

Seattle Permits

— part of a multi-departmental City of Seattle series on getting a permit

Tree Requirements Associated with Development

Updated December 18, 2023

The purpose of this Tip is to outline the tree protection requirements for sites undergoing development in Neighborhood Residential, Residential Small Lot, Lowrise, Midrise, Neighborhood Commercial, Commercial, and Seattle Mixed Use zones. It also details the information needed for Seattle Department of Construction and Inspections (SDCI) review of a development permit application when the tree protection requirements apply.

Trees are valuable because they enhance the City's health and beauty. Trees need protection through careful and thoughtful design as development and density increases in Seattle. To address trees during construc-

tion, and help maintain Seattle's urban canopy, [Seattle Municipal Code \(SMC\) 25.11](#) includes tree protection requirements. Tree regulations apply to trees 6 inches DSH (diameter at standard height) or greater that are retained through the construction process.

Tier 1 (Heritage Trees) and Tier 2 trees (tree groves, trees 24" or greater DSH and smaller trees designated as Tier 2 by Director's Rule) are protected on developing property in Neighborhood Residential, Lowrise, Midrise, Commercial, and Seattle Mixed zones and may not be removed unless specific requirements are met. You should consider the location and canopy spread of the existing trees on your site in the earliest stages of your design and consider ways to protect trees currently contributing to our urban canopy. SDCI needs accurate, detailed, and complete information about each tree to determine whether they must be retained or are allowed to be removed. Providing that information with your application submittal will save time in the review process. If your site is designed with the assumption, based

Limits on Tree Removal and Replacement Requirements on Developing Property in Neighborhood Residential, Residential Small Lot, Lowrise, Midrise, Neighborhood Commercial, Commercial, and Seattle Mixed Use zones¹

	Tree Removal Limits	Replacement Required
Tier 1 trees	May not be removed unless hazardous or an emergency action	Yes
Tier 2 trees	May not be removed unless hazardous, an emergency action, or permitted to achieve allowed development capacity per SMC 25.11.070 and 25.11.080	Yes
Tier 3 trees	May be removed as part of a development permit	Yes
Tier 4 trees	May be removed as part of a development permit	No
Off-site trees with canopy or roots overhanging	Must be retained. The responsible owner of the tree may request removal that complies with SMC 25.11 (see Tip 242B).	NA

1. In all other zones, all trees may be removed on developing property. Tier 1, Tier 2, and Tier 3 trees removed in association with development must be replaced by one or more new trees.



on inaccurate information, that a tree may be removed, it will be time-consuming to make the change if the tree must be retained.

What are the Tree Removal Limits on Developing Property?

If you are developing your property, it's best to consider the tree protection regulations early in the design process. Seattle's tree protection regulations include limits on tree removal as part of a development permit in Neighborhood Residential, Residential Small Lot, Low-rise, Midrise, Neighborhood Commercial, Commercial, and Seattle Mixed Use zones, summarized in the chart on page 1.

What is the Basic Tree Protection Area?

The tree protection regulations include use of development area calculations and site constraints to determine if Tier 2 trees may be removed on sites undergoing development in Neighborhood Residential and Lowrise zones. The area calculations are based on the square footage of allowable lot coverage (NR/RSL zones), or of the site (LR zones), as it relates to the square footage of the basic tree protection area. The basic tree protection area consists of the area surrounding the tree in which excavation or other construction-related activity must be avoided, unless approved by the Director. This area is delineated by a circle around the tree that is equal to 1 foot radius for every 1 inch of trunk diameter. The larger the area of the lot restricted by the basic tree protection area, the more likely a tree will be allowed to be removed. Once the basic tree protection area is established, it cannot be modified as part of the calculation to determine if a Tier 2 tree may be removed. Keep in mind that even though the code allows removal, some sites offer opportunity to balance development with retention of urban trees and a modified tree protection area is allowed.

Given the benefits of urban trees, you may consider protecting a Tier 2 tree as part of your project despite the code allowance for removal. We encourage you to work with an arborist early in your development process to identify sites that are good candidates for tree retention as part of your site design. See our guide "Site Design and Trees" at the end of this Tip to learn more about how to show the basic tree protection area calculations in the plans when needed to confirm a tree may be removed.

