision of the adopted Fire Code.
May 17, 2021 Kitsap Public Health District	The Kitsap Public Health District required a Commercial Building Clearance Exemption for this proposal, which was approved on May 10, 2021. On May 17, 2021, the Kitsap Public Health District completed review of the Conditional Use Permit with no comments.

Part VI: Land Use Code Analysis

1. **BIMC Title 16 Environment**

   a. BIMC 16.20 Critical Areas

      i. BIMC 16.20.130 Geologically hazardous areas

Geologically Hazardous Areas	Staff Analysis
Geologically hazardous areas include steep slopes	The property contains an area with steep slopes (40% or greater) behind the existing building. The proposed concrete pad and associated equipment is proposed in this area. However, the submitted survey indicates that the slope is approximately ten feet in height. The City Engineer determined that there are no geological hazards on site. Mapped steep slopes are man-made and less than ten feet high. Development is not proposed within the steep slope area in the southwest portion of the property.

2. **BIMC Title 18 Zoning**

   a. BIMC 18.09 Use Regulations

Proposed Use	Definition
All Other Wireless Communication Facilities	All other wireless communication facilities not meeting the definition of a Facility I or a Facility II are a conditional use in the R-5 district. * *Note: The City determined that BIMC Table 18.09.020 Use Table is not updated to reflect current wireless communication facility regulations. The errors in the Use Table are scheduled to be updated as part of Ordinance 2020-04 concerning telecommunications facilities. The written regulations in BIMC 18.10 govern.

   b. BIMC 18.10 Use Regulations – Wireless Communication Facilities

Prioritized Location	Proposed
The following sites are prioritized in order of preference for locating WCFs: (1) Co-location (2) Public buildings and structures located in nonresidential zones (3) Buildings and structures in business and commercial zoned sites used for research and development, commercial and business uses (4) Buildings and structures in	The WCF is proposed on a structure in a residential zone that is not used for residential purposes and is not a vacant lot. The applicant submitted a Radio Frequency Justification report*. The report notes a gap in 4G LTE service in the SW portion of the City and identifies a targeted service area. The report identifies a search ring to evaluate potential locations that meet the required antenna height to provide sufficient service to surrounding areas. The report evaluates two alternative sites and

residential zones not used entirely for residential use; provided, that WCFs will not be sited on vacant residential lots	determines that these sites will not provide the needed coverage in Lynwood Center. *Note: The Radio Frequency Justification Resort contains an incorrect site address in the upper right-hand corner of sheets 2-6. However, the site depicted is correct.

Development Standards	**Proposed**
WCFs must comply with applicable Federal Communications Commission (FCC), Federal Aviation Administration (FAA), state, and City regulations and standards	The applicant submitted documentation stating that the project as proposed is compliant with applicable FCC, FAA, state, and City regulations. The project is conditioned to meet this requirement.
Antennas shall be located, mounted and designed so that visual and aesthetic impacts upon surrounding land uses and structures are minimized, and so that they blend into the existing environment. Panel and parabolic antennas shall be screened from residential views and public rights-of-way	A view shed map analysis submitted by the applicant indicates that the antennas will be visible from eleven residential homes. The homes are located on the west side of Flying Goat Avenue NE and within Pleasant Beach Village. The number of homes is likely greater than eleven as the homes at Pleasant Beach Village are still under construction and some of the residences indicated on the view shed map analysis are duplexes. The applicant proposes to mitigate visual impacts by painting the antenna mounts, antennas, and associated equipment a neutral, non-reflective color that blends in with the surrounding vegetation. The proposed color is dark green. The applicant submitted photo simulations of the proposed antennas and equipment from several surrounding perspectives. The project is conditioned to meet this requirement.
WCFs must be screened or camouflaged employing the best available technology to minimize visibility of the facility from public streets and residential properties. (1) WCF shall be designed and placed or installed on the site in a manner that takes maximum advantage of existing trees, mature vegetation, and structures by: a. Using existing site features to screen the WCF from prevalent views; and b. Using existing site features as a background in a way that the WCF	The proposed antennas and associated equipment will be screened by existing mature vegetation, an existing fence with privacy slats on the west side of the property, topography, and the existing building on site. The applicant is proposing to paint the antennas, associated equipment, and ground equipment a dark green color to blend in with the surrounding vegetation and environment. The project is conditioned to meet this requirement.

blends into the background. (2) As a condition of permit approval, the City may require the applicant to supplement existing trees and mature vegetation to screen the facility. (3) A WCF shall be painted either in a nonreflective color or in a color scheme appropriate to the background against which the WCF would be viewed from a majority of points within its viewshed, and in either case the color must be approved by the City as part of permit approval.	
Equipment facilities shall be placed underground if applicable, or, if above ground, shall: (1) Be screened from any street and adjacent property with fencing, walls, landscaping, structures or topography or a combination thereof; and (2) Not be located within required building setback areas	The applicant responded that an underground vault for the equipment is not feasible because of an underground pipe and future KPUD development plans. The proposed equipment pad is located behind an existing building and is screened by the building, existing mature vegetation, topography, and a fence with privacy slats on the west side of the property. The proposed equipment pad is not within required building setback areas. The project meets this requirement.
Security fencing shall: (1) not exceed six feet in height (2) Be screened from view through the use of appropriate landscaping materials; and (3) If it is a chain-link fence, be camouflaged with appropriate techniques and painted or coated with a nonreflective color	There is an existing chain link fence installed by KPUD that surrounds the development on the property and includes privacy slats on the west side. No additional fencing is proposed as part of this proposal. This development standard is not applicable as no additional security fencing is proposed.
The City shall consider the cumulative visual effects of WCFs mounted on existing structures and/or located on a given permitted site in determining whether additional permits can be granted so as to not adversely affect the visual character of the city	There is currently no other wireless equipment located on this site.
A WCF shall not be used for mounting signs, billboards or message displays of any kind	Per the applicant, all proposed signage depicted in the submitted plan set will be placed on the equipment cabinets.

	The project is conditioned to meet this requirement.

c. BIMC 18.12 Dimensional Standards

Dimensional Standards	Required/Allowed	Existing/Proposed
Lot Coverage	25 percent	Proposed lot coverage is less than 25 percent and meets this standard.
Front Lot Line Setback	25 feet	The proposed development meets this standard.
Rear Lot Line Setback	15 feet	The existing water tower encroaches into the rear setback. Two of the proposed antennas appear to encroach up to approximately three feet into the rear setback. The project is conditioned to require that the antennas and associated equipment be shifted out of the setback as part of building permit review.
Side Lot Line Setback	5 feet minimum, 15 feet total	The proposed development meets this requirement.
Building/Structure Height	No standard for wireless communication facilities BIMC Table 18.12.020-2 Standard Lot Dimensional Standards for Residential Zone Districts includes an exemption under maximum building and structure height for nonresidential uses. The alternative height limit is evaluated based on compatibility with surrounding uses as determined by the proposal's consistency with the major conditional use permit decision criteria in BIMC 2.16.110.	The existing top of the water tower is 35.7 feet above existing grade. The proposed antennas and ancillary equipment will increase the overall height of the water tower by 20 feet to 55.7 feet above existing grade. The Radio Frequency Justification report submitted by the applicant states that a tip height of 55.7' is minimum necessary to meet AT&T's service objectives within the targeted service area. The report evaluates shorter tip heights and concludes that these heights will result in a reduction of coverage.

d. BIMC 18.15 Development Standards and Guidelines

i. BIMC 18.15.010 – Landscaping, Screening, Tree Retention, Protection and Replacement

Landscaping Requirement	Staff Analysis
Perimeter Landscape Buffer: Full	The subject property is Lot A of Short plat (SPT) 07-31-91-1.

screen, 25 ft. width **Roadside Buffer:** 25 ft. partial screen/15 ft. minimum **Parking Lot Landscaping:** No requirement **Tree Units:** The development parcel will contain at least the same number of tree units after the proposed development as it had before the development or redevelopment	A condition of the short plat requires a minimum 10-foot-wide buffer of shrubs and trees along the north and east sides of the subject parcel. Per the conditions of the short plat, trees naturally existing in the buffer and landscaped areas are required to be preserved. The subject property is bordered on the south and west sides by open space tracts that are part of the Plat of Pleasant Beach Village II, and by R-1 zoned single-family residential lots on the east side that are part of the Blakely Heights neighborhood. On behalf of KPUD, the applicant is requesting that no additional landscape buffer/planting be required due to the small size of the parcel, existing and planned development on site, and existing mature vegetation and topography. There is an existing gravel access lane along the west side of the subject property that continues partially along the southern perimeter behind the existing water tank. The water tower encroaches slightly within the 15-foot rear setback. Additionally, KPUD has future plans to install a filter plant and settling tank just north of the existing water tower near the east property line. The property frontage along NE Baker Hill Road includes existing equipment in the northwest corner and an access gate with some existing vegetation to the east of the gate. Some mature vegetation exists in these areas, most notably on adjacent properties. The existing fence includes privacy slats along the west side of the subject property. The gravel access lane, water tank, existing development and future KPUD development plans restrict opportunities for planting additional landscaping around the frontage and perimeter of the property. Staff is not recommending a requirement for any additional planting associated with this permit due to these restrictions and the existing mature vegetation on and adjacent to the site (Reference: Project Site aerial photo, p.4). There is no parking lot on the subject property and parking lot landscaping does not apply. No tree removal is proposed as part of this proposal, and the same number of tree units will exist on site after the development as before.

	The proposal is conditioned to maintain existing vegetation on the subject parcel in compliance with Short plat (SPT) 07-31-91-1 and that tree removal is not authorized as part of this development.

ii. BIMC 18.15.020 – Parking and Loading

Parking Requirements	Required/Allowed	Proposed
Other uses and special cases	Parking requirement established by the Director based on requirements indicated in BIMC Table 18.15.020-1	No parking requirement for this use. There is no office space or employees/visitors on site. Access to the site is restricted by a locked gate at the entrance. Applicant indicates that the use requires one vehicular visit every two to four weeks for routine maintenance. There is adequate room on site for one vehicle to enter and park. The project meets this requirement.

iii. BIMC 18.15.040 – Outdoor Lighting

Lighting Requirements	Required/Allowed	Proposed
Outdoor Lighting	Outdoor lighting shall comply with BIMC 18.15.040. All outdoor lighting fixtures and accent lighting shall be designed, installed, located and maintained such that there is no light trespass. Outdoor fixtures and accent lighting must be shielded and aimed downward.	A light is proposed mounted to the H-frame on the equipment pad to be used for night emergencies only. The project is conditioned to comply with outdoor lighting requirements.

iv. BIMC 18.18 – Design Standards and Guidelines

Design for Bainbridge	Staff Analysis
The applicant submitted responses to Design for Bainbridge standards via the Design for Bainbridge Worksheet	The project is exempt from Design Review Board (DRB) review in accordance with BIMC 2.14.040.D.1. Staff reviewed the submitted worksheet and determined that the design standards do not apply largely due to the scope and nature of the project. The project proposal is for wireless equipment on a site that is not accessible to the public. There are no wetland or streams on site, no tree removal is proposed, and no additional landscaping or buildings are proposed. Chapter 5 Street Types and Frontages is also not applicable because NE Baker Hill Rd. is not one of the identified Street Types on the key street maps.

Part VII: Decision Criteria

1. **BIMC 2.16.110.F Major Conditional Use Permit**

A conditional use may be approved or approved with conditions if:

Decision Criteria	Staff Analysis
a. The conditional use is consistent with applicable design guidelines in BIMC Title 18. The conditional use is compatible with the established and intended character of the neighborhood, considering factors that include, but are not limited to, hours of operation, the type of activities generated by the use, and the predictable levels of any adverse impacts; and	The conditional use is exempt from Design Review Board (DRB) review in accordance with 2.14.040.D.1. The applicant submitted responses to Design for Bainbridge standards via the Design for Bainbridge Worksheet. Due to the nature and scope of the project, staff determined that there are no applicable portions of Design for Bainbridge, with the potential exception of Chapter 5 Street Types and Frontages. Based on the street type maps, Chapter 5 is also not applicable as NE Baker Hill Road is not an identified Street Type. The proposal is for an unmanned Wireless Communication Facility (WCF) on a developed lot. The applicant submitted letters stating that the use is in compliance with all Federal and state regulations and standards. As conditioned, the proposed use complies with applicable City regulations. The conditional use is compatible with the site and with the intended character of the neighborhood.
b. The conditional use will not be materially detrimental to uses or property in the vicinity of the subject property; and	As conditioned, the use will not be materially detrimental to uses or property in the vicinity of the subject property.
c. The conditional use is consistent with the comprehensive plan and other applicable adopted community plans, including the Island-Wide Transportation Plan; and	The proposal seeks to enhance wireless infrastructure in a designated center on a developed lot. The proposal supports telecommunication coverage and reliability for both business and residential use. The City Development Engineer finds that the scope of the project is in compliance with the Island Wide Transportation Plan and no frontage improvements are recommended.
d. The conditional use complies with all other applicable provisions of the BIMC; and	As conditioned, the conditional use complies with all other provisions of the BIMC. The proposed height of 55.7' is the minimum necessary to meet AT&T's service objectives within the targeted service area. As conditioned, the proposed height is compatible with the surrounding uses through proposed measures to reduce the visual impacts of the antennas such as painting the antennas a dark green, non-reflective color and

	through existing site conditions such as topography and existing surrounding mature vegetation.
e. All necessary measures have been taken to eliminate or reduce to the greatest extent possible the impacts that the proposed use may have on the vicinity of the subject property; and	Recommended conditions of approval include painting the proposed antennas and associated equipment a dark green, non-reflective color to blend into the surrounding vegetation and landscape. Ground equipment is proposed to be screened by an existing fence with privacy slats, an existing building, topography, and existing vegetation. Tree removal is not proposed or authorized as part of this development, and Short Plat (SPT) 07-31-91-1 requires that trees naturally existing in the buffer and landscaped areas on the site are preserved.
f. Noise levels shall be in compliance with BIMC 16.16.020 and 16.16.040.A; and	The project is conditioned to meet this requirement. Additionally, the applicant submitted a noise survey dated January 14, 2021 by SSA Acoustics which concludes that the noise levels meet the 45 dBA limit as required by BIMC Chapter 16.16.
g. The streets and nonmotorized facilities as proposed are adequate to accommodate anticipated traffic; and	This proposal will generate one vehicle visit every two to four weeks for routine maintenance. The City Development Engineer finds that the streets and nonmotorized facilities are adequate to accommodate anticipated traffic.
h. The City Engineer has determined that the conditional use meets the following decision criteria: i. The conditional use conforms to regulations concerning drainage in Chapters 15.20 and 15.21 BIMC; and ii. The conditional use will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use of properties downstream; and iii. The streets, nonmotorized facilities, locations of the buildings, structures, and vehicular circulation systems as proposed align with and are otherwise coordinated with streets and nonmotorized facilities serving adjacent properties and are adequate, safe, efficient and consistent with the Island-Wide Transportation Plan; and iv. If a traffic study shows that the use will	The City Development Engineer finds that the proposal creates less than 800 square feet of new and replaced hard surfaces and is consistent with applicable regulations and standards as it pertains to surface stormwater drainage per BIMC 15.20 and 15.21, to include the submitted Stormwater Pollution Prevention Plan (aka Erosion Control Plan). The proposal will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use of properties downstream. The proposal aligns with the streets and nonmotorized facilities and is consistent with the Island Wide Transportation Plan. A traffic study is not required per Chapter 15.40 of the Bainbridge Island Municipal Code. The proposal does not rely on public water or

have an adverse impact on traffic, including nonmotorized traffic, the impact shall be mitigated as required by the city engineer; and v. If the conditional use will rely on public water or sewer services, there is capacity in the water or sewer system (as applicable) to serve the conditional use, and the required service(s) can be made available at the site; and vi. The conditional use conforms to the "City of Bainbridge Island Engineering Design and Construction Standards and Specifications" unless the city engineer has approved a deviation to the standards; and	sewer services. The site plan as submitted confirms to the City of Bainbridge Island Design and Construction Standards and Specifications.
i. The Kitsap public health district has determined that the conditional use meets the following decision criteria: a. The proposal conforms to current standards regarding domestic water supply and sewage disposal; or if the proposal is not to be served by public sewers, then the lot has sufficient area and soil, topographic and drainage characteristics to permit an on-site sewage disposal system; and b. If the health district recommends approval or disapproval of the application the health district shall so advise the director; and	The Kitsap Public Health District (KPHD) approved a Commercial Building Clearance Exemption for this proposal. KPHD has no comments on this proposal as it does not include on-site septic or water.
j. The Bainbridge Island fire department has reviewed the application and determined that the conditional use will ensure fire protection.	The Bainbridge Island fire department (BIFD) has reviewed the proposal and recommends approval with conditions. Recommended BIFD conditions are incorporated into this report.
k. If a major conditional use is processed as a housing design demonstration project pursuant to BIMC 2.16.020.S, the above criteria will be considered in conjunction with the purpose, goals, policies, and decision criteria of BIMC 2.16.020.S.	This criterion is not applicable.
l. A conditional use may be approved, or recommended for approval, with conditions. If no reasonable conditions can be imposed that ensure the permit meets the decision criteria of this chapter, then the permit shall be denied.	As conditioned the project meets the decision criteria.

Part VIII: Exhibits

1. PLN51880A CUP WCF Site Plan

2. PLN51880A CUP WCF Plan Set
3. PLN51880A CUP WCF Photo Simulations
4. PLN51880A CUP WCF View Shed Map Analysis
5. PLN51880A CUP WCF Radio Frequency Justification
6. PLN51880A CUP WCF Noise Survey by SSA Acoustics dtd January 14, 2021
7. PLN51880A CUP WCF Radio Frequency Compliance
8. PLN51880A CUP WCF Public Comment
9. PLN51880A CUP WCF Design for Bainbridge Worksheet
10. PLN51880A CUP WCF Site Photos

Part IX: Recommended Conditions of Approval

This report includes the standards of review, relevant Municipal Code and Comprehensive Plan provisions and provisions of other permitting agencies. The staff report includes findings based on evidence in the record. The project file contains the official record and basis for findings, including technical information and documentation.

Appropriate notice of application and hearing was provided. No comments were received during the comment period and one comment was carried forward from the previous applications.

The application is properly before the Planning Commission for recommendation.

Should the Commission recommend approval, staff suggests that the following conditions be considered:

Project Conditions

1. Except as modified by conditions of approval, the project shall be constructed in substantial conformance with the plan set dated January 20, 2021.

2. The WCF must comply with applicable Federal Communications Commission (FCC), Federal Aviation Administration (FAA), state, and City regulations and standards.

3. Prior to construction activity, the applicant shall obtain the appropriate permits from the City of Bainbridge Island, including but not limited to clearing, grading, right-of-way, sign, and building permits as applicable.

4. At the time of building permit submittal, the applicant shall submit plans and engineering with calculations that support loads caused by proposed attachment of antennas to the water tower. Connection details of attachment to water tower are also required.

5. Prior to building permit approval, the applicant shall submit a revised site plan depicting that the proposed antennas and equipment are outside of the required rear setback.

6. Existing significant trees and vegetation shall be retained on the property in compliance with Short plat (SPT) 07-31-91-1.

7. Tree removal is not authorized as part of this development. The applicant must maintain the same number of tree units after the proposed development as it had before the development.

8. The antennas and associated equipment shall be painted a dark green nonreflective color to blend in with the surroundings.

9. All activities on the property must comply with the noise regulations in BIMC Chapter 16.16.

10. Construction or installation of the WCF must commence within one year from the date of issuance of the land use permit, with opportunity for a one-year extension; otherwise, the permit shall be revoked without further action of the City and the rights and privileges appurtenant to the permit shall be void.

11. The permittee must allow co-location of proposed WCFs on the permittee's site, unless the permittee establishes to the City's satisfaction that co-location will technically impair the existing permitted use(s) to a substantial degree.

12. The permittee must maintain the WCF in a state of good repair and to maintain or replace, if necessary, vegetation and landscaping required as a condition of approving the permit.

13. The permittee shall notify the City of any sale, transfer, assignment of a site or WCF within 60 days of such event.

14. The permittee shall comply with all provisions of BIMC Chapter 18.10 Use Regulations-Wireless Communication Facilities, and all other applicable City ordinances and rules and regulations.

15. The WCF shall not be used for mounting signs, billboards or message displays of any kind.

16. All WCFs shall be operated in compliance with federal standards for EMF emissions. Within six months after the issuance of its operational permit, the applicant shall submit a project implementation report which provides cumulative EMF power densities of all antennas installed at the subject site. The report shall quantify the EMF emissions and compare the results with established federal standards. Said report shall be subject to review and approval by the City for consistency with the project proposal report and the adopted federal standards. If on review the City finds that the WCF does not meet federal standards, the City may revoke or modify the permit. The applicant shall be given a reasonable time based on the nature of the problem to comply with the federal standards. If the permit is revoked, then the facility shall be removed. This shall be a condition of the building permit.

17. All WCFs shall be operated in a manner that the WCF will not cause localized interference with the reception of area television or radio broadcasts, garage door openers, portable phones and other similar FCC approved devices. If on review of a registered complaint the City finds that the WCF interferes with such reception, the City may revoke or modify the permit. The applicant shall be given a reasonable time based on the nature of the problem to correct the interference. If the permit is revoked, then the facility shall be removed.

18. A WCF shall be removed within 90 days of the date the site's use is discontinued, it ceases to be operational, or the permit is revoked; or if the facility falls into disrepair and is not maintained, within 90 days of a notice from the City to effect repairs and maintenance to the satisfaction of the city. The operator of a WCF shall notify the City upon the discontinued use of a particular facility. Should the operator fail to remove the WCF as required herein, and the property owner fails to remove the WCF within 90 days of the date the City notifies the property owner to remove the WCF, then the WCF shall be a nuisance and subject to appropriate legal proceeding.

