

CREDIT FOR EXISTING TREES

Trees located on a residential lot can provide some benefit to storm water runoff reduction and can be used for credit in reducing the total net impervious area on a residential infill sites. Trees reduce runoff through rainfall interception by the tree canopy, by releasing water into the atmosphere through evapotranspiration, and by promoting infiltration and storage of water in the soil.

CRITERIA

Each tree with an adjusted Diameter Breast Height (DBH) of 8 inches or greater can reduce the impervious area by 50 square feet if certain conditions are met:

- No more than 20% of the net added impervious area (IA) can be mitigated with the credit.
- The location, species, and size of each tree being counted for credit is shown on the plan of record. A picture of the tree should be included with the application.
- The tree is protected during construction.
- Bradford Pears and Ash trees will not be counted for credit.
- With the exception of the Vegetated Filter Strip Green Infrastructure Control, trees that are located within the boundaries of the constructed stormwater infrastructure features cannot be counted for Infill Stormwater Credit.

If the protected tree(s) dies or is removed, the property owner may be subject to enforcement and will be responsible for providing impervious area treatment. This may include planting and maintaining additional trees or installing Green Infrastructure Controls.

MEASURING DBH

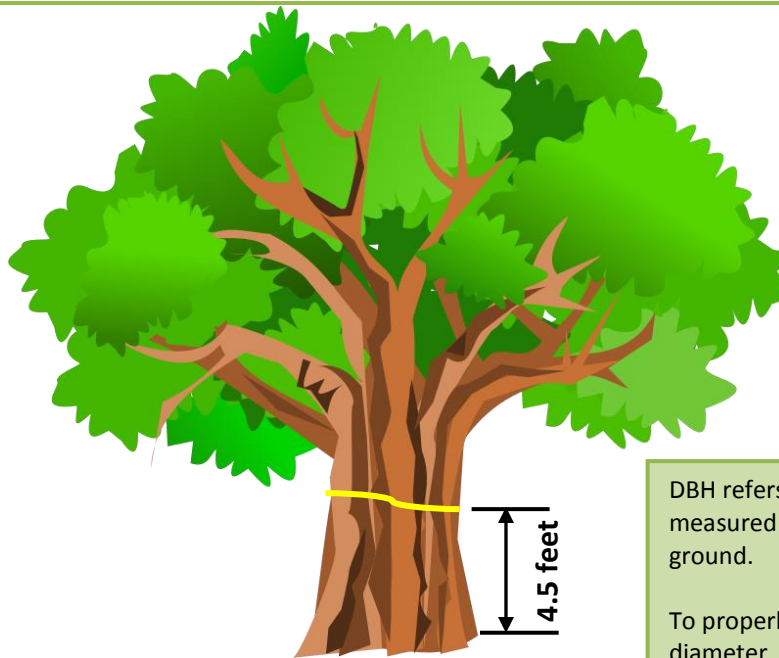


Figure 1: Measuring DBH

DBH refers to the tree diameter measured at 4.5 feet above the ground.

To properly determine the diameter, measure the length around the trunk and divide by 3.14.



ADJUSTED DIAMETER

To calculate the tree's Adjusted Diameter, the DBH is multiplied by the tree's condition rating.

- The Condition Rating is the numerical expression of a tree's condition expressed as a percentage from zero (a dead tree) to 100 (a perfectly healthy tree as described in the manual Guide for Plant Appraisal published by the International Society of Arboriculture).
 - For example, if a tree has a DBH of 32 inches in diameter and is in relatively poor health with a condition rating of 40%, its adjusted diameter is 12.8 inches. ($32'' \times 0.40 = 12.8''$)
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EXISTING TREES – LAYOUT SKETCH

PROVIDE PLAN VIEW OF TREE LOCATIONS AND HOUSE SHOWING DRAINAGE AREA DIRECTED TO THE LOCATION.

<p>DBH CALCULATION:</p> <p>MEASURE CIRCUMFERENCE OF TREE 4.5 FEET ABOVE THE GROUND.</p> <p>CIRCUMFERENCE = _____ INCHES</p> $DBH = \frac{CIRCUMFERENCE}{3.14}$ <p>DBH = _____ INCHES</p> <p>CONDITION RATING = _____ %</p> <p style="text-align: center;"><i>ADJUSTED DBH = CONDITION RATING × DBH</i></p> <p>ADJUSTED DBH= _____</p> <p>TREE SPECIES: _____</p> <p>DIFFERENTIAL IA ON SITE: _____ SQ FT</p> <p>AMENDED IA = DIFFERENTIAL IA – (50 SQ FT X _____ TREES)</p> <p>TOTAL PERCENTAGE OF REDUCTION IN IA:</p> $PERCENTAGE = \frac{DIFFERENTIAL IA}{AMENDED IA} - 1$ <p>PERCENTAGE = _____ %</p>	<p>MAINTENANCE:</p> <ol style="list-style-type: none"> 1. MULCH TREE WITH A 2-4 INCH LAYER OF MULCH IN A DOUGHNUT-SHAPED RING. THE RING SHOULD EXTEND 2' TO 4' BEYOND THE TRUNK. 2. DO NOT PILE MULCH AGAINST THE TREE TRUNK. PULL MULCH BACK SEVERAL INCHES FROM THE TRUNK SO THE BASE OF THE ROOT CROWN IS EXPOSED. AVOID A "MULCH VOLCANO". 3. AVOID OVER-PRUNING OF TREE BY ONLY REMOVING A SMALL PERCENTAGE OF THE LIVE TREE AT ONE TIME TO A MAX OF 25% IN ONE YEAR. 4. HEAVY PRUNING SHOULD BE PERFORMED IN THE WINTER MONTHS. 5. AVOID LIGHT PRUNING IN EARLY SPRING.
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CITY OF KIRKWOOD	ATTACH THIS SHEET TO HOUSE PLAN SUBMITTAL	TREE INCENTIVE SPECIFICATIONS PAGE 1 OF 1
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