What is the relationship between the basic tree protection area and tree protection needed during construction?

For most trees, the basic tree protection area, when drawn at a ratio of 1 foot for every 1 inch of trunk diameter, will be larger than is necessary to protect the tree during development. Understanding the difference is helpful when determining whether a site is a good candidate for tree retention. Typically, protecting trees at the dripline is sufficient to ensure continued health of the tree after construction. Working with an arborist, the tree protection needed during construction could also be less than the dripline when considering the site, species, and type of work proposed around the tree.

Developers interested in retaining trees can email SDCI-trees@seattle.gov to consult with SDCI arborists for ideas on how best to protect the tree during construction. If an applicant chooses to retain one or more Tier 2 trees that would be allowed to be removed due to the basic tree protection area calculation in Lowrise, Midrise, Commercial, or Seattle Mixed zones, specific modifications to development standards may be approved as a Type 1 decision to help locate the proposed development on the site while protecting the tree. Development in those zones subject to design review may use the available Type II design review departures in Title 23.

Calculating the Basic Tree Protection Area in Neighborhood Residential Zones (NR and RSL)

For the purposes of determining whether Tier 2 trees may be removed according to SMC subsection 25.11.070.A in Neighborhood Residential zones, a basic tree protection area is required for any on-site Tier 2 tree. This basic tree protection area is required to be shown within any plan set submitted for a Master Use Permit or building permit.

In Neighborhood Residential zones, there are three distinct regulations that would allow a Tier 2 tree to be removed. Extension into the required front and rear yards is available to provide flexibility for where structures may be placed on a site to possibly allow you to develop a lot and preserve a tree. Analysis of tree removal is based on the permit applicant's proposal. The proposal used in the analysis must be substantially similar to the proposal that is subject to the permit application.

- A Tier 2 tree may be removed if you cannot achieve the allowable lot coverage per Title 23 due to the size and location of the basic tree protection area AND your proposal cannot be achieved within the buildable areas on the site, including extension into required yards. Your lot coverage calculation must include all areas of the lot that are not part of an environmentally critical area (ECA), regardless of width or depth. If an ECA modification, reduction or waiver is

granted, only that area of the lot where development remains prohibited should be removed from the lot coverage calculation. When the basic tree protection covers a portion of the principal building area, you must evaluate whether extension into required yards to recoup that area of the principal buildable area would allow your project without removing the tree.

- A Tier 2 tree may be removed if site characteristics and/or land use standards would result in a site design where a resultant portion of a principal dwelling unit, or an accessory dwelling unit, would be less than 15 feet in width because the basic tree protection area would constrain available development area to a footprint of less than 15 feet.
- A Tier 2 tree may be removed if necessary to construct proposed structures (such as a needed retaining wall or access for utilities) or to provide vehicular access to a site when parking is required by code. Tree removal under this scenario will not be authorized if viable alternatives exist that would allow adequate protection of the tree during construction according to SMC 25.11.060.

Calculating the Basic Tree Protection Area in Lowrise, Midrise, Commercial, Seattle Mixed Zones