19. If any historical or archaeological artifacts are uncovered during excavation or construction, work shall immediately stop and contact the Department of Planning and Community Development and the Washington State Department of Archaeology and Historic Preservation shall be immediately notified. Construction shall only continue thereafter in compliance with the applicable provisions of law.

20. Outdoor lighting shall comply with BIMC 18.15.040 and verified at the time of building permit review. Compliance will require exterior lighting to be shielded and directed downward.

21. Proposed underground utilities (power/fiber, etc.) shall be located/routed to minimize site disturbances to the maximum extent feasible.

22. Use of soil sterilant to construct the lease area pad shall be strictly prohibited.

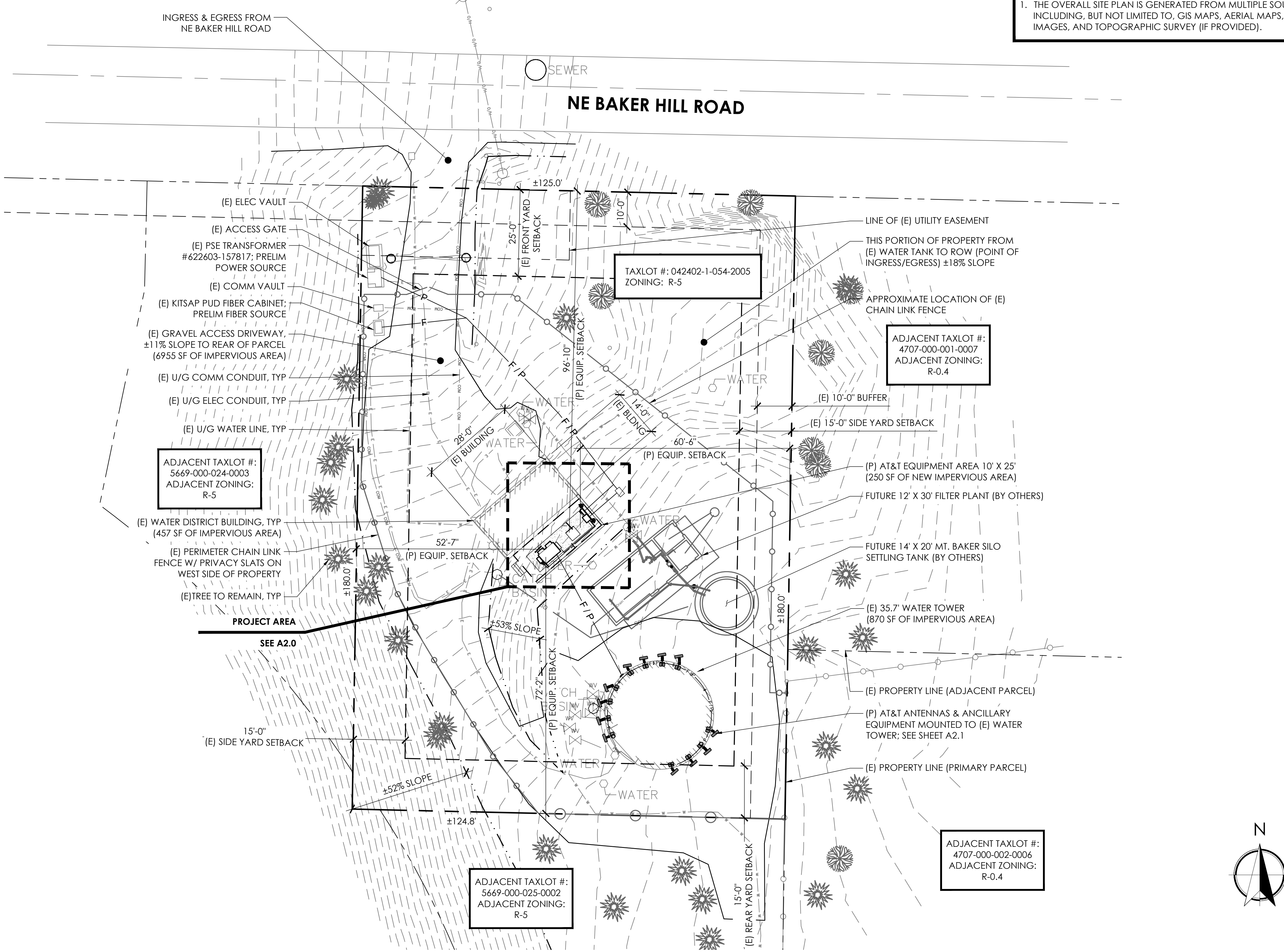
23. Any concrete retaining wall greater than 48" from base of footing to top of wall requires a separate building permit or structural engineering design/calcs included with any follow-on building permit.

24. The project as proposed is subject to Stormwater Minimum Requirement #2, Temporary Erosion and Sediment Control. During the approved work, erosion and sedimentation control devices shall be installed in accordance with best management practices, but ONLY as site conditions dictate. Applicant is responsible for 13 elements of WA state mandated erosion control plan per 2014 Stormwater Manual for Western Washington. Provide appropriate measures to prevent sediment track out onto COBI maintained roads. Protect all exposed soils to prevent airborne sediment (dust) or sediment laden water from leaving the site during construction.

25. Any future development shall comply with all provisions of the adopted Fire Code.

NOTES:

1. THE OVERALL SITE PLAN IS GENERATED FROM MULTIPLE SOURCES INCLUDING, BUT NOT LIMITED TO, GIS MAPS, AERIAL MAPS, PHOTOS, IMAGES, AND TOPOGRAPHIC SURVEY (IF PROVIDED).



1 OVERALL SITE PLAN

11 X 17 SCALE: 1" = 30'-0"
22 X 34 SCALE: 1" = 15'-0"

0' 15' 30' 60'

at&t mobility corp.

smartlink

CAPITAL DESIGN SERVICES
2101 4TH AVE E, SUITE 202
OLYMPIA, WA 98506
360.915.6750
WWW.CAPITALDESIGNSERVICES.COM

VECTOR ENGINEERS

DRAWN BY:	MS
CHECKED BY:	BU

DRAWING VERSION

VER.	DATE	DESCRIPTION
1	09/09/20	PRELIM LU DRAWINGS
2	11/13/20	CLIENT COMMENT
3	12/02/20	KPUD COMMENT
4	01/12/21	CLIENT COMMENT
5	01/20/21	FINAL LU DRAWINGS

LICENSER

PROJECT INFORMATION

BR0306
BAINBRIDGE
LYNWOOD CENTER

NE BAKER HILL ROAD
BAINBRIDGE ISLAND, WA 98110

SHEET TITLE

OVERALL SITE PLAN

SHEET NO.

A1.0

BR0306
BAINBRIDGE LYNWOOD CENTER

FA #: 15158127 / USID: 286275

NE BAKER HILL ROAD

BAINBRIDGE ISLAND, WA 98110

FINAL ZONING DRAWINGS

PROJECT SCOPE

1. PROPOSED INSTALLATION OF A TELECOMMUNICATIONS FACILITY ON AN EXISTING WATER DISTRICT PARCEL FOR AT&T.
2. PROPOSED INSTALLATION OF TWELVE (12) ANTENNAS, EIGHTEEN (18) RRHs, TWO (2) SURGE PROTECTORS, AND FIBER/DC CABLES ON AN EXISTING 35.7' WATER TOWER.
3. PROPOSED INSTALLATION OF TWO (2) EQUIPMENT CABINETS ON A NEW CONCRETE PAD BEHIND AN EXISTING WATER DISTRICT BUILDING, PAINTED TO MATCH EXISTING BUILDING.
4. PROPOSED INSTALLATION OF NEW 200A ELECTRICAL SERVICE, AND FIBER SERVICE.

SHEET INDEX

PROJECT CONTACTS

APPLICANT:
NEW CINGULAR WIRELESS PCS, LLC
19801 SW 72ND AVENUE #100
TUALATIN, OR 97062

WATER TOWER OWNER:
KPUD
PO BOX 1989
POULSBO, WA 98370
DAVID EPPERSON
PH: 626.7732

PROPERTY OWNER:
KPUD NO. 1
PO BOX 1989
POULSBO, WA 98370
DAVID EPPERSON
PH: 626.7732

ZONING/PERMITTING AGENT:
SMARTLINK
11232 120TH AVE NE, #204
KIRKLAND, WA 98034
NANCY SEARS
PH: 425.444.1434

SITE ACQUISITION AGENT:
SMARTLINK
11232 120TH AVE NE, #204
KIRKLAND, WA 98034
PATTY BARTLETT
PH: 425.270.9163

RF ENGINEER:
AT&T MOBILITY

CONSTRUCTION MANAGER:
AT&T MOBILITY
TOM LOGAN
PH: 253.709.0317

SURVEYOR:
AMBIT CONSULTING, LLC
245 SAINT HELENS AVE, SUITE 3A
TACOMA, WA 98402

Know what's below.
Call before you dig.

PROJECT INFORMATION

SITE NAME:	BR0306 BAINBRIDGE LYNWOOD CENTER	
ADDRESS:	NE BAKER HILL ROAD BAINBRIDGE ISLAND, WA 98110	
JURISDICTION:	CITY OF BAINBRIDGE	
TAX LOT #:	042402-1-054-2005	
PARCEL SIZE:	.52 AC	
ZONING:	R-5 RESIDENTIAL	
LATITUDE:	47° 36' 22.77" N	(47.606325°)
LONGITUDE:	-122° 32' 39.33" W	(-122.544258°)
GROUND ELEVATION:	144.0' AGL	
SOURCE:	1A CERTIFICATION	
(E) STRUCTURE TYPE:	WATER TOWER	
(E) STRUCTURE HEIGHT:	35.7'	
(P) AT&T GROUND LEASE AREA:	250 SQ FT	
(E) IMPERVIOUS AREA:	6955 SF (GRAVEL DRIVEWAY AND TURNOUT) 457 SF (WATER DISTRICT BUILDING) 870 SF (WATER TANK)	
TOTAL OF (E) IMPERVIOUS AREA:	8282 SF	
(P) IMPERVIOUS AREA:	250 SF (EQUIPMENT GRAVEL LEASE AREA	
OCCUPANCY:	U	
GROUP:	II-B	

LEGAL DESCRIPTION: SEC 04, TWP 24, RNG 2E (NE/4)(LOT A CITY OF BAINBRIDGE ISLAND SHORT PLAT RECORDED UNDER AUDITOR NUMBER 9209030073, VOLUME 8, PAGE 132, W-80) THAT PORTION OF GOVERNMENT LOT 5 SECTION 4, TOWNSHIP 24 NORTH, RANGE 2 EAST, W.M., IN KITSAP COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 4; THENCE ALONG THE EAST LINE OF SAID SECTION 4, S00*56'09 W 30.00 FEET TO A POINT ON THE SOUTH RIGHT OF WAY OF NE BAKER HILL ROAD AND THE TRUE POINT OF BEGINNING; THENCE CONTINUING S00*56'09 W 180.00 FEET; THENCE N88*42'08"W 125 FEET; THENCE N00*56'09"E 180 FEET TO A POINT ON SAID SOUTH RIGHT OF WAY OF NE BAKER HILL ROAD; THENCE S88*42'08 E 125.00 FEET TO THE TRUE POINT OF BEGINNING. SUBJECT TO AND TOGETHER WITH EASEMENTS, RESTRICTIONS AND RESERVATIONS OF RECORD.

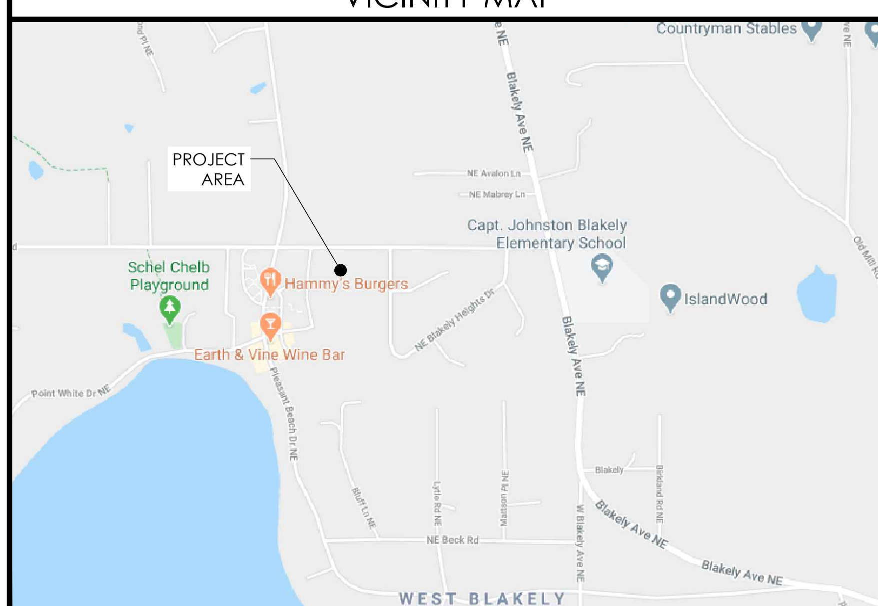
DRIVING DIRECTIONS

FROM AT&T OFFICE IN REDMOND, WASHINGTON:

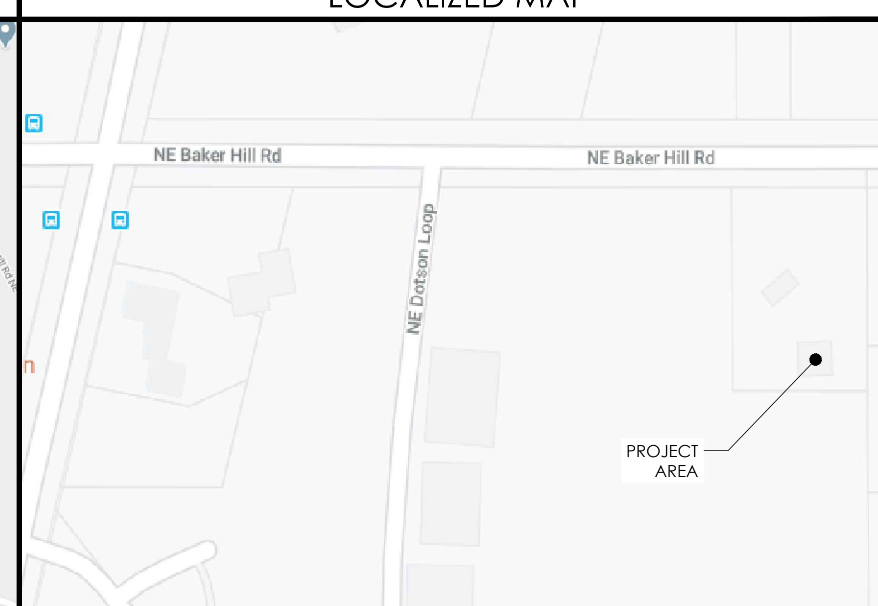
1. TURN RIGHT ONTO BEAR CREEK PKWY (453 FT)
2. USE THE LEFT 2 LANEES TO TURN LEFT AT THE 1ST CROSS STREET ONTO NE LEARY WAY (.3 MI)
3. USE THE MIDDLE 2 LANES TO TAKE THE RAMP ONTO WA-520 W (.4 MI)
4. MERGE ONTO WA-520 W (TOLL ROAD) (11.1 MI)
5. USE ANY LANE TO MERGE ONTO I-5 S TOWARD PORTLAND (2.5 MI)
6. USE THE RIGHT LANE TO TAKE EXIT 165A TOWARD JAMES STREET (.3 MI)
7. USE THE RIGHT LANE TO MERGE ONTO 6TH AVE (171 FT)
8. TURN RIGHT ONTO COLUMBIA ST (.3 MI)
9. CONTINUE STRAIGHT TO STAY ON COLUMBIA ST (.1 MI)
10. TURN LEFT ONTO ALASKAN WAY (.2 MI)
11. TURN RIGHT ONTO FERRY WAITING ZONE (.2 MI)
12. TURN LEFT ONTO SEATTLE FERRY TERMINAL (.2 MI)
13. TAKE THE SEATTLE - BAINBRIDGE FERRY TO BAINBRIDGE ISLAND (8.6 MI)
14. CONTINUE STRAIGHT ONTO FERRY DOCK (.2 MI)
15. CONTINUE ONTO OLYMPIC DR SE (423 FT)
16. TURN LEFT ONTO WINSLOW WAY E (.1 MI)
17. TURN RIGHT ONTO ERICKSEN AVE NE (.3 MI)
18. TURN LEFT ONTO WYATT WAY NE (1.1 MI)
19. CONTINUE ONTO EAGLE HARBOR DR NE (.2 MI)
20. TAKE SLIGHT RIGHT ONTO NE BUCKLIN HILL RD (.3 MI)
21. CONTINUE ONTO BLAKELY AVE NE (1.0 MI)
22. TURN RIGHT ONTO NE BAKER HILL RD, SITE WILL BE ON THE LEFT (.3 MI)

TOTAL TIME: 1 HRS 25 MINS
TOTAL MILES: 28.5 MILES

VICINITY MAP



LOCALIZED MAP



GOVERNING CODES

2015 INTERNATIONAL BUILDING CODE

2015 MECHANICAL SPECIALTY CODE

2015 INTERNATIONAL FIRE CODE

2017 NFPA 70 NATIONAL ELECTRICAL CODE

2015 WASHINGTON STATE ENERGY CODE

A.D.A. COMPLIANCE
INSTALLATION IS UNMANNED / NOT FOR HUMAN HABITATION. HANDICAP ACCESS IS NOT REQUIRED PER A.D.A.

APPROVALS

FINAL CONSTRUCTION DRAWINGS SIGN-OFF

** REVIEWERS SHALL PLACE INITIALS ADJACENT TO EACH REDLINE NOTE AS DRAWINGS ARE BEING REVIEWED.

CONSULTANT/PRINTED NAME	SIGNATURE	DATE
LANDLORD:		
SITE ACQ:		
PERMITTING:		
RF MGR:		
CONST MGR:		
OPS MGR:		
PROJ. MGR:		
COMPLIANCE:		
TRANSPORT:		

at&t mobility corp.

smartlink

CAPITAL DESIGN SERVICES
2101 4TH AVE E. SUITE 202
OLYMPIA, WA 98506
360.915.6750
WWW.CAPITALDESIGNSERVICES.COM

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LICENSER

PROJECT INFORMATION

BR0306
BAINBRIDGE LYNWOOD CENTER

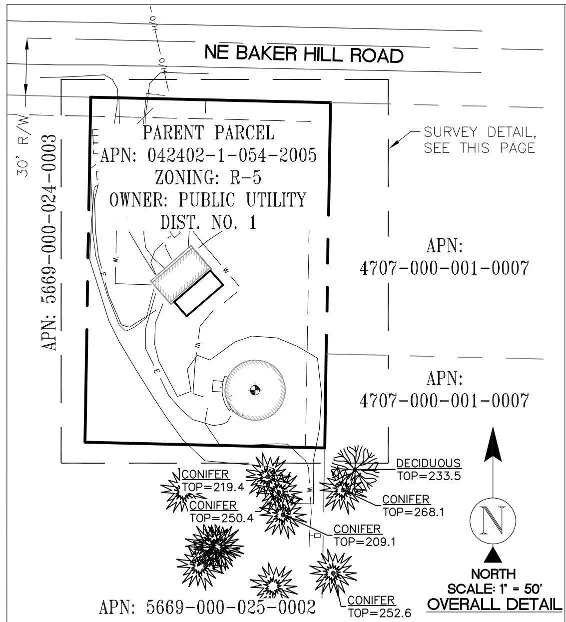
NE BAKER HILL ROAD
BAINBRIDGE ISLAND, WA 98110

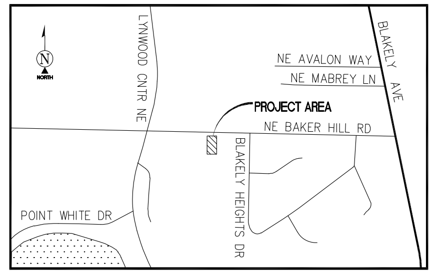
SHEET TITLE

TITLE SHEET

SHEET NO.