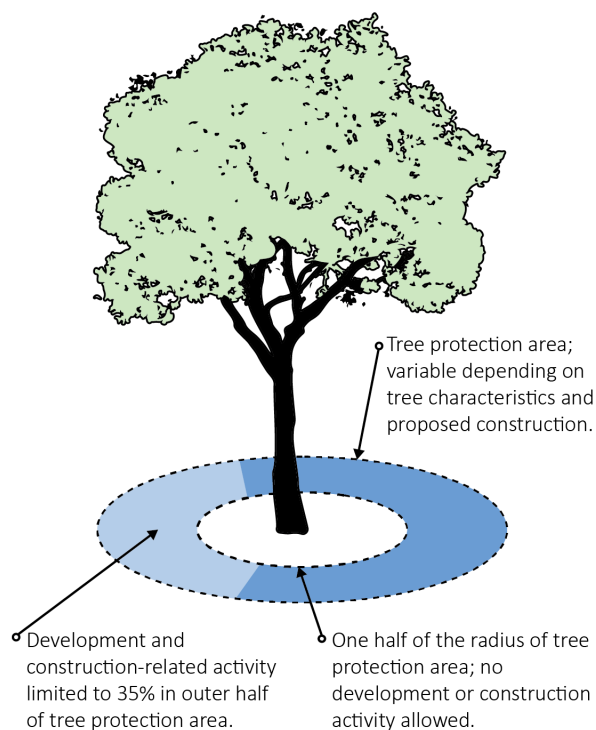
The code allows a development area allowance of 85% in Lowrise zones that is to be free from the basic tree protection area. As such, a Tier 2 tree in Lowrise zones may be allowed to be removed if the basic tree protection area covers more than 15% of the lot. For the purposes of determining whether Tier 2 trees may be removed pursuant to SMC subsection 25.11.070.B, a basic tree protection area is required for any on-site Tier 2 tree and any off-site Tier 1, Tier 2, and Tier 3 tree with canopies overhanging and/or roots extending onto the development site. These basic tree protection areas are required to be shown within any plan set submitted for a Master Use Permit or building permit.

In Midrise, Commercial, and Seattle Mixed Zones, the code allows a development area allowance of 100%, therefore, on-site Tier 2 trees in those zones may be removed when development is proposed; however, as previously noted, development standard modifications or departures are available for projects that choose to retain a tree that would otherwise be permitted for removal.

What are the Tree Protection Requirements on Developing Property?

During construction, a tree protection area is required for all Tier 1, Tier 2, Tier 3, and Tier 4 trees to be retained during development, including all off-site Tier 1, Tier 2, and Tier 3 trees with canopies overhanging and/or roots extending onto the lot. The tree protection area is an area surrounding a tree defined by a specified distance, in which excavation and other construction-related activities must be avoided, unless approved by the Director. The tree protection area is variable depending on species, age and health of the tree, soil conditions, and proposed construction.

In most cases, the starting point for the tree protection area used for construction is the drip line. The tree protection area used to protect a Tier 2 tree during construction will never be larger than the basic tree protection area used to determine whether a Tier 2 tree may be removed. For all trees, the tree protection area may be less than the entire area within the drip line pursuant to SMC subsection 25.11.060.A. For purposes of determining the extent to which the tree protection area may be smaller than the drip line, a circle representing the dripline is used, or in the case of an irregular drip line, a circle determined by the average extent of the outer branches is used. The inner half of the drip line or average drip line circle will always be fully protected for trees



to be retained on a site. The outer half of the drip line or average drip line circle may be reduced by no more than 35%. Existing development within the drip line may be replaced if there is no adverse impact to the tree.

The tree protection area for off-site Tier 1, Tier 2, and Tier 3 trees with canopies overhanging or roots extending onto the lot must include the entire area within the drip line with the exception of existing development that is retained or replaced and temporary reductions per SMC subsection 25.11.060.A.4.d. If maintaining a tree protection area of off-site trees in LR, MR, Commercial, and Seattle Mixed zones is impacting your proposal, specific modifications to development standards may be approved as a Type 1 decision to help locate the proposed development on the site while protecting the tree(s). Development subject to design review may utilize the available Type II design review departures in Title 23.

What are the Tree Replacement Requirements on Developing Property?

In all zones, you must replace each Tier 1, Tier 2, and Tier 3 tree authorized for removal in association with development. Replacement must include one or more new trees, to result, upon maturity, in a canopy cover that is at least roughly proportional to the canopy cover prior to tree removal. If tree removal is approved, the applicant may elect to make a voluntary payment in lieu of tree replacement on-site. See Director's Rule 8-2023, [Payment in lieu of tree replacement pursuant to the Tree Protection Code](#). While each tree must be mitigated by either replacement or a payment in lieu, a combination of planting trees on site, planting trees off-site and/or payment in lieu is allowed when more than one tree is removed from a site. Where there is on-site tree replacement in association with development, removal of all invasive vegetation is required. When on-site replacement is proposed, such trees may count toward the Green Factor requirements under SMC [23.86.019](#) and a list of acceptable replacement trees can be found on the [Green Factor Tree List](#). When off-site replacement is proposed, preference for the location is be on public property. Additional information about tree replacement requirements can be found in Director's Rule 12-2023.