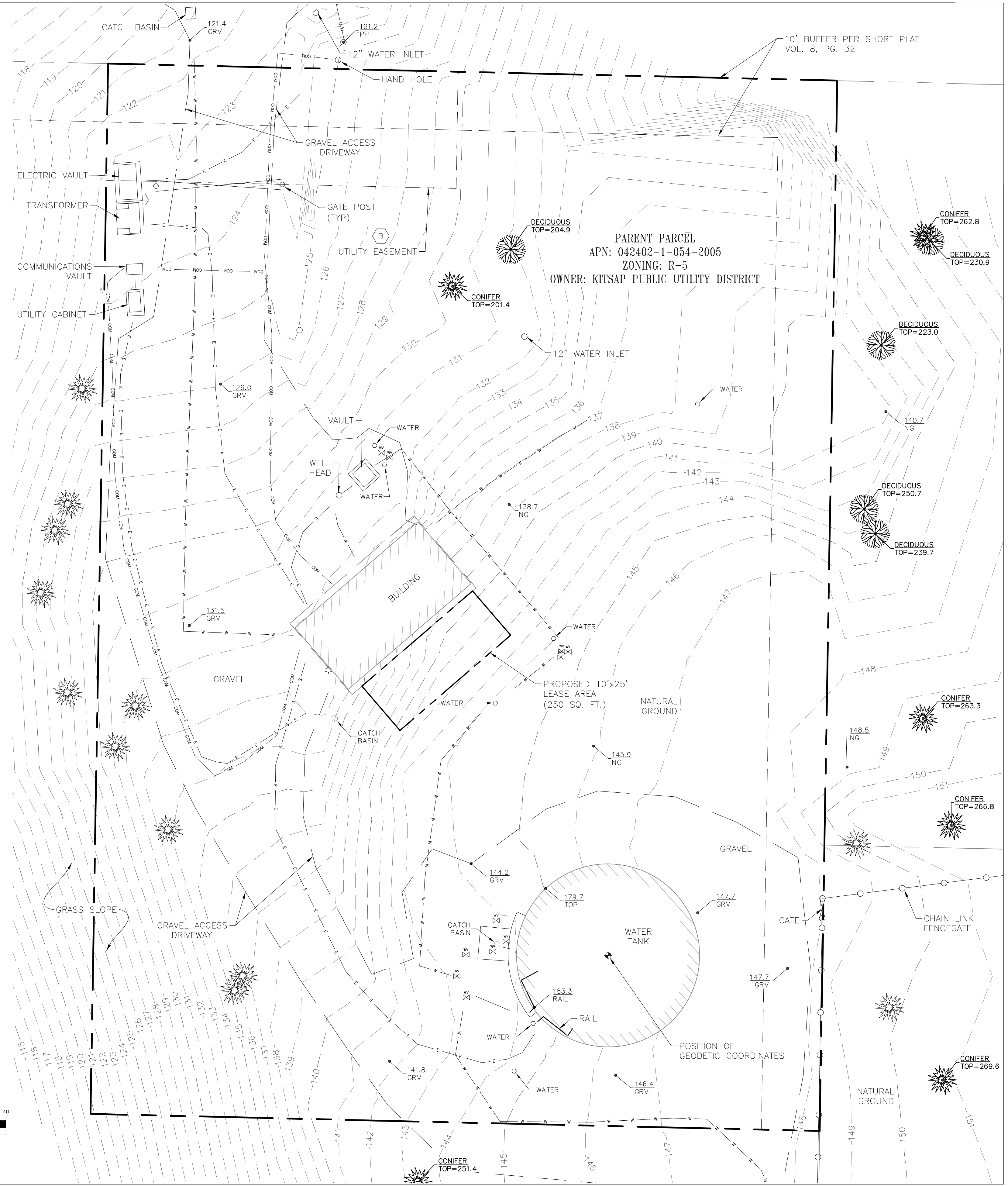
T1.0





VICINITY MAP
N.T.S.

POSITION OF GEODETIC COORDINATES
LATITUDE 47° 36' 22.77" (47.606325°) NORTH (NAD83)
LONGITUDE 122° 32' 39.33" (122.544258°) WEST(NAD83)
GROUND ELEVATION @ 144.0' (NAVD88)



SURVEY DATE
03/04/2020

BASIS OF BEARING
BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM WASHINGTON STATE PLANE COORDINATE ZONE NORTH, DETERMINED BY GPS OBSERVATIONS.

BENCHMARK
PROJECT ELEVATIONS ESTABLISHED FROM GPS DERIVED ORTHOMETRIC HEIGHTS BY APPLICATION OF NGS 'GEOID 12B' MODELED SEPARATIONS TO ELLIPSOID HEIGHTS DETERMINED BY REAL TIME KINETIC (RTK) GPS DATA PROCESSED ON THE WASHINGTON STATE REFERENCE NETWORK (WSRN). ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NAVD88 DATUM.

FLOOD ZONE
THIS PROJECT APPEARS TO BE LOCATED WITHIN FLOOD ZONE "X", ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP(S), MAP ID #53035C0381F, DATED 02/03/2017

UTILITY NOTES
SURVEYOR DOES NOT GUARANTEE THAT ALL UTILITIES ARE SHOWN OR THEIR LOCATIONS ARE DEFINITE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND DEVELOPER TO CONTACT 811 AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. REMOVAL, RELOCATION AND/ OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

SURVEYOR'S NOTES
SURVEYOR HAS NOT PERFORMED A SEARCH OF PUBLIC RECORDS TO DETERMINE ANY DEFECT IN TITLE ISSUED.

THE BOUNDARY SHOWN HEREON IS PLOTTED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OF THE PROPERTY.

ALL DISTANCES SHOWN HEREON ARE GRID DISTANCES.

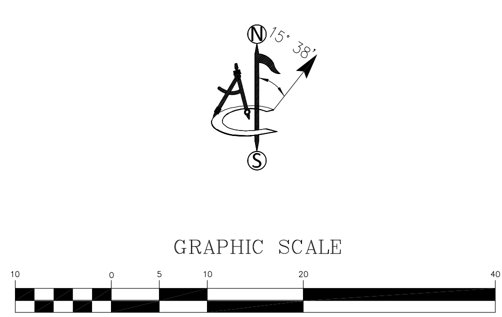
CONTOURS DERIVED FROM DIRECT FIELD OBSERVATIONS AND FOLLOWS THE CURRENT NATIONAL MAP STANDARDS FOR VERTICAL ACCURACY.

LESSOR'S LEGAL DESCRIPTION
LOT(S) A OF CITY OF BAINBRIDGE ISLAND SHORT SUBDIVISION NO. SPT07-31-91-1, RECORDED IN VOLUME 8, PAGE(S) 13 OF SHORT PLATS, UNDER AUDITOR'S FILE NOS. 9209030072 AND 9209030073, BEING A PORTION OF GOVERNMENT LOT 5 OF SECTION 4, TOWNSHIP 24 NORTH, RANGE 2, W.M., IN KITSAP COUNTY, WASHINGTON.

TOGETHER WITH: WATER RIGHTS, IF ANY, UNDER WATER RIGHTS CONTROL NOS: 46751; 46752; G1-23438C; G1-23638C; G1-23640C; G1-24392C; G1-23639C; AND S1-12933C.

LEGEND

PP	UTILITY POLE ELEV.		UTILITY POLE
AP	ASPHALT		LIGHT POLE
BLDG	TOP OF BUILDING		POSITION OF GEODETIC COORDINATES
CLF	CHAIN LINK FENCE		
NG	NATURAL GRADE	XXX.X NG	SPOT ELEVATION
	TREES		
	PINE TREES	WV	WATER CONTROL VALVE
			CHAIN LINK FENCE
			EXISTING BUILDINGS
	W W W		WATER LINES
	E E E		ELECTRIC LINES
	COM COM		COMMUNICATION LINES
			SUBJECT PROPERTY LINE
			ADJACENT PROPERTY LINE
			LEASE AREA LIMITS
			MAJOR CONTOUR INTERVAL
			MINOR CONTOUR INTERVAL



GRAPHIC SCALE
(IN FEET)
1 inch = 10 ft.

at&t

PROJECT INFORMATION:

BAINBRIDGE LYNWOOD
BR0306
NE BAKER HILL ROAD
BAINBRIDGE, WA 98110

KITSAP COUNTY

ORIGINAL ISSUE DATE:

03/10/2020

REV.:	DATE:	DESCRIPTION:	BY:
0	03/11/2020	PRELIMINARY/TITLE	RAG
1	12/02/2020	REVISE LEASE (C)	CK
2	12/22/2020	UPDATE	PD

PROJECT COORDINATION:

CAPITAL DESIGN SERVICES
2101 4TH AVE E, SUITE 202
OLYMPIA, WA 98506
360.991.1501
WWW.CAPITALDESIGNSERVICES.COM

SURVEY PREPARED BY:

410 E. SOUTHERN AVE.
TEMPE, ARIZONA 85282
PH. (480) 659-4072
www.ambitconsulting.us
ambit consulting

DRAWN BY:	CHK.:	APV.:
RAG	NS	XX

LICENSER:

PRELIMINARY

SHEET TITLE:

SITE SURVEY

SHEET NUMBER:

LS-1

EXCEPTIONS AND RECORD MATTERS

REFERENCE IS MADE TO THE OWNERSHIP AND ENCUMBRANCE REPORT FOR PARCEL ID: 042402-1-054-2005, ISSUED BY PRIORITY TITLE AND ESCROW, DATED 3/9/2020. ALL EASEMENTS CONTAINED WITHIN SAID TITLE REPORT AFFECTING THE IMMEDIATE AREA SURROUNDING THE LEASE HAVE BEEN PLOTTED.

ITEMS NO. 1, 2, 3, AND 5 ARE NOT A SURVEY MATTER AND ARE NOT PLOTTED.

4. (RIGHT OF WAYS)

A. RIGHT OF WAY GIVEN TO THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY RECORDED 4/19/1927 AT DOCUMENT NO. 160185 IN THE LAND RECORDS OF KITSAP COUNTY, WASHINGTON.
EXACT LOCATION INDETERMINATE - NOT SHOWN

(EASEMENTS)

B. EASEMENT BY SOUTH BAINBRIDGE WATER SYSTEM, INC., TO PUGET SOUND POWER & LIGHT COMPANY RECORDED7/18/1994 IN A.F. #9407180028 IN THE LAND RECORDS OF KITSAP COUNTY, WASHINGTON.
FIRST PORTION, AS SHOWN ON SURVEY -
SECOND PORTION, EXACT LOCATION INDETERMINATE

C. MUTUAL GRANT OF EASEMENT BETWEEN THE MANOR HOUSE ASSOCIATES, A LIMITED PARTNERSHIP, MIGNON JOHNSON, A SINGLE WOMAN, ASHER SEPARATE PROPERTY, MAURLEN G. BLOSSOM AND KATHLEEN BLOSSOM HUSBAND AND WIFE, AND JAMES G. PELLAND AND VIOLET H. PELLAND, HUSBAND AND WIFE RECORDED 5/5/1982 AT INSTRUMENT NO. 8205050088 IN THE LAND RECORDS OF KITSAP COUNTY, WASHINGTON.
DOES NOT AFFECT PARENT PARCEL - NOT SHOWN

D. EASEMENT AGREEMENT TO T.F. KOLLMAR AND GERALDINE N. KOLLMAR, HIS WIFE DATED 4/2/1962 IN DOCUMENT NO. 889440 IN THE LAND RECORDS OF KITSAP COUNTY, WASHINGTON.
DOES NOT AFFECT PARENT PARCEL - NOT SHOWN

E. EASEMENT AGREEMENT TO T.F. KOLLMAR AND GERALDINE N. KOLLMAR, HIS WIFE DATED 4/2/1962 IN DOCUMENT NO. 767989 IN THE LAND RECORDS OF KITSAP COUNTY, WASHINGTON.
NO PLOTTABLE EASEMENTS

F. EASEMENT TO THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, A CALIFORNIA COOPERATIVE RECORDED 8/26/1960 AT DOCUMENT NO. 733119 IN THE LAND RECORDS OF KITSAP COUNTY, WASHINGTON.
DOES NOT AFFECT PARENT PARCEL - NOT SHOWN

G. AGREEMENT AND EASEMENT BETWEEN EMANUEL OLSON AND EDNA JAMES OLSON TO LYNWOOD SANITARIUM, INC., RECORDED 12/16/1955 AT DOCUMENT NO. 630815 IN THE LAND RECORDS OF KITSAP COUNTY, WASHINGTON.
DOES NOT AFFECT PARENT PARCEL - NOT SHOWN

H. EASEMENT GIVEN TO THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, A CALIFORNIA CORPORATION RECORDED 2/13/1942 AT DOCUMENT NO. 354545 IN THE LAND RECORDS OF KITSAP COUNTY, WASHINGTON.
EXACT LOCATION INDETERMINATE - NOT SHOWN

I. EASEMENT DATED 6/24/1934 AT DOCUMENT NO. 222538 IN THE LAND RECORDS OF KITSAP COUNTY, WASHINGTON.
DOES NOT AFFECT PARENT PARCEL - NOT SHOWN

at&t

PROJECT INFORMATION:

BAINBRIDGE LYNWOOD
BR0306
NE BAKER HILL ROAD
BAINBRIDGE, WA 98110

KITSAP COUNTY

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DRAWN BY:	CHK.:	APV.:
RAG	NS	XX

LICENSER:

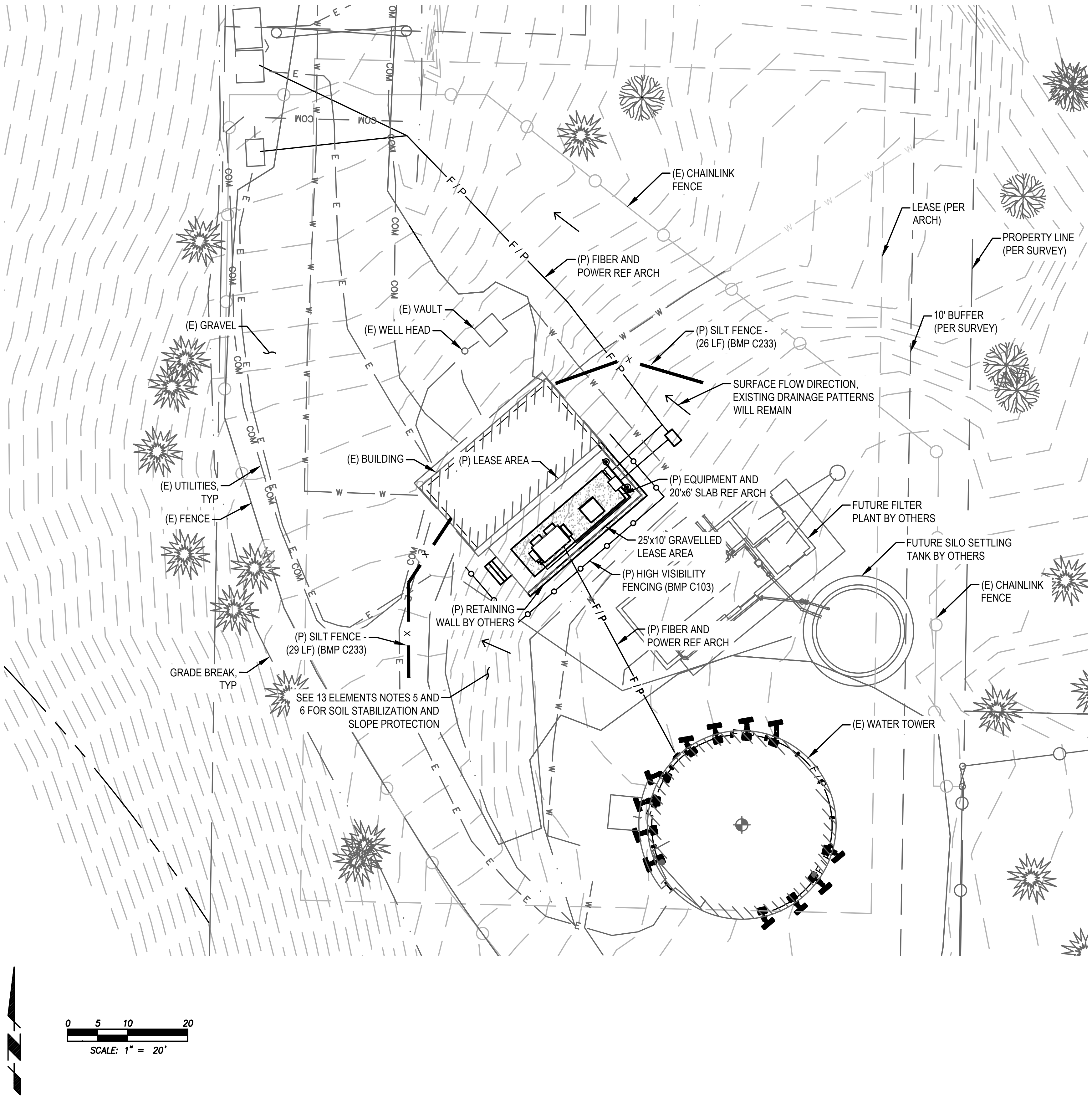
PRELIMINARY

SHEET TITLE:

NOTES

SHEET NUMBER:

LS-2



APPROXIMATE AREAS:

NEW IMPERVIOUS AREA = 250 SF

SUMMARY OF 13 ELEMENTS PROPOSED ON PROJECT:

1. **PRESERVE VEGETATION/MARK CLEARING LIMITS -** CLEARING LIMITS DELINEATED BY HIGH VISIBILITY PLASTIC FENCING (BMP C103), LIMIT SITE DISTURBANCE AND PRESERVE NATURAL VEGETATION (BMP C101)
2. **ESTABLISH CONSTRUCTION ACCESS -** N/A UTILIZED EXISTING GRAVEL SURFACE.
3. **CONTROL FLOW RATES -** INSTALL SILT FENCE (BMP C233).
4. **INSTALL SEDIMENT CONTROLS -** INSTALL SILT FENCE (BMP C233).
5. **STABILIZE SOILS -** UTILIZE TEMPORARY AND PERMANENT SEEDING (BMP C120) AND MULCHING (BMP C121) TO OFFSET ANY DISTURBANCES OCCURRING DURING AND AFTER CONSTRUCTION. USE PLASTIC SHEETING ON EXPOSED SOILS. (BMP C122)
6. **PROTECT SLOPES -** UTILIZE SILT FENCE (BMP C233), PLASTIC SHEETING (BMP C123), TEMPORARY AND PERMANENT SEEDING (BMP C120), MULCHING (BMP C121), AND MONITOR EXPOSED SOILS UNTIL VEGETATION IS ESTABLISHED.
7. **PROTECT DRAIN INLETS -** N/A DUE TO NO DRAIN INLETS ON SITE.
8. **STABILIZE CHANNELS AND OUTLETS -** N/A NO NEW CHANNELS OR OUTLETS ON SITE.
9. **CONTROL POLLUTANTS -** ALL CONCRETE WASHOUT SHALL BE CONTAINED AND HAULED OFF SITE.
10. **CONTROL DEWATERING -** N/A NO DEWATERING PROPOSED.
11. **MAINTAIN BMPs -** BMPs SHALL BE CHECKED WEEKLY AND AFTER STORM EVENTS, KEEP MATERIALS ON HAND (BMP 150).
12. **MANAGE THE PROJECT -** SCHEDULING OF THE PROJECT SHALL PREVENT SOILS FROM BEING EXPOSED FOR EXTENDED PERIODS OF TIME (BMP 162). ADDITIONAL SEDIMENT CONTROL MATERIALS (SILT FENCE, PLASTIC SHEETING) SHALL BE KEPT ON HAND TO REPAIR DAMAGED SEDIMENT CONTROLS (BMP C150).
13. **PROTECT LOW IMPACT DEVELOPMENT BMPs -** KEEP ADDITIONAL MATERIALS ON HAND FOR STORMWATER PREVENTION (E.G. SILT FENCES, SAND BAGS, PLASTIC SHEETING, HIGH VISIBILITY FENCING) (BMP 150). PROJECT SCHEDULE SHALL BE FOLLOWED TO REDUCE SOIL EXPOSURE (BMP 162).

STANDARD SWPPP NOTES:

1. APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES).
2. THE IMPLEMENTATION OF THIS ESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC BMPS IS THE RESPONSIBILITY OF THE APPLICANT UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
3. CLEARLY FLAG THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT FOR THE DURATION OF CONSTRUCTION.
4. CONSTRUCT THE ESC BMPS SHOWN ON THIS PLAN IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
5. THE ESC BMPS SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, UPGRADE THESE ESC BMPS AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
6. THE APPLICANT SHALL INSPECT THE ESC BMPS DAILY AND MAINTAIN THEM AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
7. INSPECT AND MAINTAIN THE ESC BMPS ON INACTIVE SITES A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT (I.E. A 24-HOUR STORM EVENT WITH A 10-YR OR GREATER RECURRENCE INTERVAL).
8. AT NO TIME SHALL THE SEDIMENT EXCEED 60-PERCENT OF THE SUMP DEPTH OR HAVE LESS THAN 6-INCHES OF CLEARANCE FROM THE SEDIMENT SURFACE TO THE INVERT OF THE LOWEST PIPE. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
9. INSTALL STABILIZED CONSTRUCTION ENTRANCES AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

at&t
mobility corp.

smartlink
11410 NE 122ND WAY, SUITE #102
KIRKLAND, WA 98034

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OLYMPIA, WA 98506
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WWW.CAPITALDESIGNSERVICES.COM

cushing
Civil Engineers
909 N BEECH STREET SUITE D PORTLAND, OR 97227
(503) 387-5331
www.cushing-engr.com

DRAWN BY: WG
CHECKED BY: DC

DRAWING VERSION

VER.	DATE	DESCRIPTION
1	1/19/21	C-SWPPP

LICENSER

DONALD JOHN CUSHING
STATE OF WASHINGTON
31527
REGISTERED
PROFESSIONAL ENGINEER
RENEWAL DATE 10/31/21

PROJECT INFORMATION

BR0306
BAINBRIDGE
LYNWOOD CENTER

NE BAKER HILL ROAD
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SHEET TITLE

C-SWPPP PLAN

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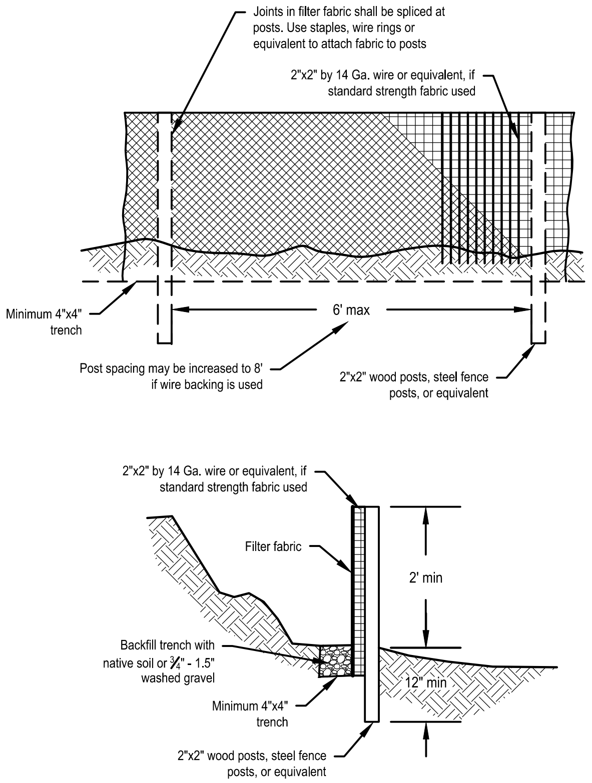
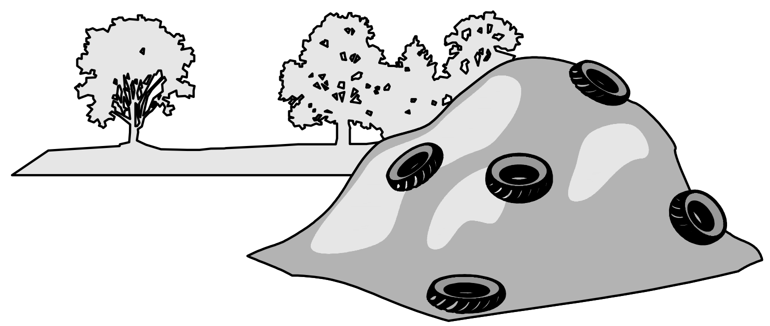
C1.0



1 SILT FENCE (BMP C233)



2 PLASTIC SHEETING (BMP C123)

at&t mobility corp.

smartlink
11410 NE 122ND WAY, SUITE #102
KIRKLAND, WA 98034

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cushing
Civil Engineers
909 N BEECH STREET SUITE D PORTLAND, OR 97227
(503) 387-5331
www.cushing-engr.com

DRAWN BY:	WG
CHECKED BY:	DC

DRAWING VERSION

VER.	DATE	DESCRIPTION
1	1/19/21	C-SWPPP

LICENSER

DONALD JOHN CUSHING
STATE OF WASHINGTON
31527
REGISTERED
PROFESSIONAL ENGINEER

RENEWAL DATE 10/31/21

PROJECT INFORMATION

BR0306
BAINBRIDGE
LYNWOOD CENTER

NE BAKER HILL ROAD
BAINBRIDGE ISLAND, WA 98110

SHEET TITLE

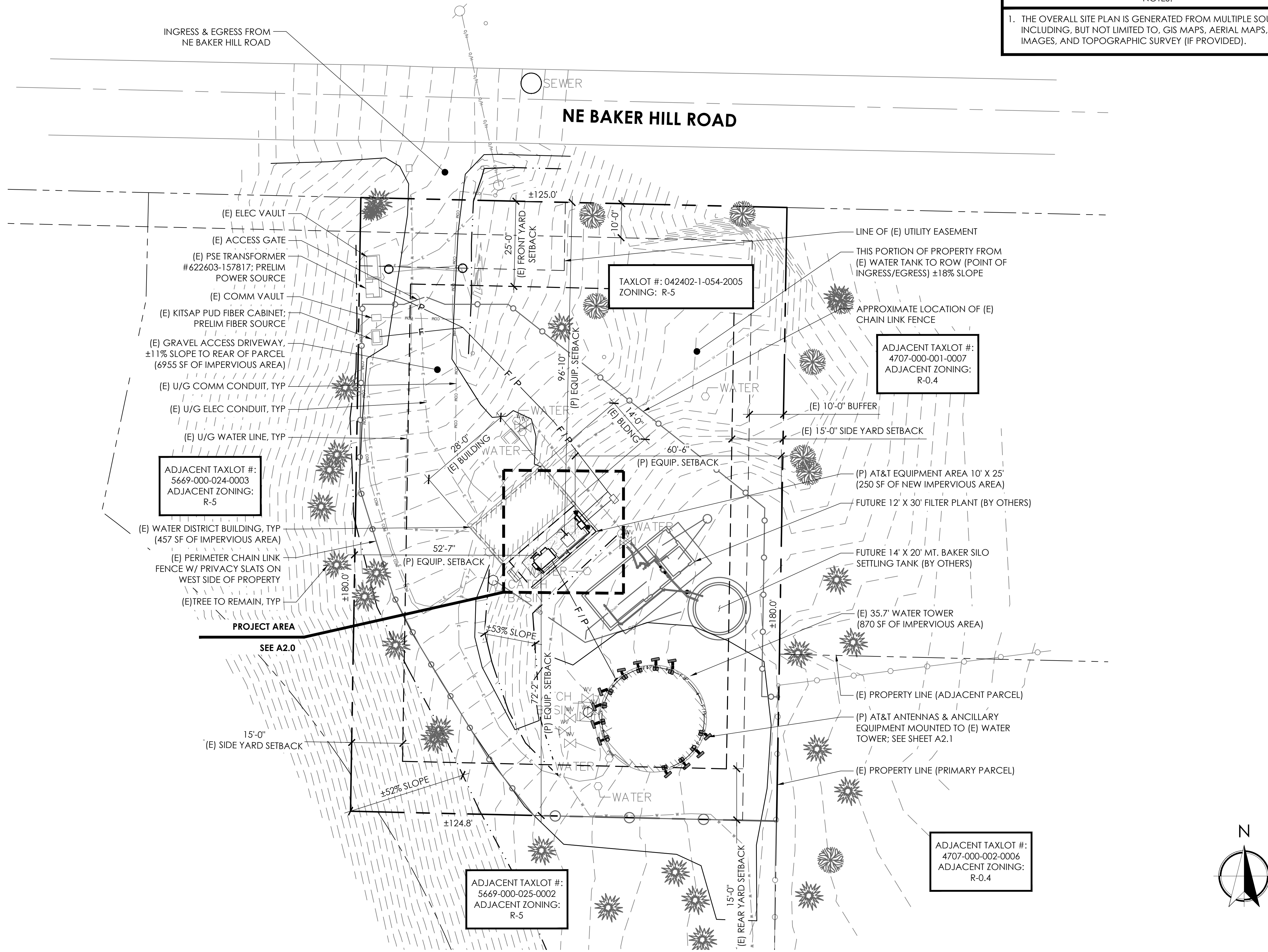
C-SWPPP DETAILS

SHEET NO.

C2.0

NOTES:

1. THE OVERALL SITE PLAN IS GENERATED FROM MULTIPLE SOURCES INCLUDING, BUT NOT LIMITED TO, GIS MAPS, AERIAL MAPS, PHOTOS, IMAGES, AND TOPOGRAPHIC SURVEY (IF PROVIDED).



1	OVERALL SITE PLAN

11 X 17 SCALE: 1" = 30'-0"

22 X 34 SCALE: 1" = 15'-0"

0' 15' 30' 60'

at&t mobility corp.

smartlink

CAPITAL DESIGN SERVICES
2101 4TH AVE E, SUITE 202
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360.915.6750
WWW.CAPITALDESIGNSERVICES.COM

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DRAWN BY:	MS
CHECKED BY:	BU

DRAWING VERSION

VER.	DATE	DESCRIPTION
1	09/09/20	PRELIM LU DRAWINGS
2	11/13/20	CLIENT COMMENT
3	12/02/20	KPUD COMMENT
4	01/12/21	CLIENT COMMENT
5	01/20/21	FINAL LU DRAWINGS

LICENSER

PROJECT INFORMATION

BR0306
BAINBRIDGE
LYNWOOD CENTER

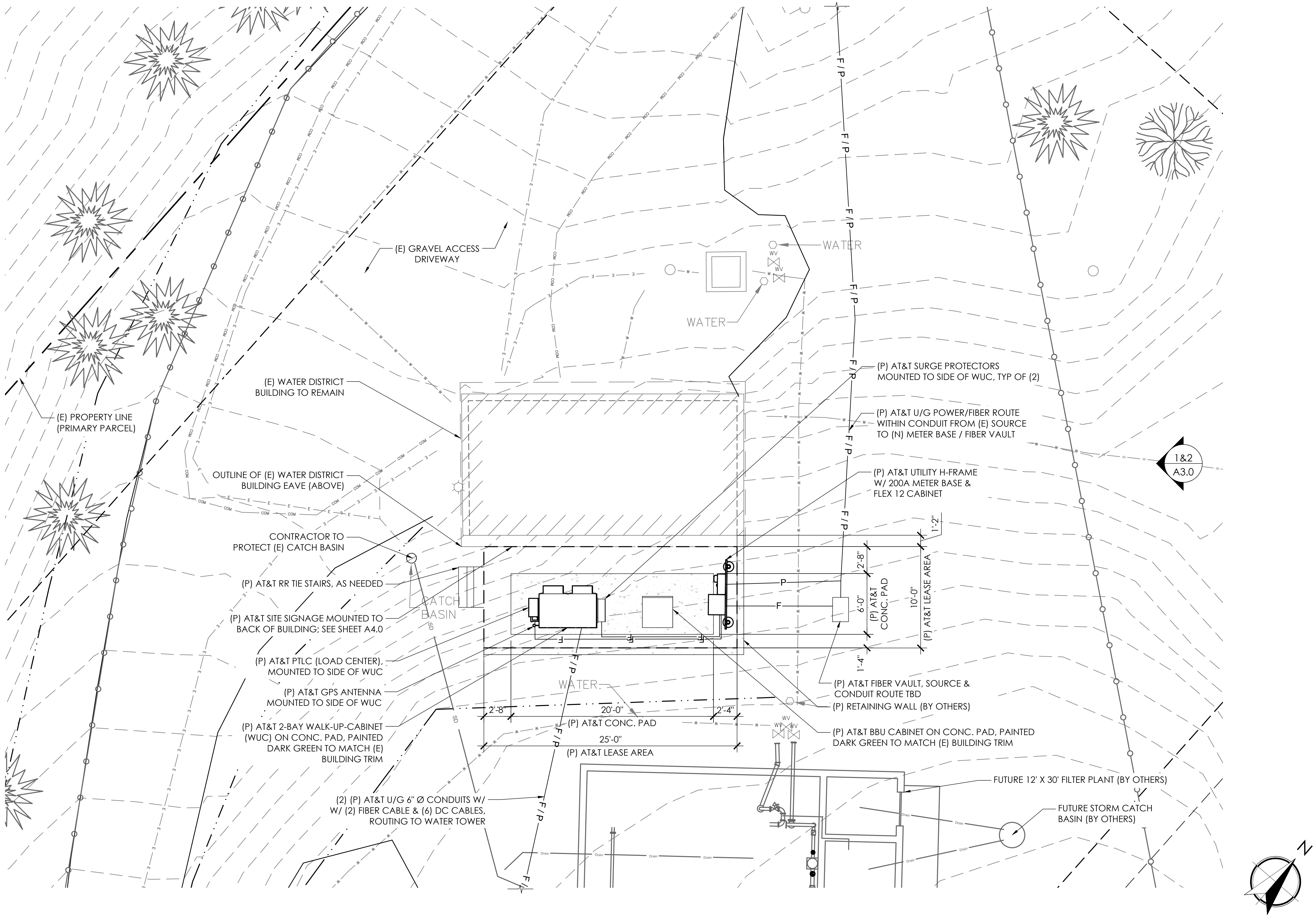
NE BAKER HILL ROAD
BAINBRIDGE ISLAND, WA 98110

SHEET TITLE

OVERALL SITE PLAN

SHEET NO.

A1.0



1 ENLARGED SITE PLAN

11X17 SCALE: 1" = 10'-0"
22 X 34 SCALE: 1" = 5'-0"

0' 5' 10' 20'

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LICENSER

PROJECT INFORMATION

BR0306
BAINBRIDGE
LYNWOOD CENTER

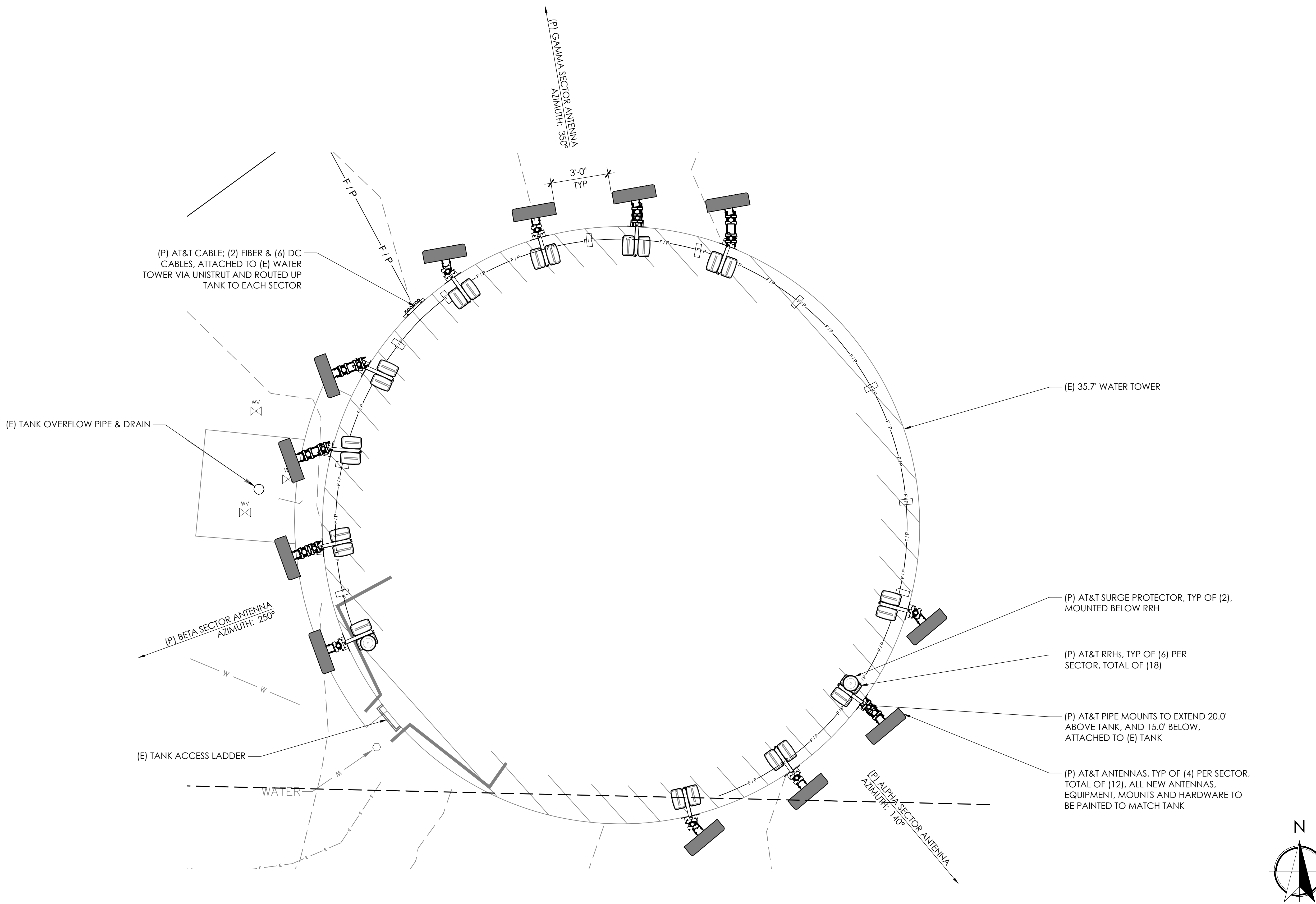
NE BAKER HILL ROAD
BAINBRIDGE ISLAND, WA 98110

SHEET TITLE

ENLARGED SITE PLAN

SHEET NO.

A2.0



1 ENLARGED SITE PLAN

11 X 17 SCALE: 3/16" = 1'-0"
22 X 34 SCALE: 3/8" = 1'-0"

0' 5' 10'

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VER.	DATE	DESCRIPTION
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2	11/13/20	CLIENT COMMENT
3	12/02/20	KPUD COMMENT
4	01/12/21	CLIENT COMMENT
5	01/20/21	FINAL LU DRAWINGS

LICENSER

PROJECT INFORMATION

BR0306
BAINBRIDGE
LYNWOOD CENTER

NE BAKER HILL ROAD
BAINBRIDGE ISLAND, WA 98110

SHEET TITLE

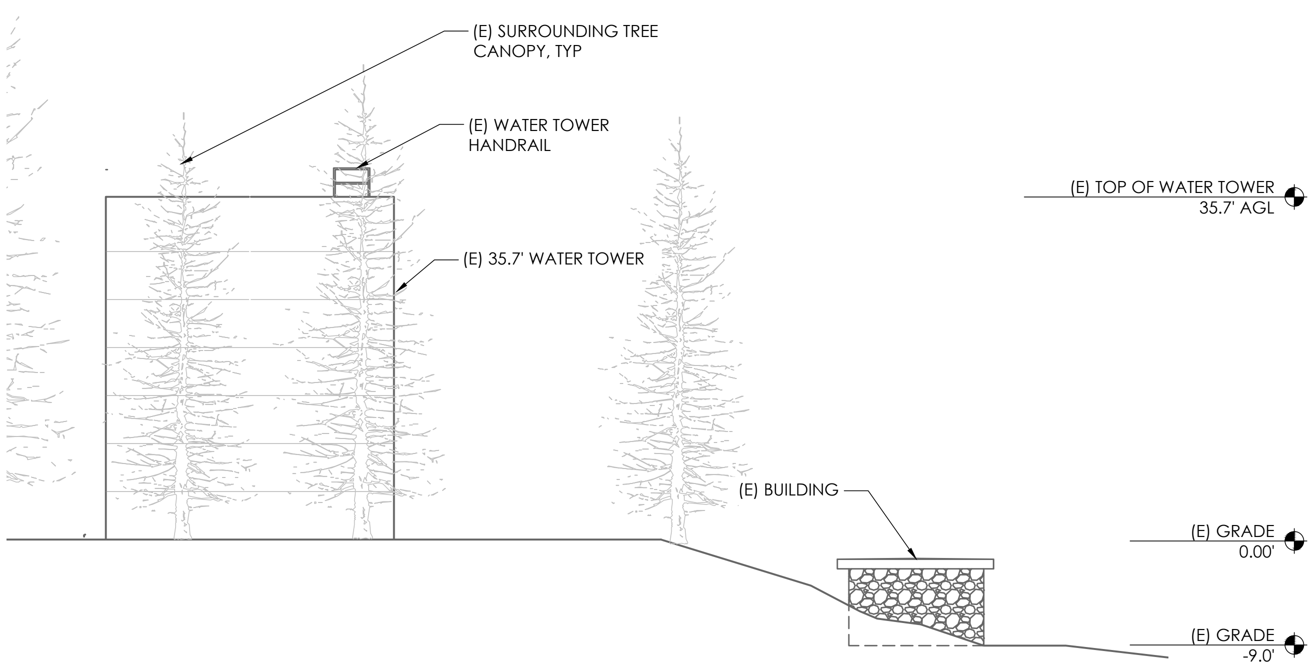
ENLARGED WATER TOWER PLAN

SHEET NO.

A2.1

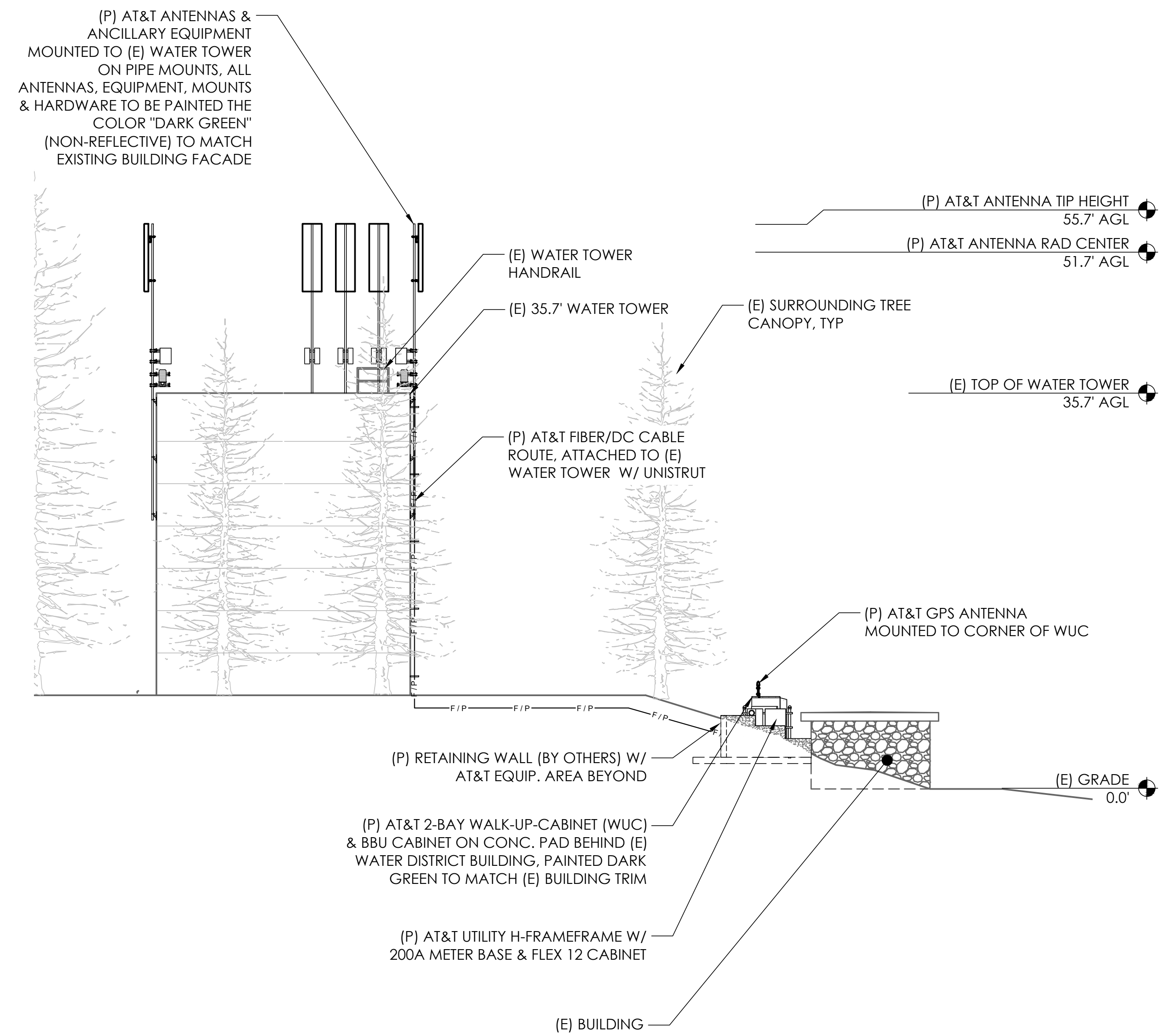
NOTES:

1. THE PROJECT CM / PM TO VERIFY ANY REQUIRED PAINTING REQUIREMENTS FOR PROPOSED TOWER, ANTENNAS, ANCILLARY EQUIPMENT, CABLES, AND HARDWARE PRIOR TO ORDERING / INSTALLING EQUIPMENT.