What Information is Needed in an Arborist Report?

SDCI requires an arborist report if you propose a tree protection area smaller than the dripline for any Tier 1, Tier 2, Tier 3, or Tier 4 tree to be retained during development. If a report is required, it must be completed

by a certified arborist on SDCI's [Tree Service Provider Registry](#) and include an assessment of impacts to the tree resulting from the proposed development.

The arborist report must include:

- A complete and accurate inventory of all Tier 1, Tier 2, Tier 3, and Tier 4 trees on-site or off-site with canopies overhanging and/or roots extending onto the site
- Accurate identification including common name and scientific name (genus and species)
- Diameter at standard height (DSH)
- A scaled drawing that locates all trees in relation to existing site conditions such as buildings, driveways, rockeries, fences, utilities, etc.
- Dripline diameter and dimensioned/scaled representation on a site plan
- General tree health (pre-development condition)
- A tree risk assessment, if applicable
- Signature and credentials of the registered Tree Service Provider completing the report
- Pruning plan, if applicable
- Monitoring plan, if applicable

If needed to evaluate the proposed tree protection area/s and determine the long-term survival and health of trees to be retained during development, SDCI may require that the report include:

- An assessment of the proposed design determining if the proposed disturbance will negatively impact the tree's health. No disturbance is allowed in the inner half of the tree protection area.
- An evaluation of each tree's health, location, and extent of anticipated disturbance to support any proposed encroachment into up to 35 percent of the outer tree protection area.
- Fact-based information for methods to minimize impacts of excavation and other construction-related activities by suggesting design changes and/or alternative construction methods. Specifically, how anticipated impacts could be reduced, minimized, and/or mitigated. Examples include air-excavation, pier and beam construction, slab on-grade, etc.

If the project includes on-site tree replacement, the report must also include:

- Specifications for soil improvement, including decompaction, amendment, and mulching
- Proposed irrigation and the type of system(s) needed to meet maintenance requirements for 5 years of watering
- Signature of arborist, verifying that the replacement trees are appropriately sited and specified, and that the replacement trees meet the requirements of 25.11.090 and associated Director's Rules

What Information is Needed on the Plan Set?

Site plan drawings in submitted architectural, civil (CSC and DWC), and landscape plan sheets must clearly show and label the information below. Occasionally, projects will need to provide tree related information on architectural elevations and/or structural foundation plans or detail sheets. We will issue a correction notice if there are inconsistencies between your submitted drawing sheets (survey, architectural, civil CSC & DWC, and landscape site plans).

- All Tier 1, Tier 2, Tier 4, and Tier 4 trees on-site or off-site with canopies overhanging and/or roots extending onto site. Be sure to identify those that will be retained during development and those that are proposed for removal. Only on-site trees will be evaluated for removal; off-site trees with canopies overhanging and/or roots extending onto site will be considered as trees that will be retained during development.
- A table listing common name, genus, species, trunk diameter at standard height (DSH), general health, tier, and whether the trees are proposed for removal or retention.
- All areas of over-excavation for proposed construction located within 5 feet of tree protection areas.
- Delineation of tree protection areas for all Tier 1, Tier 2, and Tier 3 trees to be retained during development, including off-site trees with canopies overhanging and/or roots extending onto the site with dimensions from tree trunk or other site features to be fenced so workers and inspectors can accurately locate them in the field. All tree protection areas must be protected with tree protection fencing and include the SDCI approved construction detail: [Tree and Vegetation Protection Detail](#).