1 (E) NORTHEAST ELEVATION

11 X 17 SCALE: 1" = 20'-0"
22 X 34 SCALE: 1" = 10'-0"
0' 10' 20' 40'



2 (P) NORTHEAST ELEVATION

11 X 17 SCALE: 1" = 20'-0"
22 X 34 SCALE: 1" = 10'-0"
0' 10' 20' 40'

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2	11/13/20	CLIENT COMMENT
3	12/02/20	KPUD COMMENT
4	01/12/21	CLIENT COMMENT
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LICENSER

PROJECT INFORMATION

BR0306
BAINBRIDGE
LYNWOOD CENTER

NE BAKER HILL ROAD
BAINBRIDGE ISLAND, WA 98110

SHEET TITLE

ELEVATIONS

SHEET NO.

A3.0

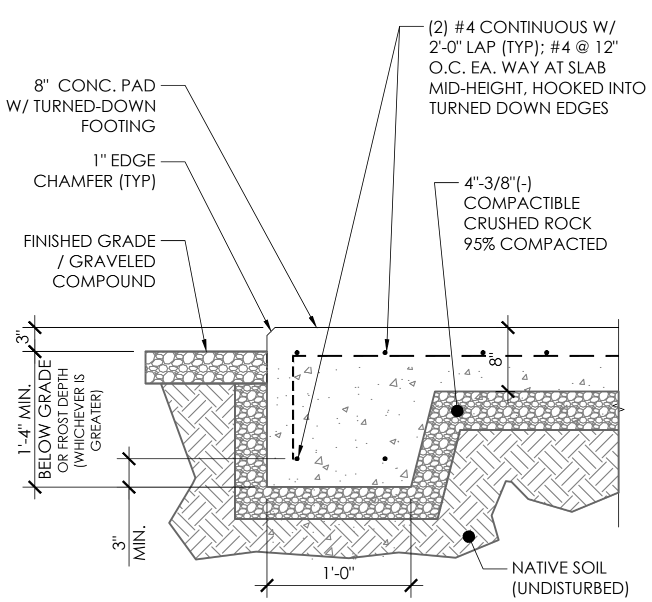
AT&T EQUIPMENT SPECIFICATIONS		
EQUIPMENT	DIMENSIONS (H x W x D)	WEIGHT
DELTA WALK UP CABINET (MODEL # ESOF020-HCV02)	86" x 68" x 50" (HT INCLUDES 6" PLINTH)	4000 LBS (MAX)
EMERSON BATTERY CABINET (NETXTEND)	72" x 36" x 37"	4680 LBS (MAX)

NOTES:

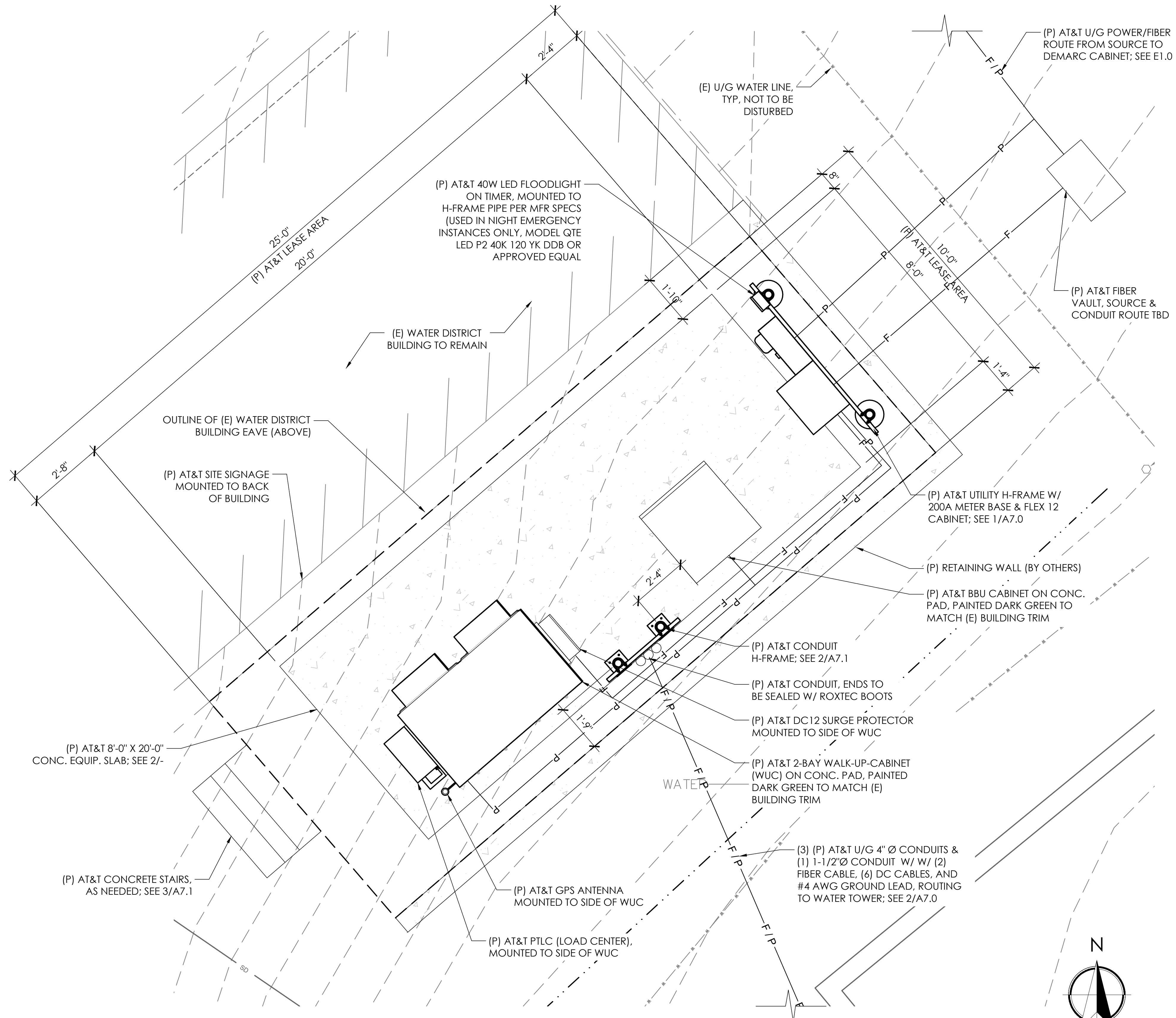
1. ANCHORAGE AND FOUNDATION DESIGN VALUES SHOWN HERE ARE MINIMUM REQUIREMENTS AND SHOULD BE VERIFIED FOR CONFORMANCE WITH MANUFACTURER SPECIFICATIONS AND SITE SPECIFIC CONDITIONS.
2. FOR ATTACHMENT OF (P) 2-BAY WUC CABINET TO CONCRETE PAD, USE (6) 5/8" Ø HILTI KWIK BOLT-TZ STAINLESS STEEL EXPANSION ANCHORS W/ 3 1/4" MINIMUM EMBEDMENT, SEE EQUIPMENT SPECIFICATIONS FOR LOCATIONS AND VERIFY W/ MANUFACTURER'S SPECIFICATIONS.
3. FOR ATTACHMENT OF (P) BATTERY CABINET TO CONCRETE PAD, USE (4) 5/8" Ø HILTI KWIK BOLT-TZ STAINLESS STEEL EXPANSION ANCHORS W/ 3 1/4" MINIMUM EMBEDMENT, SEE EQUIPMENT SPECIFICATIONS FOR LOCATIONS AND VERIFY W/ MANUFACTURER'S SPECIFICATIONS.
4. CONDUIT STUB UP LOCATIONS FOR ELECTRICAL, FIBER AND GENERATOR TO BE DETERMINED BY AT&T REPRESENTATIVE / CONTRACTOR.

1 NOTES & SPECIFICATIONS

NOTES:
1. SEE STRUCTURAL CONCRETE NOTES, SHEET GN2.0.
2. SLOPE CONCRETE 1/4" PER FOOT MINIMUM.
3. VERIFY EQUIPMENT SPECIFICATIONS FOR MOUNTING HOLE LOCATIONS.
4. MINIMUM OF 2" COVER AT TOP OF SLAB, AND 3" WHERE CONCRETE IS IN CONTACT W/ SOIL.
5. SOIL SHALL BE PREPARED WITH A FLAT SURFACE, FREE AND CLEAR OF STANDING WATER AND LOOSE DEBRIS. SOIL SHOULD BE WELL COMPACTED TO 90% OF IT MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.
6. TOP SURFACE OF SLAB SHALL BE A LIGHT BROOM FINISH AND TAPERED TO ALLOW WATER TO SHED WITHOUT PONDING.



2 CONCRETE EQUIP. PAD



3 ENLARGED EQUIPMENT PLAN

11 X 17 SCALE: 1/4"= 1'-0"
22 X 34 SCALE: 1/2" = 1'-0"
0' 2' 4' 8'

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VECTOR ENGINEERS

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DRAWING VERSION		
VER.	DATE	DESCRIPTION
1	03/17/21	PRELIM CX DRAWINGS
2	04/06/21	CLIENT COMMENT

LICENSER

PRELIMINARY

PROJECT INFORMATION

BR0306
BAINBRIDGE
LYNWOOD CENTER

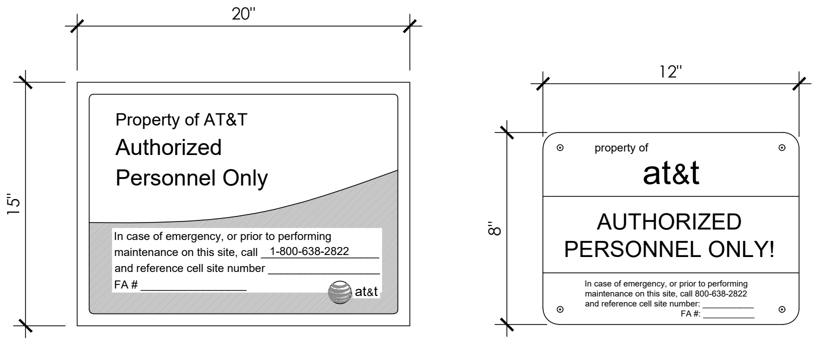
NE BAKER HILL ROAD
BAINBRIDGE ISLAND, WA 98110

SHEET TITLE

ENLARGED EQUIPMENT PLAN

SHEET NO.

A4.0

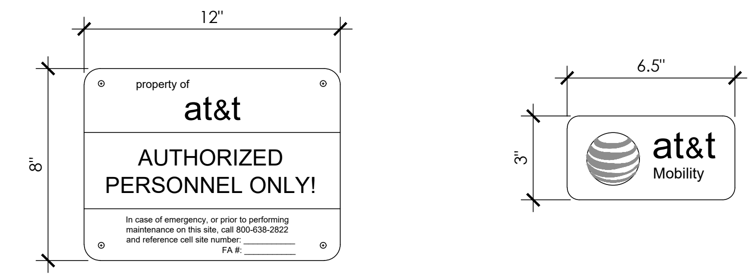


GATE SIGN

DOOR SIGN

NO TRESPASSING SIGNS

1	TYPICAL CELL SITE SIGNAGE REQUIRED



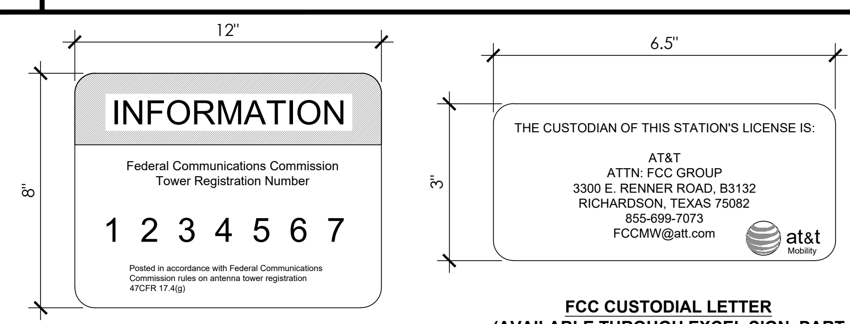
AT&T IDENTIFICATION SIGNS

NOTES:

1. OUTDOOR SITES REQUIRE THE SAME GATE AND NO TRESPASSING SIGNS AS INDOOR SITES IF OWNED BY AT&T. IN PLACE OF THE DOOR SIGN THE CABINETS MUST HAVE THE ABOVE SIGNS.
2. SIGN MUST BE AFFIXED TO THE SIDE OF THE CABINET (FRONT, REAR OR SIDE) WHICH IS MOST VISIBLE WHEN APPROACHING THE CABINET FROM THE SITE ACCESS POINT.
3. MULTIPLE CABINET SITES REQUIRE THE SIGNS ABOVE ATTACHED TO THE SIDE OF EACH CABINET ON THE END OF THE LINEUP. IN ADDITION, A SIGN INDICATING AT&T AS THE OWNER MUST BE AFFIXED TO THE FRONT OR REAR OF EVERY CABINET (NOT BOTH). AT&T IDENTIFICATION SIGN IS TO BE AFFIXED TO THE MOST VISIBLE AREA (FRONT OR REAR) WHEN APPROACHING THE CABINETS FROM THE SITE ACCESS POINT.

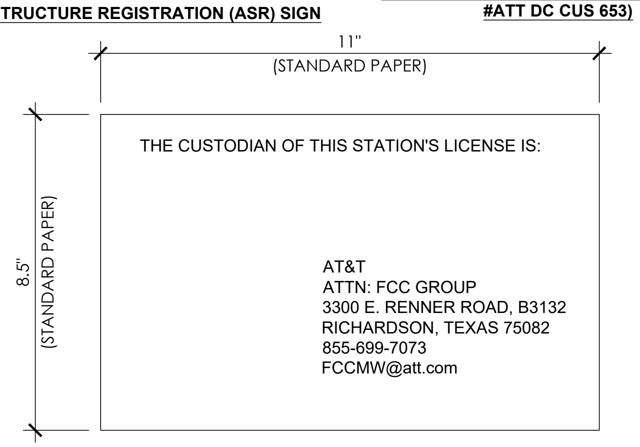
2	OUTDOOR EQUIPMENT SITE SIGNAGE REQUIRED

3	NOT IN USE



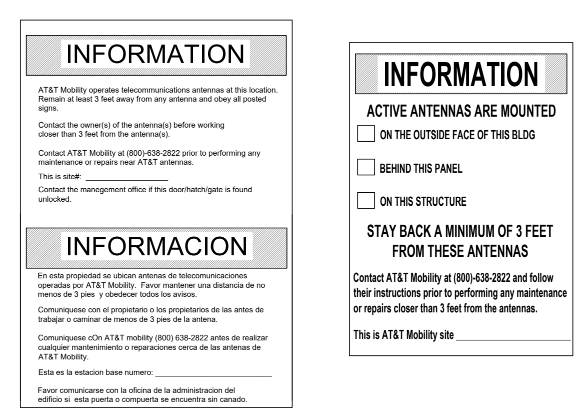
ANTENNA STRUCTURE REGISTRATION (ASR) SIGN

FCC CUSTODIAL LETTER
(AVAILABLE THROUGH EXCEL SIGN, PART #ATT DC CUS 653)



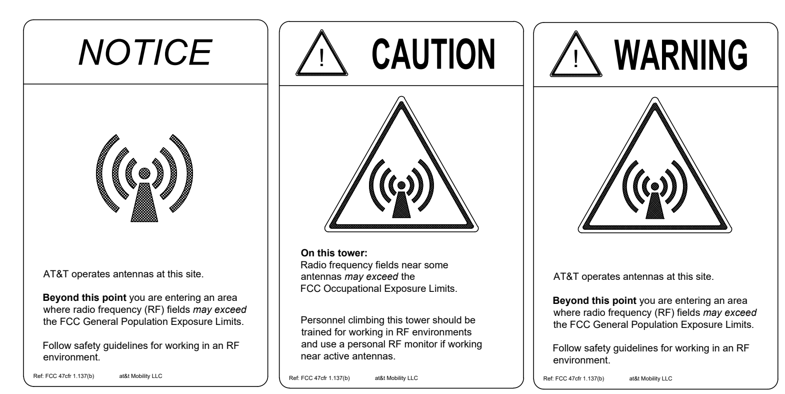
FCC CUSTODIAL LETTER

4	FCC SIGNS REQUIRED



GREEN INFORMATION SIGNS

NOTE: RF SIGNS ARE TO BE POSTED PER ATT-002-290-078



BLUE NOTICE

YELLOW CAUTION

ORANGE WARNING

5	RF EMISSION SIGNS REQUIRED

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VECTOR ENGINEERS

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DRAWING VERSION

VER.	DATE	DESCRIPTION
1	09/09/20	PRELIM LU DRAWINGS
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3	12/02/20	KPUD COMMENT
4	01/12/21	CLIENT COMMENT
5	01/20/21	FINAL LU DRAWINGS

LICENSER

PROJECT INFORMATION

BR0306
BAINBRIDGE
LYNWOOD CENTER

NE BAKER HILL ROAD
BAINBRIDGE ISLAND, WA 98110

SHEET TITLE

SITE SIGNAGE DETAILS

SHEET NO.

A5.0

Bainbridge Lynwood Center
BR0306

Map

Photo Location Map

0' 50' 100' 200'

CAPITAL DESIGN SERVICES

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Visual impact will be affected by location and visibility of observer. This document is for planning and information purposes only and is purely conceptual. This is solely the designers / photographers interpretation of the proposed development.

N

Address: 4600 OLD MILL ROAD
BAINBRIDGE ISLAND, WA 98110

Bainbridge Lynwood Center
BR0306

Proposed Antenna Height: 55.7' AGL
Existing Water Tower Height: 35.7' AGL
Description:
12 proposed AT&T antennas with associated ancillary equipment attached to existing water tower. Paint proposed antennas 'Dark Green'. Proposed At&T ground equipment behind existing building. (Paint ground equipment 'Dark Green' to match existing building trim).

VIEW 2

Existing Conditions - Looking Southeast

Proposed Conditions - Looking Southeast

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Address: 4600 OLD MILL ROAD
BAINBRIDGE ISLAND, WA 98110

Bainbridge Lynwood Center

BR0306

Proposed Antenna Height: 55.7' AGL
Existing Water Tower Height: 35.7' AGL
Description:
12 proposed AT&T antennas with associated ancillary equipment attached to existing water tower. Paint proposed antennas 'Dark Green'. Proposed At&T ground equipment behind existing building. (Paint ground equipment 'Dark Green' to match existing building trim).

VIEW 1

Existing Conditions - Looking South

Proposed Conditions - Looking South

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Address: 4600 OLD MILL ROAD
BAINBRIDGE ISLAND, WA 98110

Bainbridge Lynwood Center
BR0306

Proposed Antenna Height: 55.7' AGL
Existing Water Tower Height: 35.7' AGL
Description:
12 proposed AT&T antennas with associated ancillary equipment attached to existing water tower. Paint proposed antennas 'Dark Green'. Proposed At&T ground equipment behind existing building. (Paint ground equipment 'Dark Green' to match existing building trim).

VIEW 3

Existing Conditions - Looking East

Proposed Conditions - Looking East (zoom x 3)

CAPITAL DESIGN SERVICES

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Address: 4600 OLD MILL ROAD
BAINBRIDGE ISLAND, WA 98110

Bainbridge Lynwood Center
BR0306

Proposed Antenna Height: 55.7' AGL
Existing Water Tower Height: 35.7' AGL
Description:
12 proposed AT&T antennas with associated ancillary equipment attached to existing water tower. Paint proposed antennas 'Dark Green'. Proposed At&T ground equipment behind existing building. (Paint ground equipment 'Dark Green' to match existing building trim).

VIEW 4

Existing Conditions - Looking Northeast

Proposed Conditions - Looking Northeast

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Visual impact will be affected by location and visibility of observer. This document is for planning and information purposes only and is purely conceptual. This is solely the designers / photographers interpretation of the proposed development.

Address: 4600 OLD MILL ROAD
BAINBRIDGE ISLAND, WA 98110

Bainbridge Lynwood Center

BR0306

Proposed Antenna Height: 55.7' AGL
Existing Water Tower Height: 35.7' AGL
Description:
12 proposed AT&T antennas with associated ancillary equipment attached to existing water tower. Paint proposed antennas 'Dark Green'. Proposed At&T ground equipment behind existing building. (Paint ground equipment 'Dark Green' to match existing building trim).

VIEW 5

Existing Conditions - Looking West

Proposed Conditions - Looking West

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Visual impact will be affected by location and visibility of observer. This document is for planning and information purposes only and is purely conceptual. This is solely the designers / photographers interpretation of the proposed development.

Address: 4600 OLD MILL ROAD
BAINBRIDGE ISLAND, WA 98110

BR0306 Bainbridge Lynwood Center

NE BAKER HILL ROAD
BAINBRIDGE ISLAND, WA 98110

View Shed Map Analysis (0.25 Mile Setback)

View Shed Analysis Information:

- +/- 94 Homes within 0.25 mile setback
- +/- 11 Homes may be affected (+/- 11.7% of 94 homes)

Legend

- Existing residential homes **(+/- 94 total)**
- Proposed antennas visible from existing residential home **(11 total)**
- Proposed antennas visible from location
- 1/4 mile setback from proposed antenna location

at&t smartlink

Note: Aerial & View Shed Information generated from Google Earth PRO. The Setback line & View Shed information is approximate in nature and is only to be used for conceptual planning and information purposes only.

BR0306 Bainbridge Lynwood Center
RF Justification

SERVICE OBJECTIVES & TARGETED SERVICE AREA

AT&T is proposing to build a new wireless communication facility ("WCF" and/or "Facility) BR0306 Bainbridge Lynwood Center (to be collocated on an existing Kitsap Public Utilities District ("KPUD") water tower at No situs address, Baker Rd, Bainbridge Island, WA 98110 (47.606325, -122.544258).

Service Objectives—Generally

AT&T strives for a network design that provides high radio frequency ("RF") signal strength and provide good DL Dominance resulting in quality service inside buildings and vehicles. To support this network design there are two main drivers that prompt the need for a new cell site—coverage and capacity.

"Coverage" is the need to expand wireless service into an area that either has no service or bad service. "Capacity" is the need for more wireless resources. Cell sites have a limited amount of resources to handle voice calls, data connections, and data volume. When these capacity limits are reached, user experience quickly degrades.

Service Objectives—Proposed New Facility

The proposed new Facility is a service coverage site. Currently, there is a significant gap in 4G LTE service in the SW tip of Bainbridge Island with minimal to no 4G LTE service.

This WCF aims to provide adequate and dominant coverage in and around Lynwood Center and the surrounding residential areas, especially those to the west (the "Targeted Service Area"). This Facility will also provide improved coverage for ferries on the Seattle-Bremerton Ferry. This service objective and Targeted Service Area was determined by AT&T's RF engineers through a combined analysis of market demand, customer complaints, service requests, and RF engineering design.

The proposed new Facility meets AT&T's service objectives to provide sufficient continuous and uninterrupted outdoor, in-vehicle, and in-building wireless service within the Targeted Service Area, resulting in fewer dropped calls, improved call quality, and improved access to additional wireless services the public now demands (this includes emergency 911 calls).

SEARCH RING

AT&T's RF engineers performed an RF engineering study—considering multiple objectives—to determine the approximate site location and antenna height required to best fulfill the noted service objectives within the Targeted Service Area. From this study, AT&T's RF engineers identified a "search ring" area where a new wireless facility may be located to provide effective service in the Targeted Service Area. As this is a service coverage site intended to provide seamless coverage in the specific area, the proposed new Facility must be located within the identified search ring to be able to establish a dominant signal within the Targeted Service Area.

Figure A—Search Ring, indicates the search ring AT&T's RF engineers established for this proposed site. A discussion of the methodology AT&T's RF engineers used to identify the search ring is included at the end of this RF Justification document.

Figure A—Search Ring

PROPOSED NEW AT&T FACILITY

Antennas and Equipment

To meet AT&T's service objectives within the Targeted Service Area, AT&T is proposing to install up to twelve (12) eight-foot (8ft) panel antennas and eighteen (18) remote radio head (RRH) units, together with all associated equipment.

Projected New Coverage

Based upon the above proposed equipment and antenna tip height, AT&T's RF engineers project that the proposed Facility will provide the following new AT&T 4G LTE coverage.

Figure B—Existing AT&T 4G LTE Coverage shows existing AT&T 4G LTE services in the general area of the proposed new Facility, which demonstrates the current gap in coverage in the Targeted Service Area. As can be seen, there is a coverage gap in all areas not shaded in green. Currently, the Targeted Service Area has minimal to no 4G voice service and does not have adequate 4G LTE service. **Figure C—New AT&T 4G LTE Coverage** shows the projected new AT&T 4G LTE coverage from the proposed new WCF with the requested antenna tip height of 55'7".

Antenna Tip Height

As the proposed new Facility is intended to provide new coverage, height and location play an important role. The proposed antenna tip height of 55'7" was determined by considering various factors such as the height of surrounding wireless sites, ground elevation, obstructions to the signal, and the surrounding terrain. Accordingly, the proposed 55'7" antenna tip height is the minimum necessary to best meet AT&T's service objectives within the Targeted Service Area.

As shown in **Figures D.1 & D.2—Height Comparison—New AT&T 4G LTE Coverage,** the projected new coverage provided by antennas on the water tank with a 45'7" and 35'7" antenna tip height, respectively, would not provide sufficient coverage to meet AT&T's service objectives within the Targeted Service Area. Specifically, coverage decreases by 39% if there's a 10' reduction in height to 45'7" and 58% coverage decrease if there's a 20' reduction in height to 35'7". Most notably, large portions of Lynwood Center Rd and Blakeley Ave NE, and the surrounding residences, would not receive coverage under the lower 35'7" and 45'7" antenna tip heights as compared with the proposed 55'7" tip height. The proposed antenna tip height is also the height where an AT&T wireless device can be reliably used to make and receive telephone calls and use data service in the presence of varying signals.

Figure B—Existing AT&T 4G LTE Coverage

Existing AT&T Coverage in Targeted Service Area BEFORE Addition of Proposed New Wireless Facility

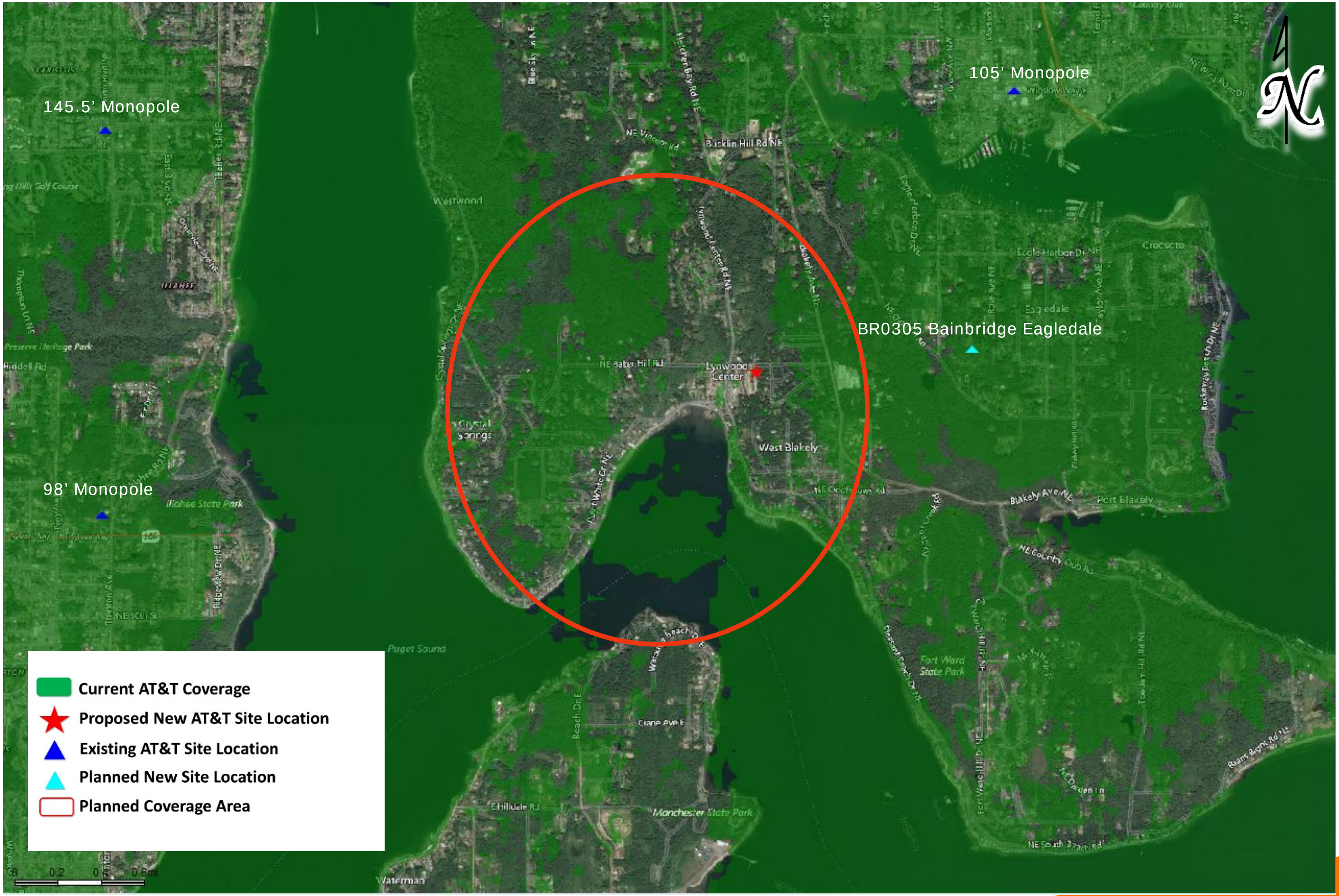


Figure C—New AT&T 4G LTE Coverage

Projected New AT&T Coverage AFTER Proposed AT&T WCF On-Air—55’7” Antenna Tip Height

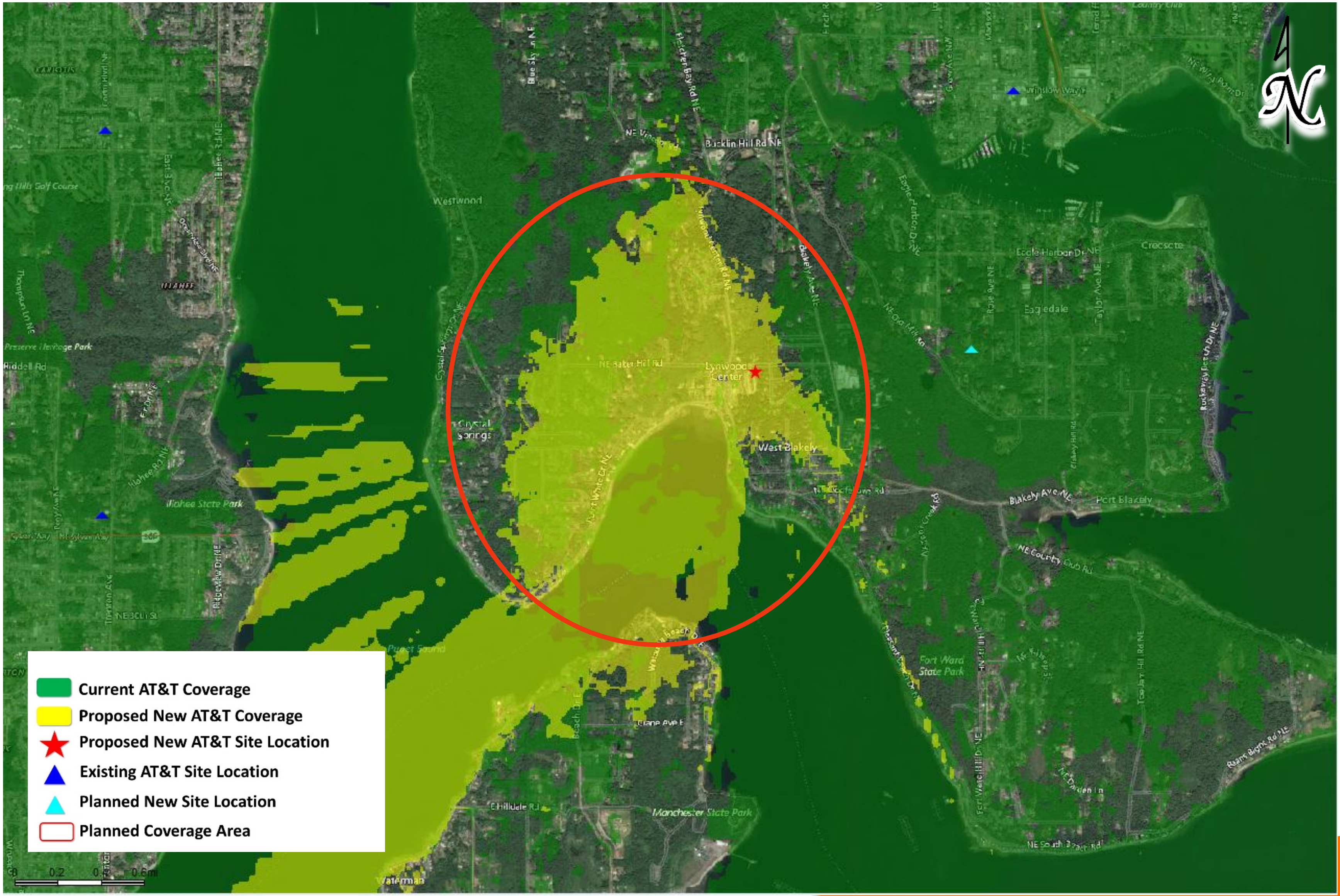


Figure D.1—Height Comparison—New AT&T 4G LTE Coverage—45’7”

Comparison of Projected New AT&T Coverage with 45’7” v. 55’7” Antenna Tip Height

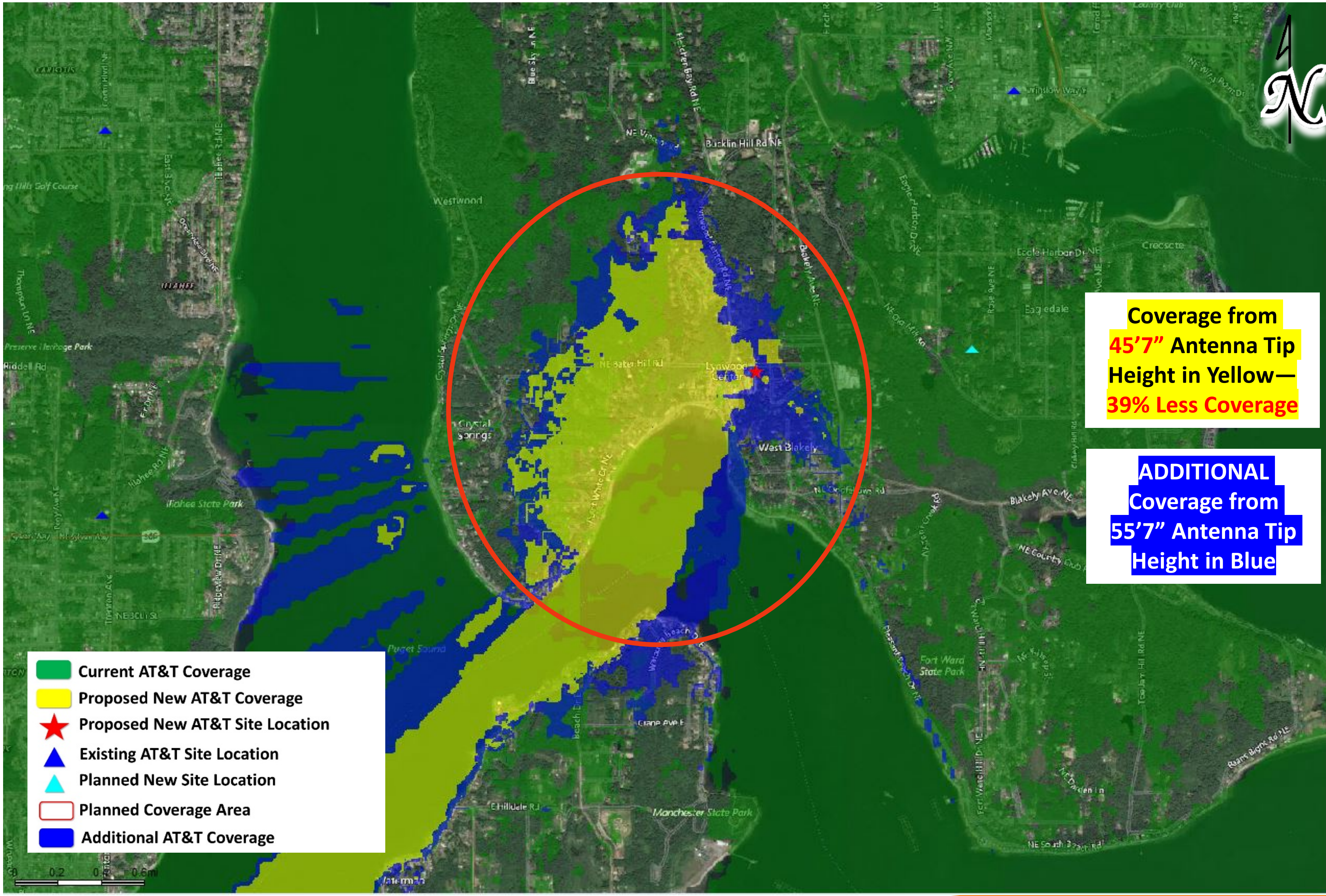
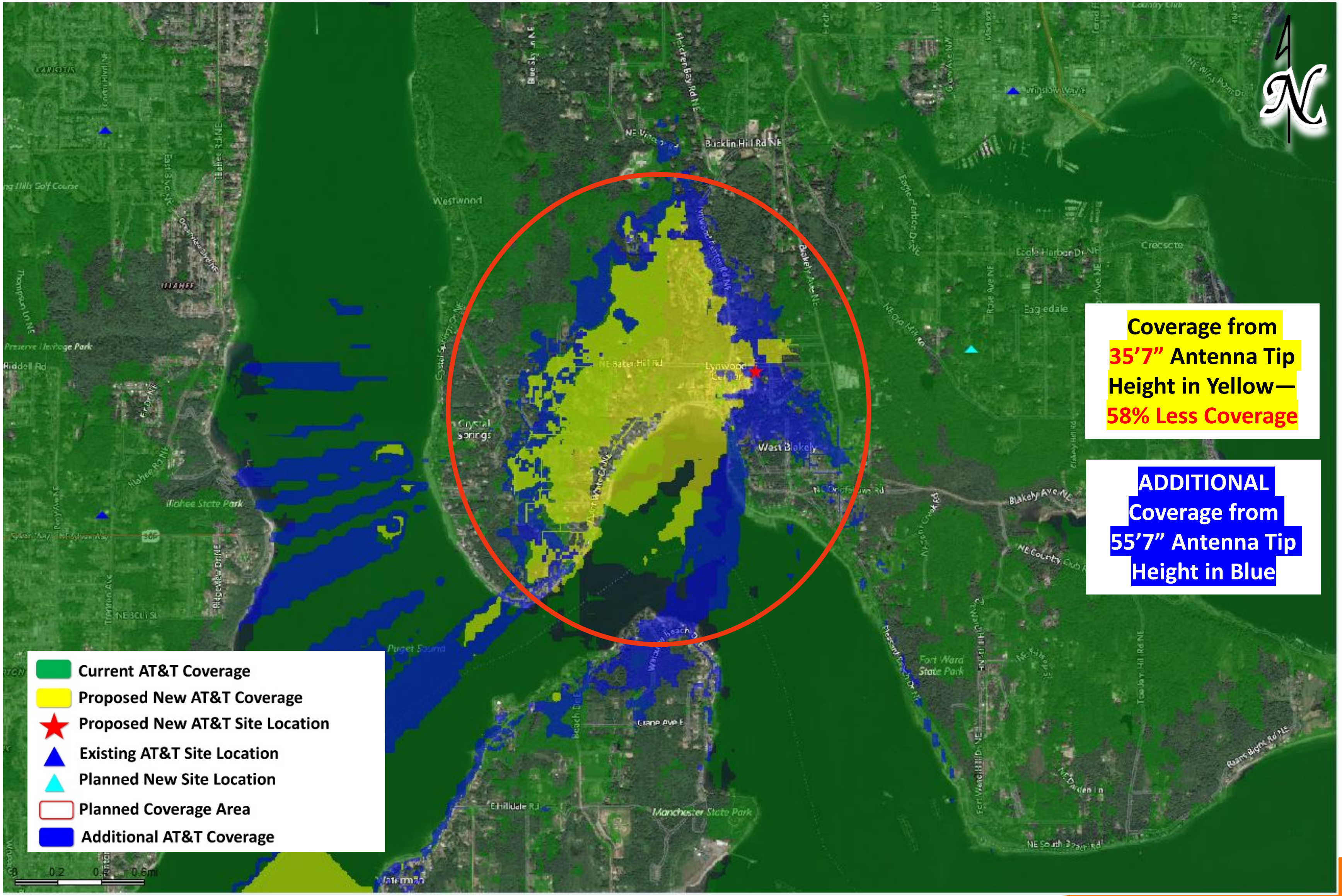


Figure D.2—Height Comparison—New AT&T 4G LTE Coverage—35’7”

Comparison of Projected New AT&T Coverage with 35’7” v. 55’7” Antenna Tip Height



ALTERNATIVE SITE ANALYSIS

AT&T's RF engineers evaluated two alternative site locations within the Search Ring as possible locations for the proposed new WCF.

Figure E—Alternative Site Locations shows the location of each alternative site in relation to the proposed new site location.

- **Alternative Site #1** (**47.605953 / -122.535308**) **:** An elementary school rooftop located approximately 0.42 miles east from the proposed new WCF.
- **Alternative Site #2 (47.609814, -122.56525) :** A raw land site located approximately 1.01 miles northwest of the proposed new WCF

Figure F—Alt Site #1—New AT&T 4G LTE Coverage demonstrates the projected coverage from Alternative Site #1—a 40ft antenna tip height on the roof of an elementary school, which is the highest available antenna tip per the BIMC. As can be seen by the propagation map, the coverage from this site will not be able to provide Lynwood Center with dominant seamless coverage. This is due to the low antenna tip height and blockage of the wireless signal by the surrounding terrain. This Alt. Site #1 location and low available height will not meet AT&T's coverage objectives for the Targeted Service Area.

Figure G—Alt Site #2—New AT&T 4G LTE Coverage demonstrates the projected coverage from Alternative Site #2—a new 110' monopole on Bainbridge Island Parks Department conservation land. As can be seen by the propagation map, the coverage from this site will also not be able to provide Lynwood Center with dominant seamless coverage. Despite the higher antenna tip height, the distance of this site from the Targeted Service Area and blockage of the wireless signal by the surrounding terrain impairs coverage. Additionally, a significant amount of the projected coverage from this site is concentrated to the north in less populated areas. Accordingly, this Alternative Site #2 will not meet AT&T's coverage objectives for the Targeted Service Area.