- When tree protection is required, a note indicating that “No disturbance is permitted within the fenced area.”
- A calculation of the total area (square feet) of proposed disturbance in the outer half of the tree protection area divided by the total area of the outer half of the tree protection area (square feet) documenting that the proposed disturbance does not exceed 35 percent the outer half of the tree protection area.
- Architectural elevation drawing: If a proposed building would require pruning of a tree branch in the tree protection area, show the tree and the proposed building to demonstrate the percentage of the tree's canopy removed.
- Drainage and Wastewater Control Plan (DWC): Show trees to be retained and tree protection areas.
- Construction Stormwater Control Plan (CSC): Show trees to be retained and tree protection areas. If perimeter protection is required, note that filter fence that requires trenching is not allowed in the tree protection area. It should either be placed outside the tree protection fence or replaced with compost sock, which is a less-invasive erosion control technique.
- Notes and/or instruction from the arborist report for specific construction techniques to minimize or avoid disturbance within the tree protection area.
- Documentation of compliance with tree replacement requirements.
- Documentation of development capacity calculation per SMC 25.11.070.A or 25.11.070.B.

Still Need Help?

The best way to contact our staff is via email at sdci-trees@seattle.gov or through SDCI's [Submit a Request](#) form. To help route your request, indicate that you need help with “Permits, codes, zones, plans,” then select “Land Use” as the type of help you need, and then select “Trees” in the description field. If necessary, we can set up a virtual meeting to discuss potential or actual projects.

Customers may also contact us at (206) 233-5185 if you have questions and/or need interpretation services (please be prepared to share your preferred language to help us locate the appropriate support).

Clarification of Terms

- **Arborist Report:** For the purposes of this tip, “arborist report” refers to any document prepared by an arborist including, but not limited to, a tree protection report, tree inventory, tree assessment, or report/plan required by SDCI.
- **Dripline:** An area encircling the base of a tree, the minimum extent of which is delineated by a vertical line extending from the outer limit of a tree’s branch tips down to the ground. The drip line may be irregular in shape to reflect variation in branch outer limits.
- **Hazardous tree:** Any tree or tree part that poses a high risk of damage to persons or property, and that is designated as such by the Director according to the tree hazard evaluation standards established by the International Society of Arboriculture (ISA).
- **Tier 1 tree:** A heritage tree. A heritage tree is a tree or group of trees as defined in Title 15. You can learn more about heritage trees by visiting the City’s [heritage tree program](#).
- **Tier 2 tree:** Any tree that is 24 inches in diameter at standard height or greater, tree groves, each tree comprising a tree grove, and specific tree species below 24 inches in diameter at standard height as provided by Director’s Rule 7-2023, [Designation of Tier 2 Trees](#).
- **Tier 3 tree:** Any tree that is 12 inches in diameter at standard height or greater but less than 24 inches in diameter at standard height and is not defined as a Tier 1 or Tier 2 tree.
- **Tier 4 tree:** Any tree that is 6 inches or greater in diameter at standard height but less than 12 inches in diameter at standard height and is not defined as a Tier 1 or Tier 2 tree.
- **Tree Service Provider:** Any person or entity engaged in commercial tree work.

Resources

For more information on existing regulations, read:

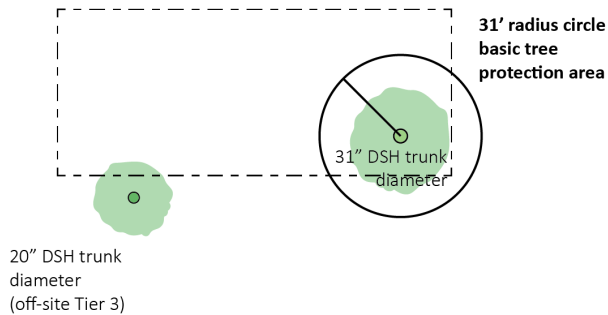
- Tree Protection, Seattle Municipal Code (SMC 25.11) https://library.municode.com/wa/seattle/codes/municipal_code?nodeId=TIT25ENPRHIPR_CH25.11TRPR
- Director’s Rule 7-2023, Designation of Tier 2 Trees <https://web.seattle.gov/DPD/DirRulesViewer/Rule.aspx?id=7-2023>
- Director’s Rule 8-2023, Payment in lieu of tree replacement pursuant to the Tree Protection Code <https://web.seattle.gov/DPD/DirRulesViewer/Rule.aspx?id=8-2023>
- Tip 103, Site Plan Requirements www.seattle.gov/DPD/Publications/CAM/cam103.pdf
- Tip 103A, Site Plan Guidelines, www.seattle.gov/DPD/Publications/CAM/cam103A.pdf
- Tip 242B, Tree Removal on Private Property www.seattle.gov/DPD/Publications/CAM/Tip242B.pdf
- Tip 242C, SDCI Tree Service Provider Registry www.seattle.gov/DPD/Publications/CAM/Tip242C.pdf
- Tip 242D, Tree Public Notice www.seattle.gov/DPD/Publications/CAM/Tip242D.pdf
- Standard Detail (SDCI): Tree and Vegetation Protection Detail www.seattle.gov/Documents/Departments/SDCI/Codes/TreeDetail.pdf
- Tree service providers: SDCI Tree Service Provider Directory. [www.seattle.gov/sdci/codes/codes-we-enforce-\(a-z\)/trees-and-codes/tree-service-provider-directory](http://www.seattle.gov/sdci/codes/codes-we-enforce-(a-z)/trees-and-codes/tree-service-provider-directory)
- Tree cutting: Reporting illegal tree cutting. www.seattle.gov/sdci/codes/make%C2%A0a-property-or-building-complaint