Figure E—Alternative Site Locations

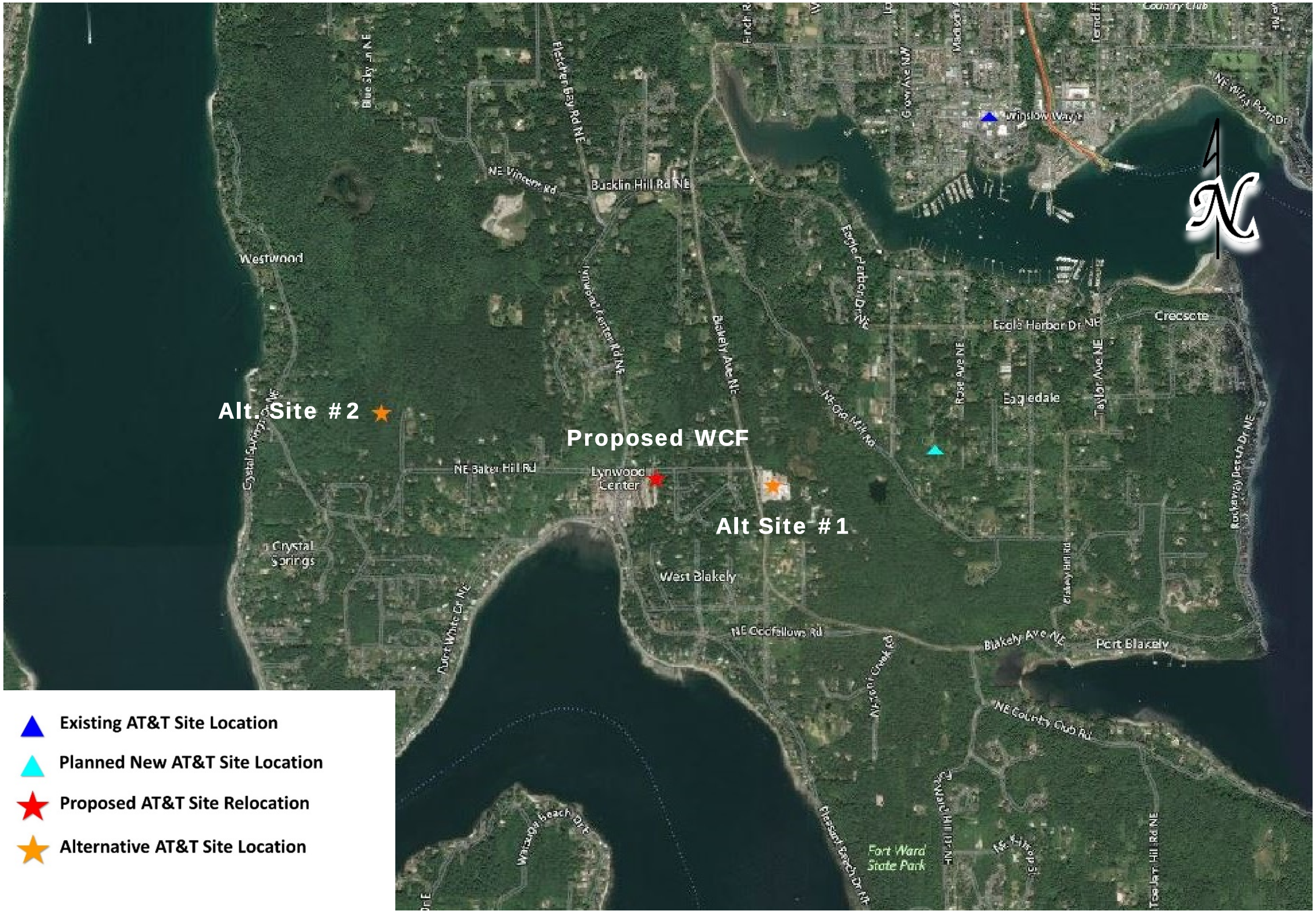


Figure F—Alt Site #1—New AT&T 4G LTE Coverage

Projected New AT&T Coverage AFTER Alternative Site #1 On-Air—40ft Antenna Tip Height

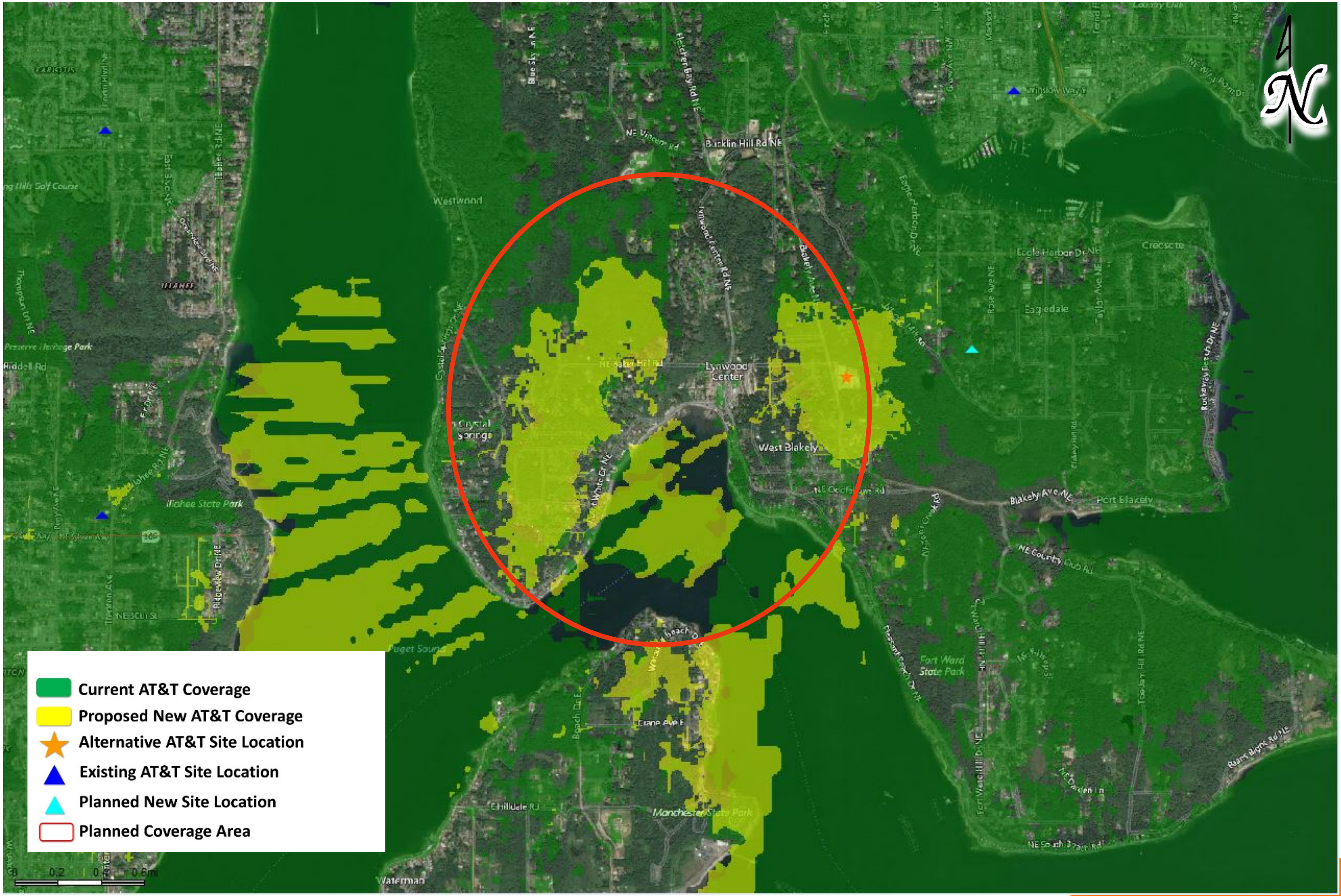
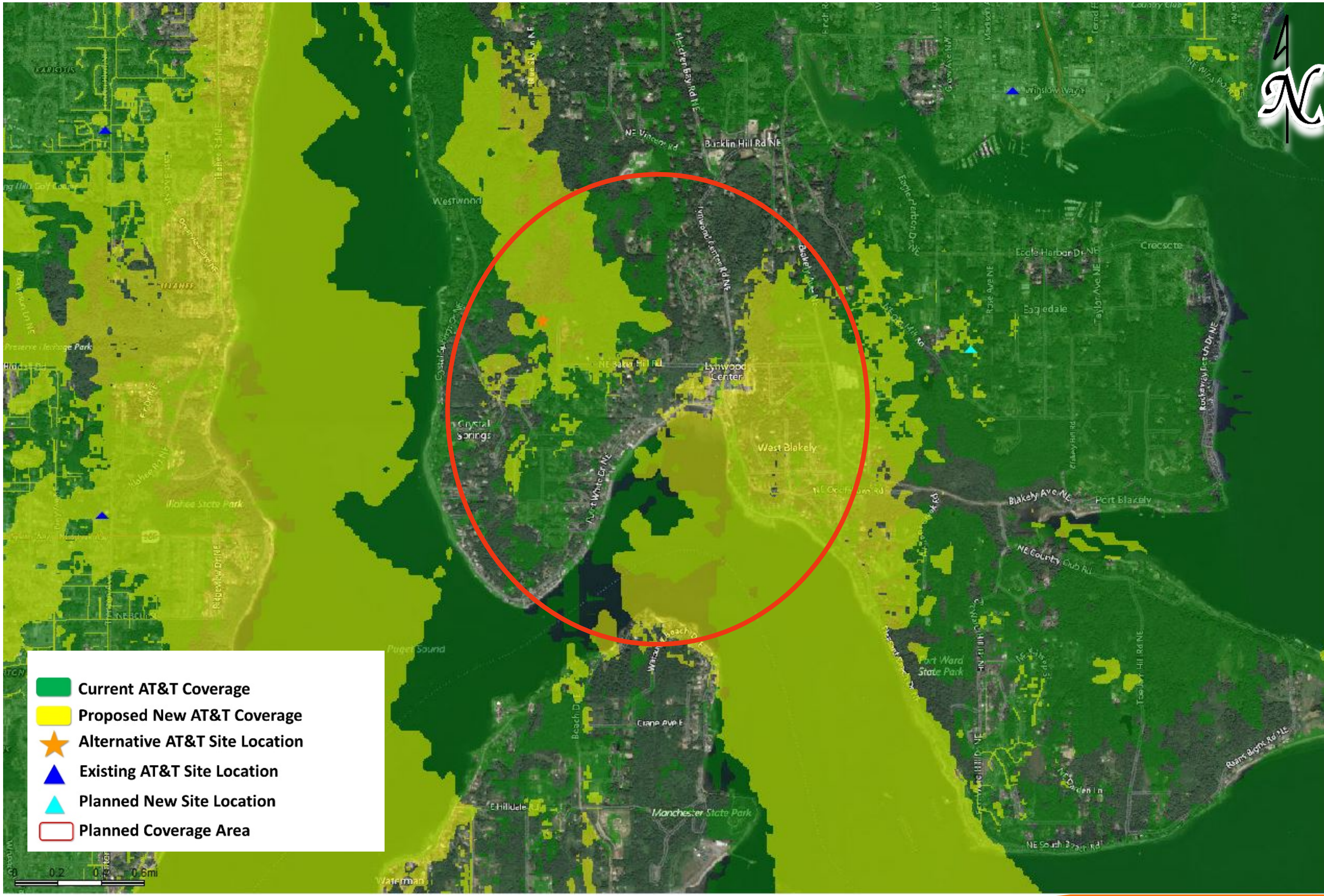


Figure G—Alt Site #2—New AT&T 4G LTE Coverage

Projected New AT&T Coverage <u>AFTER</u> Alternative Site #2 On-Air—110ft Antenna Tip Height



SEARCH RING METHODOLOGY

AT&T's RF engineers used coverage propagation software systems to predict the coverage provided by the proposed new WCF. The software and AT&T's RF engineers considered the general factors outlined below, as well as more project-specific factors such as the type of antenna, antenna tilt, etc.

Coverage. The antenna site must be located in an area where the radio frequency broadcasts will provide adequate coverage within the targeted service area. The RF engineer must take into consideration the coverage objectives for the site as well as the terrain in and around the area to be covered. Because radio frequency broadcasts travel in a straight line and diminish as they travel further away from the antennas, it is generally best to place an antenna site near the center of the desired coverage area. However, in certain cases, the search ring may be located away from the center of the desired coverage area due to the existing coverage, the surrounding terrain, or other features which might affect the radio frequency broadcasts, *e.g.* buildings or sources of electrical interference.

Clutter. AT&T's WCFs must "clear the clutter"—the WCF site must be installed above or close to RF obstructions (the "clutter") to enable the RF to extend beyond and clear the clutter. AT&T's radio frequencies do not penetrate mountains, hills, rocks, or metal, and are diminished by trees, brick and wood walls, and other structures. Accordingly, AT&T's antennas must be installed above or close to the "clutter" to provide high quality communications services in the desired coverage areas. Additionally, if the local code requires us to accommodate additional carriers on the support structure, the structure must be even taller to also allow the other carriers' antennas to clear the clutter.

Call Handoff. The WCF site must be in an area where the radio broadcasts from the site will allow seamless "call handoff" with adjacent WCF sites. Call handoff is a feature of a wireless communications system that allows an ongoing telephone conversation to continue uninterrupted as the user travels from the coverage area of one antenna site into the coverage area of an adjacent antenna site. This requires coverage overlap for a sufficient distance and/or period of time to support the mechanism of the call handoff.

Quality of Service. Users of wireless communications services want to use their services where they live, work, commute and play, including when they are indoors. AT&T's coverage objectives include the ability to provide indoor coverage in areas where there are residences, businesses and indoor recreational facilities.

SEARCH RING METHODOLOGY—Con't

Radio Frequencies used by System. The designs of wireless communications systems vary greatly based upon the radio frequencies that are used by the carrier. If the carrier uses radio frequencies in the 850 MHz to 950 MHz range, the radio signals will travel further and will penetrate buildings better than the radio frequencies in the 1900 MHz band. As a result, wireless communications systems that use lower radio frequencies will need fewer sites than wireless communications systems that use higher radio frequencies.

Land Use Classifications. A&T's ability to construct a WCF site on any particular property is affected by state and local regulations, including zoning and comprehensive plan classifications, goals, and policies. AT&T's search rings take these laws and regulations into consideration.

January 14, 2021

Monica Striker
Capital Design Services
2101 4th Avenue E, Suite 202
Olympia, WA 98506

Re: Acoustical Report – AT&T BR0306 Bainbridge Lynwood Center
Site: Tax Lot 042402-1-504-2005, Bainbridge Island, WA 98110

Dear Monica,

This report presents a noise survey performed in the immediate vicinity of the proposed AT&T telecommunications facility at Tax Lot 042402-1-504-2005 in Bainbridge Island, Washington. This noise survey extends from the proposed equipment to the nearest properties. The purpose of this report is to document the existing conditions and the impacts of the acoustical changes due to the proposed equipment. This report contains data on the existing and predicted noise environments, impact criteria and an evaluation of the predicted sound levels as they relate to the criteria.

Ambient Conditions

Existing ambient noise levels were measured on site with a Svantek 971 sound level meter on April 15, 2020. Measurements were conducted as close to the proposed location as possible and the property lines in accordance with the State of Washington code for Maximum Environmental Noise Levels WAC 173-60-020. The average ambient noise level was 49 dBA, due primarily to local traffic.

Code Requirements

The site is located within the City of Bainbridge Island Zoning jurisdiction on property with an R-5 zoning designation, in a residential district. All of the receiving properties are residential.

The proposed new equipment consists of equipment support cabinets which are expected to run 24 hours a day.

Bainbridge Island Municipal Code Chapter 6.16.020 adopts WAC 173-60-020, 173-60-040 and 173-60-090.

Under WAC 173-60-040, noise from equipment on a Class A EDNA (Residential) property is limited as follows:

Class A EDNA Receiver: Noise is limited to 55 dBA during daytime hours. During nighttime, defined as the hours between 10 p.m. and 7 a.m., maximum sound levels are reduced by 10 dBA for receiving properties within Class A EDNA's. Since the support cabinets are expected to operate 24 hours a day, they must meet the 45 dBA nighttime limit.

Predicted Equipment Sound Levels

24-Hour Operation Equipment
The following table presents a summary of the equipment and their associated noise levels:

Table 1: Equipment Noise Levels

Equipment	dBA (each)	Quantity	Combined dBA @ 5 ft
Delta ESOF020-HCV02 WUC	65 dBA @ 5 ft	1	65
Emerson NetXtend Flex Battery Enclosure	65 dBA @ 5 ft	1	65
Total dBA (All cabinets combined)			**68**

Methods established by ARI Standard 275-2010 and ASHRAE were used in predicting equipment noise levels to the receiving properties. Application factors such as location, height, and reflective surfaces are accounted for in the calculations.

The equipment will be located at grade to the southeast of an existing equipment shelter and is surrounded by a chain-link fence. The land is located on a hill that sloping up to the east. The nearest receiving properties are approximately 65 feet east and 60 feet west of the equipment. The following table presents the predicted sound levels at the nearest receiving properties:

Table 2: Predicted Noise Levels: Proposed Equipment Cabinets

Line	Application Factor	E	W
1	Sound Pressure Level at 5 ft (dBA), Lp1	68	68
2	Noise Reduction – Shelter / Hill	-3	-3
3	Distance Factor (DF) Inverse-Square Law (Free Field): DF = 20*log (d1/d2)	-22 (65 ft)	-21 (60 ft)
4	New Equipment Sound Pressure Level at Receiver, Lpr (Add lines 1 and 2)	**43**	**44**

As shown in Table 2, the sound pressure level from the proposed equipment is predicted to be 43 dBA at the nearest receiving property to the east and 44 dBA at the nearest receiving property to the west. These noise levels meet the 45 dBA nighttime code limit.

Please contact us if you have any questions or require further information.

Sincerely,
SSA Acoustics, LLP

Steven Hedback
Acoustical Consultant

Date: April 30, 2020

Site Number: BR0306 - BAINBRIDGE LYNWOOD CENTER - FA 15158127

Address: No official site address; Lat/Long = 47.606325, -122.544258

Baker Rd, Bainbridge Island, WA 98110

Re: Radio Frequency Compliance

Statement of Compliance

This AT&T wireless communications facility complies with all federal standards for radio frequency radiation in accordance with the Telecommunications Act of 1996 and subsequent amendments and any other requirements imposed by state or federal regulatory agencies.

Description of Facility:

Location Type: Proposed modifications to the wireless communications facility will be comprised of multiple panel antennas and associated radio cabinets utilizing licensed frequencies in the 700, 850, 1900, 2100, and 2300 MHz bands. The purpose of the facility is to provide coverage and/or capacity to the geographic service area.

Power Density:

The power density from any sector as designed with the proposed facility shall not exceed the FCC maximum permissible exposure limits in accordance with FCC Public Standards OET Bulletin 65 (e.g., 1 mW/cm^2 at 1900 MHz) at any location that is readily accessible by the public, without proper RF Safety mitigation and measures in place and clearly demarcated with appropriate signage.

The proposed facility should not interfere with other communications facilities. Our sites are monitored 24/7 by a national operations center to ensure all is operating normally. In addition, we have local technicians who make routine visits to cell sites to make repairs when needed. AT&T audits our facilities on a semi-annual basis to ensure that FCC compliance levels are continuously met.

If requested, a detailed radio frequency emission safety report detailing the maximum potential exposures may be provided to the jurisdiction.

Sincerely,

Juvylyn Calces
AT&T Mobility - RAN Engineering – PNW Market RF Safety Coordinator

Ellen Fairleigh

From: Mark Oppenhuizen <mark.oppenhuizen@gmail.com>
Sent: Tuesday, April 20, 2021 2:00 PM
To: Ellen Fairleigh
Subject: Re: PLN51880A AT&T Telecom facility- applications have been re-submitted and public comment period (4/2-4/23)

Ms. Fairleigh,

Thank you for your note. Please carry my previously submitted comments forward to the new application. I hope this time AT&T moves forward and completes the process and work. Lynnwood center needs this!

Thanks again,

Mark Oppenhuizen
530.665.3034 mark.oppenhuizen@gmail.com

> On Apr 20, 2021, at 1:31 PM, Ellen Fairleigh <efairleigh@bainbridgewa.gov> wrote:
>
> Good afternoon,
>
> You are receiving this email because you submitted public comment on a proposed AT&T telecom facility (PLN51880 CUP/WCF) in August 2020. Subsequently, these applications were placed on hold by the applicant and then voided by the City due to inactivity.
>
> This project was been re-submitted under a new application number (PLN51880A CUP/WCF) in February 2021 with some minor revisions. These applications were noticed on April 2, 2021, with a public comment period running from April 2, 2021-April 23, 2021. The public notice is posted on the property and on the City's website, was published in the Bainbridge Island Review, and mailed to property owners within 500'. See below:
>
> https://www.bainbridgewa.gov/433/Proposed-Land-Use-Actions
>
> By replying to this email, please advise if you would like to carry your previously submitted public comment forward to this application, or submit a new public comment by April 23, 2021 at 4pm, or if you no longer wish to comment on this application.
>
> Please let me know if you have any questions.
>
> Best,
>
> Ellen

<image001.jpg>
ELLEN FAIRLEIGH
City Planner
www.bainbridgewa.gov
facebook.com/citybainbridgeisland/
206.780.3767 (office) 206.780.0955 (fax)

Due to the City's COVID-19 response, the Planning and Community Development Department (PCD) has modified its operations. Please see the PCD webpage (https://www.bainbridgewa.gov/154/Planning-Community-Development) for current information.