Access to Information

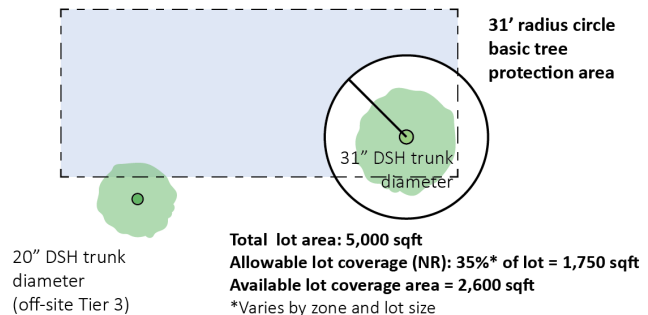
Links to SDCI Tips, Director’s Rules, and Seattle Municipal Code are available on our website at www.seattle.gov/sdci.

Site Design and Trees in Neighborhood Residential Zones

- To determine if tree removal is allowed to achieve your proposed design, begin your basic tree protection area calculation. For all on-site Tier 2 trees, delineate the basic tree protection area (e.g. 1 foot radius for every 1 inch of trunk diameter).

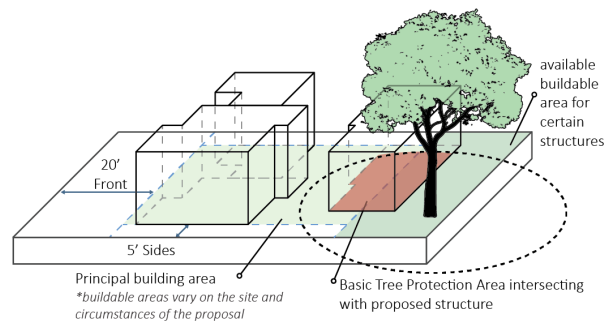


- Compare the maximum lot coverage to the lot area not covered by the basic tree protections area(s). If the total area is less than the maximum lot coverage, the Tier 2 tree may be removed. If it is equal or more than the maximum coverage determine if there is sufficient buildable area for your proposal.

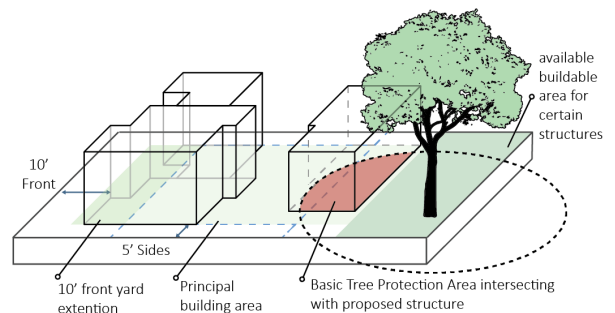


- Next determine if you can achieve the lot coverage of your proposed project in the "buildable areas" of the site without forcing a portion of the proposal to be less than 15 feet in width.*

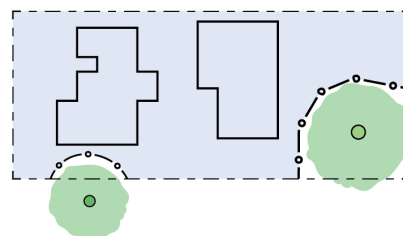
Proposal: Single Family Dwelling + AADU + DADU



- If additional principal building area is needed for your proposal, you must extend into the required front or rear yards to recoup the area of the principal building area that is covered by the basic tree protection area. You can extend into the yard up to a distance of 50% of the requirement (e.g. the maximum extension into a 20' required front yard is 10'). In this example, extension into the yards does not offer sufficient buildable area for the proposal and the basic tree protection area causes a portion of the DADU to be less than 15' so the tree is eligible for removal.



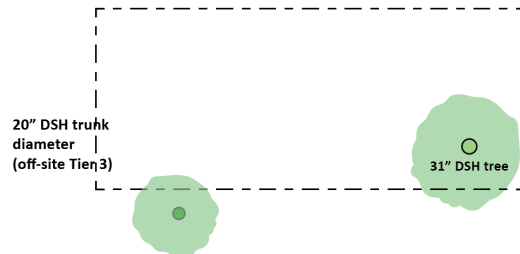
- Even if the tree is eligible for removal, consider working with an arborist to determine the actual tree protection needed to protect the Tier 2 tree as well as any other trees retained on the lot. Remember that the actual tree protection needed to protect the tree during development is always smaller than the basic tree protection area, leaving more room to fit your design on the site.



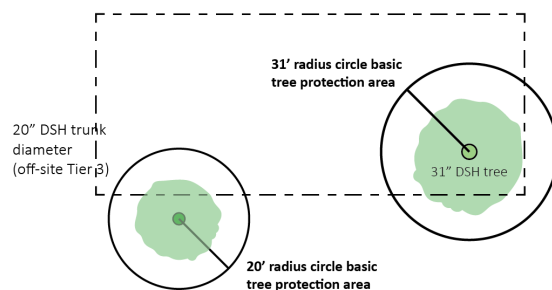
Congratulations! You saved an urban tree and increased our housing stock!

Site Design and Trees in Lowrise Zones

- 1. Prior to site design:** Look critically at your site and proposed design in conjunction with an arborist to determine whether the actual tree protection needed to protect the trees during development would allow for tree retention and your proposed development.



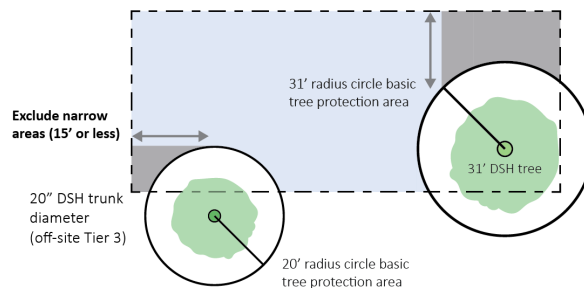
- If tree removal is desired to achieve your proposed design, or you believe your design could work better with the available development standard modifications for retained trees, begin your basic tree protection calculation. For all on-site Tier 2 trees, and any off-site Tier 1, Tier 2, or Tier 3 trees, delineate the basic tree protection area (e.g. 1 foot radius for every 1 inch of trunk diameter).



- Calculate the area of the lot not covered by the basic tree protection. If the area is less than 85% of the total lot area, on-site tree removal is allowed. In this example, the available development area is less than 85% of the lot so the tree is eligible for removal.

Total lot area: 4,500 sq ft
85% allowable development area: 3,825 sq ft
Available development area = 2,800 sq ft

- Areas 15' wide or less
- Development area



- Even though tree removal is authorized, you may be able to achieve your proposed design by utilizing development standard modifications, such as setback reductions and reduced amenity areas. Remember that the actual tree protection needed to protect the tree during development is always smaller than the basic tree protection area, leaving more room to fit your design on the site.

Congratulations! You saved an urban tree and increased our housing stock!