From:	Mark Oppenhuizen
To:	PCD
Subject:	Public comment on AT&T WCF project number PLN51880 WCF
Date:	Monday, August 17, 2020 12:45:25 PM

CAUTION: This email originated from outside the City of Bainbridge Island organization. DO NOT click links or open attachments unless you recognize the sender and know the content is safe.

Ellen Fairleigh, Planner

Ms Fairleigh,

I strongly support the application by AT&T to install antennas and other equipment on the KPUD water tower near Lynwood Center. As someone who lives in this neighborhood and uses AT&T cellular services, I know how poor the coverage is this area. Currently I have no confidence that a mobile '911' call placed in the community would get through. The environmental and visual impact that the additions make to the site will be minimal while the benefits to the surrounding areas are significant. I have requested AT&T improve coverage in this area several times, and I am now very pleased to see that this concern may be addressed soon.

Respectfully,

Mark Oppenhuizen
4551 Flying Goat Ave NE
B.I., WA 98110

mark.oppenhuizen@gmail.com

DESIGN for BAINBRIDGE
WORKSHEET
Bainbridge Island, Washington

INTRODUCTION

Design for Bainbridge (DforB) provides guidance for applicants to successfully navigate the design review process. The design review process, standards, and guidelines are structured to support good design and a deliberate design process from context and site down to design detailing. Design review is an iterative process intended to help applicants apply relevant standards and guidelines and develop designs for the project that fit Bainbridge Island and the unique context of the site. This iterative process contains three touch points with the Design Review Board (DRB). This worksheet is used to capture design information to be presented to the DRB at each step in the iterative process.

#1 Conceptual Proposal Review Meeting

The conceptual proposal review meeting is an informal meeting between the applicant and the Design Review Board to review site-specific conditions and contextual considerations for the design of development on site. This discussion is intended to inform strategies for site planning and massing that respond sensitively to the neighborhood context.

Applicant Submittal Requirements

- See DforB pages 12 & 16

#2 Design Guidance Review Meeting

Design guidance review meetings with the Design Review Board offer guidance to potential applicants during the design process on conceptual alternatives. The purpose of the design guidance review meeting is to review how the proposed alternatives fit the surrounding context with a focus on the development's program, uses, site plan, and massing. The DRB will also consider any requested departures, the rationale for those departures and their consistency with the intent and principles of the guidelines.

Applicant Submittal Requirements

- See DforB page 13
- Initial Design for Bainbridge Worksheet (below)

#3 Final Design Review Meeting

At this meeting, the Board will review the application plans for compliance with Design Standards and Design Guidelines and ensure that the project reflects any revisions recommended by the Board at previous meetings. The Board will document its findings and transmit a written recommendation to the Planning Commission. The Board's recommendation may include conditions to ensure compliance with all standards.

Applicant Submittal Requirements

- See DforB page 15
- Final Design for Bainbridge Worksheet (below)

NOTE: Submittal materials should be transmitted as individual pdfs, not as one large file.

DESIGN for BAINBRIDGE WORKSHEET
Bainbridge Island, Washington

PROJECT: BR0306 Bainbridge Lynwood Center	
PROJECT ADDRESS or PARCEL: 042402-1-054-2005 / NE Baker Hill Rd	
DATE: 1/28/21	
PROJECT PLANNER: Ellen Fairleigh	
Design Review Board Meeting Dates:	

CONTEXT ANALYSIS

C1 ANALYZE NATURAL SYSTEMS

C2 IDENTIFY THE EXTENT AND VALUE OF WILDLIFE HABITAT AND CORRIDORS

C3 ASSESS UNIQUE AND PROMINENT FEATURES

C4 CONSIDER THE DEFINING ATTRIBUTES OF THE BUILT ENVIRONMENT

C5 ANALYZE SYSTEMS OF MOVEMENT AND ACCESS

C6 STUDY HOW THE SITE RELATES TO AND CAN CONTRIBUTE TO THE PUBLIC REALM

Context Analysis Complete:

Yes: ☐ No: ☐

If no, required additional information:

SITE DESIGN STANDARDS

S1 PROTECT AND REPAIR NATURAL SYSTEMS

S2 PRESERVE AND ENRICH WILDLIFE HABITAT

S3 RESPECT AND MAGNIFY UNIQUE ASPECTS OF SITE AND CONTEXT

S4 COMPLEMENT AND CONTRIBUTE TO THE BUILT ENVIRONMENT AND LOCAL IDENTITY

S5 FIT THE PROJECT INTO THE SYSTEMS OF ACCESS AND MOVEMENT, PRIORITIZING PEDESTRIANS AND BICYCLES

S6 SUPPORT AND CONTRIBUTE TO A VIBRANT PUBLIC REALM

Applicant Response:

S1)

S1 PROTECT AND REPAIR NATURAL SYSTEMS:
The proposed Wireless Communications Facility (WCF) is a collocation of new panel antennas and associated equipment on the KPUD water tank on NE Baker Hill Road. Ground equipment will include two equipment shelters and generator mounted to a 6'x20' concrete pad (120 sf) within a10'x25' graveled lease area (250 sf). The proposed lease area is grass and moss covered and has a 53% slope down to the rear of the existing building. To protect the natural systems, KPUD will incorporate the cut, grade and installation of a retaining wall with their overall plan. The SWPPP plan ins included in the Zoning Drawings.

S2)

S2) PRESERVE AND ENRICH WILDLIFE HABITAT:

The proposed WCF is designed to have a minimum footprint. No trees or vegetation, other than grass and moss, will be removed. It is an unmanned facility and a passive use. There will be no impact to human and vehicular traffic; it uses no water and creates no waste; and it places no burden on transpiration and emergency services.

S3)

S)3 RESPECT AND MAGNIFY UNIQUE ASPECTS OF SITE AND CONTEXT:

The proposed WCF is designed to use the existing attributes of the site screen it. It will be inside a fenced and lock public utility district facility. The ground equipment is being placed behind the existing building and will be painted to match the roof of that building. The antennas are being placed on top of the water tank and will be painted to blend with the surroundings. It will be mostly screened from the road to the north by the existing building in front of it and vegetation along the fence perimeter; Screening to the east and south will be provided by the existing trees. Screening to the west is provided by the existing site obscuring fence and trees. [Please see photo simulations and zonding drawings.]

S4)

S4) COMPLEMENT AND CONTRIBUTE TO THE BUILT ENVIRONMENT AND LOCAL IDENTITY:

This is a wireless communication facility that will provide increased coverage to the Lynwood Center neighborhood and the surrounding SW tip of Bainbridge Island. It will also provide improved coverage for the Seattle-Bremerton ferries. The objective is to provide sufficient continuous and uninterrupted outdoor, in-vehicle, and in-building wireless service within the Targeted Service Area, resulting in fewer dropped calls, improved call quality, and improved access to additional wireless services the public now demands (this includes emergency 911 calls). [Please see the RF Justification for coverage maps.]

S5)

S5) FIT THE PROJECT INTO THE SYSTEMS OF ACCESS AND MOVEMENT, PRIORITIZING PEDESTRIANS AND BICYCLES:

The proposed WCF is an unmanned facility within a locked compound. It creates no traffic and will have no affect on pedestrian, bicycle, vehicular or public transportation

S6)

S6) SUPPORT AND CONTRIBUTE TO A VIBRANT PUBLIC REALM:

As outlined in S4) above, this facility will provide increased coverage to the Lynwood Center neighborhood and the surrounding SW tip of Bainbridge Island. It will also provide improved coverage for the Seattle-Bremerton ferries. The objective is to provide sufficient continuous and uninterrupted outdoor, in-vehicle, and in-building wireless service within the Targeted Service Area, resulting in fewer dropped calls, improved call quality, and improved access to additional wireless services the public now demands (this includes emergency 911 calls). [Please see the RF Justification for coverage maps.]

DRB Discussion:

S1)

S2)

S3)

S4)

S5)

S6)

DRB Findings:

PUBLIC REALM STANDARDS

P1 CREATE A SAFE AND COMFORTABLE ENVIRONMENT FOR WALKING AND CYCYLING

P2 MINIMIZE IMPACT OF VEHICLES ON THE PUBLIC REALM

P3 DESIGN TO SUPPORT A LEDGIBLE HEIRARCHY OF PUBLIC SPACES

P4 STRENGHTEN PUBLIC SPACE CONNECTIONS

P5 DRAW FROM AND ENHANCE EXISTING BLOCK PATTERNS

P6 FOSTER INTEREST AND ACTIVITY ALONG COMMERCIAL STREETS

Applicant Response:

P1)

P1) CREATE A SAFE AND COMFORTABLE ENVIRONMENT FOR WALKING AND CYCYLING:

The proposed facility will contribute to the safety of pedestrians and cyclists by providing reliable wireless phone coverage in the event of an emergency.

P2)

P2) MINIMIZE IMPACT OF VEHICLES ON THE PUBLIC REALM

As discussed above, this is an unmanned facility that will have no impact of vehicles on the public realm.

P3)

P3) DESIGN TO SUPPORT A LEDGIBLE HEIRARCHY OF PUBLIC SPACES

Unable to find a definition for ledgible. That being said, the proposed facility neither creates or obstructs public spaces.

P4)

P4) STRENGHTEN PUBLIC SPACE CONNECTIONS:

The increased ability to communicate provides increased safety in public spaces, as well as in homes and in vehicles.

P5)

P5) DRAW FROM AND ENHANCE EXISTING BLOCK PATTERNS

The proposed wireless facility is a passive use and neither draws from nor enhances block patterns.

P6)

P6) FOSTER INTEREST AND ACTIVITY ALONG COMMERCIAL STREETS

The Lynwood Center neighborhood is primarily residential with no major commercial streets and this standard is not applicable to the proposed WCF.

DRB Discussion:

P1)

P2)

P3)

P4)

P5)

P6)

DRB Findings:

DESIGN for BAINBRIDGE WORKSHEET
Bainbridge Island, Washington

BUILDING DESIGN STANDARDS

B1 EXPRESS A CLEAR ORGANIZING ARCHITECTURAL CONCEPT

B2 USE AN ARCHITECTURAL LANGUAGE APPROPRIATE TO BAINBRIDGE ISLAND

B3 CREATE WELL COMPOSED FACADES AT ALL SCALES

B4 CELEBRATE AND PROMINENTLY FEATURE SUSTAINABLE DESIGN

B5 USE HIGH QUALITY MATERIALS AND WELL-CRAFTED DETAILS

Applicant Response:

B1)

B1) EXPRESS A CLEAR ORGANIZING ARCHITECTURAL CONCEPT:

This is a wireless cell site facility designed to take advantage of the existing architecture for placement and screening. All elements will be painted to match the surroundings.

B2)

B2) USE AN ARCHITECTURAL LANGUAGE APPROPRIATE TO BAINBRIDGE ISLAND:

The proposed WCF is being placed within an existing utility compound and is designed to take advantage of the existing vegetation and building to screen it from public view.

B3)

B3) CREATE WELL COMPOSED FACADES AT ALL SCALES:

The ground equipment has been placed to minimize the impact to KPUD's primary use of the property and maximize screening. No facades are bing used.

B4)

B4) CELEBRATE AND PROMINENTLY FEATURE SUSTAINABLE DESIGN:

The proposed communications facility is to be placed within a public utility compound and the design blends with the existing use.

B5)

B5) USE HIGH QUALITY MATERIALS AND WELL-CRAFTED DETAILS:

The proposed WCF will be built to industry standards which will be supported by the structural analysis to be part of the Building Permit application submittal.

DRB Discussion:

B1)

B2)

B3)

B4)

B5)

DRB Findings:

LANDSCAPE STANDARDS

L1 INTEGRATE THE LANDSCAPE CONCEPT TO COMPLEMENT THE ARCHITECTURAL CONCEPTS

L2 SUPPORT THE PUBLIC REALM WITH THE LANDSCAPE DESIGN

L3 INTEGRATE SUSTAINABLE FEATURES INTO THE LANDSCAPE AND MAKE THEM VISIBLE WHEREVER POSSIBLE

L4 INTEGRATE AND HIGHLIGHT GREEN INFRASTRUCTURE PRACTICES

L5 SUPPORT HEALTHY HABITAT IN THE LANDSCAPE

L6 PRESERVE AND ENHANCE IMPORTANT VIEWS AND VIEW CORRIDORS

Applicant Response:

L1) L1 INTEGRATE THE LANDSCAPE CONCEPT TO COMPLEMENT THE ARCHITECTURAL CONCEPTS:

Applicant is prosing to utilize the existing physical attributes of the property, including trees, vegetation, contours, buildings and fencing in lieu of formal landscaping. This is at the request of the landowner, KPUD, to minimize the footprint of the WCF.

L2)

L2 SUPPORT THE PUBLIC REALM WITH THE LANDSCAPE DESIGN

Please see L1 above. No landscaping is being proposed.

L3)

L3 INTEGRATE SUSTAINABLE FEATURES INTO THE LANDSCAPE AND MAKE THEM VISIBLE WHEREVER POSSIBLE

Please see L1 above. No landscaping is being proposed.

L4)

L4 INTEGRATE AND HIGHLIGHT GREEN INFRASTRUCTURE PRACTICES:

As can be seen in the Zoning Drawings, a SWPPP plan is proposed to ensure sediment and sediment laden water do not enter the drainage system, roadways, or violate applicable water standards.

L5)

L5 SUPPORT HEALTHY HABITAT IN THE LANDSCAPE:

The proposed WCF will have minimal impact on the natural landscape and no additional landscaping is proposed.

L6)

L6 PRESERVE AND ENHANCE IMPORTANT VIEWS AND VIEW CORRIDORS: As can be seen in the photo simulations, the proposed WCF will have no impact on views and view corridors.

DRB Discussion:

L1)

L2)

L3)

L4)

L5)

L6)

DRB Findings:

STREET TYPES AND FRONTAGES

Street Types: State Route, Main Street, Neighborhood Main Street, Neighborhood Mixed Use, Mixed Use Arterial, Rural by Design, Green Street Rural Green Street

Applicant Response:

The property on which the proposed WCF will be located fonts on NE Baker Hill Road. The ground equipment will be set back 96'. It is in the R-5 zone and does not abut any other streets. The nearest intersection is Lynwood Center Road NE and NE Baker Hill Road approximately 639 feet to the west.

DRB Discussion:

DRB Findings:

Frontages: Linear / Storefront, Landscape, Plaza, Forecourt, Stoop / Terrace, Vegetated Buffer, Parking

Applicant Response:

The property is in a residential neighborhood and relies on the existing natural vegetation to provide landscaping. There are no storefronts, forecourts, stoops etc.

DRB Discussion:

DRB Findings:

DESIGN for BAINBRIDGE WORKSHEET

Bainbridge Island, Washington

SUBDIVISION GUIDELINES

ISLAND CHARACTER PRESERVE AND MAINTAIN ISLAND CHARACTER

Applicant Response:

The proposal is for a wireless telecommunications facility to be located within an existing public utility district water tower compound.

DRB Discussion:

DESIGN for BAINBRIDGE WORKSHEET
Bainbridge Island, Washington

NEIGHBORHOOD CONTEXT TO REFLECT AND/OR ENHANCE THE CONTEXT PROVIDED BY EXISTING ROADWAY CHARACTER AND NEIGHBORING PROPERTIES

Applicant Response:

The proposal is for a wireless telecommunications facility to be located within an existing public utility district water tower compound.

DRB Discussion:

DESIGN for BAINBRIDGE WORKSHEET
Bainbridge Island, Washington

NATURAL AREA TO INCORPORATE FORESTED AND/OR OTHER NATURAL AREAS INTO SITE DESIGN IN SUCH A WAY THAT ECOLOGICAL AND AESTHETIC INTERGRITY, QUALITIES, AND VALUES ARE PRESERVED OR RESTORED

Applicant Response:

No existing vegetation, except for a 250 sf area of grass/moss will be disturbed.

DRB Discussion:

DESIGN for BAINBRIDGE WORKSHEET
Bainbridge Island, Washington

NATURAL SITE CONDITIONS TO PRESERVE AND INTEGRATE EXISTING NATURAL SITE PATTERNS AND FEATURES THROUGHOUT THE SITE

Applicant Response:

No existing vegetation, except for a 250 sf area of grass/moss will be disturbed.

DRB Discussion:

HISTORIC AND CULTURAL RESOURCES TO PRESERVE IMPORTANT HISTORIC AND CULTURAL RESOURCES

Applicant Response:

There are no important historical and cultural resources on the site.

DRB Discussion:

DESIGN for BAINBRIDGE WORKSHEET
Bainbridge Island, Washington

STORMWATER INTEGRATE STORMWATER FACILITIES IN SITE DESIGN WITH EMPHASIS ON INFILTRATION AND DISPERSION PRACTICES

Applicant Response:

A SWPPP plan is included in the zoning drawings.

DRB Discussion:

DESIGN for BAINBRIDGE WORKSHEET
Bainbridge Island, Washington

SEPTIC SYSTEMS TO MINIMIZE IMPACT OF SEPTIC FACILITIES

Applicant Response:

There is no septic system on site.

DRB Discussion:

DESIGN for BAINBRIDGE WORKSHEET
Bainbridge Island, Washington

WATER CONSERVATION TO PROTECT THE ISLAND'S FINITE GROUNDWATER RESOURCES AND ADAPT TO THE IMPACTS OF A CHANGING CLIMATES

Applicant Response:

This is an unmanned facility and does not consume water.

DRB Discussion:

DESIGN for BAINBRIDGE WORKSHEET
Bainbridge Island, Washington

COMMUNITY SPACE TO PROMOTE A SHARED SENSE OF COMMUNITY

Applicant Response:

The proposed WCF will provide enhanced communication options to the neighborhood community.

DRB Discussion:

CLUSTER HOMESITES TO PROMOTE INTERACTION WITHIN THE COMMUNITY AND FACILITATE THE EFFICIENT USE OF LAND BY REDUCING DISTURBED AREAS, IMPERVIOUS SURFACES, UTILITY EXTENSIONS AND ROADWAYS

Applicant Response:

This is not a residential development and this standard is not applicable.

DRB Discussion:

SOLAR ACCESS TO PROVIDE SOLAR ACCESS FOR WELLBEING AND ENERGY PRODUCTION

Applicant Response:

The proposed WCF does not rely on or create solar access.

DRB Discussion:

DESIGN for BAINBRIDGE WORKSHEET
Bainbridge Island, Washington

ACCESS AND CIRCULATION TO PROVIDE A PRACTICAL AND PLEASANT NETWORK OF MULTI-MODAL CIRCULATION

Applicant Response:

DRB Discussion:

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MOTOR VEHICLES TO MINIMIZE THE PROMINENCE OF MOTOR VEHICLE USE AND STORAGE

Applicant Response:

This is an unmanned facility. Vehicular visits will be limited to one civilian car approximately one time per month.

DRB Discussion:

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HOMESITE DESIGN TO EFFICIENTLY CONFIGURE BUILDING FOOTPRINT(S) AND ALLOWED USES WITHIN A HOMESITE

Applicant Response:

This is not a home-site development and this standard is not applicable.

DRB Discussion:

DIVERSITY IN HOUSE DESIGN TO PROVIDE A RANGE OF HOME SIZES AND DESIGNS TO ACHIEVE DIVERSITY IN VISUAL APPEARANCE AND AFFORDABILITY

Applicant Response:

This is not a housing development and this standard is not applicable.

DRB Discussion:

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LARGER SITES

STANDARD1 DESIGN THE SITE BY CLUSTERING BUILDINGS AND ARRANGING THEM WITH FRONTAGES ON PUBLIC STREETS, PUBLIC SPACES, OR OPEN SPACE.

STANDARD2 DESIGN SITES TO MINIMIZE THE VISUAL IMPACT OF PARKING ON THE PUBLIC REALM.

Applicant Response:

Standard 1)

This standard does not apply to this proposal for a WCF.

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FACING PUBLIC STREETS TO REINFORCE NEIGHBORLINESS OF HOMES ALONG A PUBLIC STREET

Applicant Response:

This standard does not apply to this proposal for a WCF.

DRB Discussion:

DRB Findings:

Standard 2)

This standard does not apply to this proposal for a WCF.

DRB Discussion:

Standard 1)

Standard 2)

DRB Findings:

HISTORIC PLACES

STANDARD1 DESIGN THE SITE, BUILDING(s), AND LANDSCAPE TO BE COMPATIBLE WITH HISTORIC BUILDINGS WITHOUT DIRECTLY MIMICKING HISTORIC ARCHITECTURAL STYLES.

STANDARD2 MAINTAIN THE HISTORIC INTEGRITY OF BUILDINGS OVER 50 YEARS OLD LISTED OR ELIGIBLE FOR THE NATIONAL OR LOCAL REGISTER OF HISTORIC PLACES.

Applicant Response:

Standard 1)

This standard does not apply to this proposal for a WCF.

Standard 2)

This standard does not apply to this proposal for a WCF.

DRB Discussion:

Standard 1)

Standard 2)

DRB Findings:

CIVIC USES

STANDARD1 DESIGN CIVIC USES AND SITES TO REFLECT AND CONTRIBUTE TO THEIR FUNCTION AND ROLE IN THE COMMUNITY WHILE BEING CLEARLY INDENTIFIABLE AS A CIVIC USE.

STANDARD2 DESIGN CIVIC SITES AND BUILDINGS TO SERVE MULTIPLE FUNCTIONS SUCH AS PULIC SPACE, COMMUNITY GATHERINGS, PUBLIC ART, AND OTHER COMPATIBLE USES.

Applicant Response:

Standard 1)

This standard does not apply to this proposal for a WCF.

Standard 2)

This standard does not apply to this proposal for a WCF.

DRB Discussion:

Standard 1)

Standard 2)

DRB Findings:

DESIGN for BAINBRIDGE WORKSHEET
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This project is recommended for:

Approval ☐

Approval with the following conditions: ☐

Denial with the following deficiencies: ☐

SIGNATURE: ______________________________ **DATE**:

Chair, Design Review Board

Site Photos: