

TMC 18.52: Landscaping

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18.52.010 Purpose:

The purpose of this chapter is to establish minimum requirements for landscaping to:

- promote safety;
- provide screening between incompatible land uses;
- mitigate the adverse effects of development on the environment;
- improve the visual environment for both residents and nonresidents;
- implement the Urban Forestry Comprehensive Plan goals by increasing tree canopy throughout the city to improve air quality, promote the health of residents, visitors and employees, and reduce heat islands and storm water flows;
- support the low impact development goals of the Comprehensive Plan and the City's National Pollution Discharge Elimination System permit;
- regulate the protection of existing landscaping;
- establish requirements for the long-term maintenance of required landscaping and
- establish procedures for modifying landscaping requirements and penalties for violations of the landscaping code

18.52.020 Perimeter and Parking Landscaping Requirements by Zone District

- A. In the various zone districts of the City, landscaping in the front, rear and side yards and parking lots shall be provided as established by the various zone district chapters of this title. These requirements are summarized in the following table, except for Tukwila Urban Center (TUC) requirements, which are listed in TMC Chapter 18.28.

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Landscape Requirements by Zoning District (in feet: LF=linear feet; SF=square feet)							
ZONING DISTRICTS	FRONT YARD (SECOND FRONT) LF	LANDSCAPE TYPE FOR FRONTS	LANDSCAPE FOR SIDE YARD LF	LANDSCAPE FOR REAR YARD LF	LANDSCAPE TYPE FOR SIDE/REAR [CL1]	CURRENT LANDSCAPING REQUIRED FOR PKG LOTS [CL2] SF	PROPOSED LANDSCAPING FOR PARKING LOTS SF
LDR (for uses other than residential)	15 ²	Type I	10lf	10lf	Type I	- None for up to 20 stalls; - 7 SF/stall for 21-40 stalls; - 12 SF/stall >40 stalls - <u>Plus perimeter landscape strip minimum of 2 LF with average of 5 LF width</u>	20sf per stall for non-residential uses; 15SF per stall if pkg is placed behind bldg..
MDR	15 ^{1,2,11}	Type I	10	10	Type I	Same as LDR	Same as LDR
HDR	15 ^{1,2,11}	Type I	10	10	Type I	Same as LDR	Same as LDR
MUO	15(12.5) ²	Type I ⁷	6 5 ⁴ [CL3]	6 5 ^{4,11}	Type I ⁷	- None for up to 20 stalls; - 10 SF/stall for 21-40 stalls; - Minimum of 200 SF of interior landscaping plus 15 SF/stall >40 stalls. - For areas placed behind buildings or otherwise screened from streets, parks and City trails, the interior landscape requirement is reduced to a minimum of 200 SF plus 10 SF for each pkg. stall over 40.	20sf per stall adjacent to street; 15 SF per stall if pkg is placed behind building
O	15(12.5) ²	Type I ⁷	6 5 ⁴	6 5 ⁴	Type I ⁷	Same as MUO	Same as MUO
RCC	20(10) ^{2,3}	Type I ⁷	6 5 ⁴	10 ¹¹	Type II	Same as MUO	Same as MUO

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NCC	10 ^{5,4}	Type I ^{7,13}	0 ⁴	0 ^{4,11}	Type II	Same as MUO	Same as MUO
RC	10	Type I ¹³	6 ^{5,4}	0 ⁴	Type II ⁸	- For areas adjacent to public or private streets, a minimum of 15 SF/stall; - For areas placed behind bldgs. or otherwise screened from streets, parks and City trails, minimum 10 SF of interior landscape required/stall	Same as MUO
RCM	10	Type I	6 ^{5,4}	0 ⁴	Type II ⁸	Same as RC	Same as MUO
C/LI	15 ^{12,5²}	Type II ⁶	6 ^{5,12}	0 ^{5,12}	Type II ⁸	Same as RC	15sf per stall 10SF per stall for pkg placed behind bldg..
LI	15 ^{12,5²[CL4]}	Type II	0 ^{4,12}	0 ^{4,12}	Type III	None	15sf per stall 10SF per stall for pkg placed behind bldg.
HI	15 ^{12,5²[CL5]}	Type II	0 ^{4,12}	0 ^{4,12}	Type III	None	15sf per stall
MIC/L	10 ^{5,5}	Type II	0 ^{5,12}	0 ^{5,12}	Type III	None	10sf per stall
MIC/H	10 ^{5,5}	Type II	0 ^{5,12}	0 ^{5,12}	Type III	None	10sf per stall
TUC	See TMC Chapter 18.28						Same
TVS ^[CL6]	15 ^{2,3}	Type II	0 ⁴	0 ⁴	Type III	Same as RC	No change
TSO	15 ^{9,2}	Type I	0 ¹⁰	0 ¹⁰	Type III	Same as RC	No change

Table 18-XX

Notes^[CL7]:

1. Minimum required front yard landscaped areas in the MDR and HDR zones may have up to 20% of their required landscape area developed for pedestrian and transit facilities subject to the approval criteria in TMC 18.52.070 A.2.a.
2. In order to provide flexibility of the site design while still providing the full amount of landscaping required by code, the front yard landscape width may be divided into a perimeter strip and one or more other landscape areas between the building and the front property line, if the perimeter strip is a minimum of 10 feet and the landscape materials are sufficient to provide landscaping along the perimeter and screening of the building mass.
3. Required landscaping may include a mix of plant materials, pedestrian amenities and features, outdoor café-type seating and similar features subject to the approval criteria in TMC 18.52.060 A.2.a. Bioretention may also be used as required landscaping subject to the approval criteria in TMC 18.52.100. Required plant materials will be reduced in proportion to the amount of perimeter area devoted to pedestrian oriented space.
4. Increased to 10 feet if any portion of the yard is within 50 feet of LDR, MDR or HDR.
5. Increased to 15 feet if any portion of the yard is within 50 feet of LDR, MDR or HDR.
6. Increased to Type II if the front yard contains truck loading bays, service areas or outdoor storage.
7. Increased to Type II if any portion of the yard is within 50 feet of LDR, MDR or HDR.
8. Increased to Type III if any portion of the yard is within 50 feet of LDR, MDR or HDR.
9. Only required along public streets.
10. Increased to 10 feet if adjacent to residential uses or non-TSO zoning.
11. In the MDR and HDR districts and other districts where multifamily development is permitted, a community garden may be substituted for some or all of the landscaping. In order to qualify, a partnership with a nonprofit (501 C.3.) with community garden expertise is required to provide training, tools and assistance to apartment residents. Partnership with the nonprofit with gardening expertise is required throughout the life of the garden. If the community garden is abandoned, the required landscaping must be installed. If garden is located in the front landscaping, five (5) feet of landscaping must be placed between the garden and the street.
12. To accommodate the types of uses found in the C/LI, LI, HI and MIC districts, landscaping may be clustered to permit truck movements or to accommodate other uses commonly found in these districts if the criteria in TMC 18.52.070 A.2.c. are met.
13. For NCC and RC zoned parcels in the Tukwila International Boulevard District, the front^[CL8] landscaping may be reduced or eliminated if buildings are brought out to the street edge to form

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a continuous building wall and a primary entrance from the front sidewalk as well as from off-street parking areas is provided. Where buildings are required to located at the back of sidewalk, the primary entrance on or adjacent to the front sidewalk shall be provided.

18.52.030 Landscaping Types^[CL9]

A. Standards for Landscaping Types^[CL10]

1. Trees
 - a. Trees shall be spaced based on the stature tree selected (small, medium or large stature of tree), excluding curb cuts and spaced regularly, except where there are conflicts with utilities.
 - b. Large and medium stature tree species are required, per the Tukwila approved Tree list, except where there is insufficient planting area (due to proximity to a building, street light, above or below ground utility etc^[CL11].) or the planned tree location does not permit this size tree at maturity. Large^[CL12] canopy trees are preferred unless it can be shown that site conditions do not permit this size tree at maturity.
2. Shrubs: Shrubs shall be spaced based on the mature size of the plant material selected and shall achieve a continuous vertical layer within three (3) years.
3. Groundcover:
 - a. Sufficient live groundcovers of varying heights, colors and textures to cover, within three (3) years, 100% of the yard area not needed for trees and shrubs.
 - b. If grass is being used as the groundcover, a four (4) foot^[CL13] diameter ring of bark mulch is required around each tree.
4. Bioretention may be used as a Type I or II landscape perimeter, provided the intent of the screen is achieved. To support bioretention facility function and plant survival, flexibility in plant materials and placement shall be allowed, provided public safety is not compromised.
5. The amount of landscaping on commercially zoned properties may be reduced by 15% if buildings are moved to the front of the site **with no parking between the building and the front landscaping** to create a more pedestrian friendly site **design^[CL14].**

B. Type I - Light Perimeter Screening^[CL15]

1. The purpose of Type I landscaping is to enhance Tukwila's streetscapes, provide a light visual separation between uses and zoning districts, screen parking areas, and allow views to building entryways and signage.
2. Plant materials shall consist of the following:
 - a. Trees: a mix of deciduous and evergreen trees.
 - b. One shrub per 7 linear feet.
 - c. Groundcover.

C. Type II - Moderate Perimeter Screening.

1. The purpose of Type II landscaping is to enhance Tukwila's streetscapes, provide a moderate visual separation between uses and zoning districts, screen blank building walls and parking areas, and allow views to building entryways and signage^[CL16].
2. Plant materials shall consist of the following:
 - a. Trees: a mix of deciduous and evergreen trees.
 - b. 1 shrub per 4 linear feet, excluding curb cuts.
 - c. Groundcover.

D. Type III - Heavy Perimeter Screening.

1. The purpose of Type III landscaping is to provide extensive visual separation along property lines between highly incompatible development, such as warehousing and residential uses.
2. Plant materials shall consist of the following:
 - a. Trees consisting of at least 50% evergreen along the applicable property line (75% along property line adjacent to residential uses).
 - b. Privacy screening utilizing evergreen shrubs, screening walls or fences (up to 7 feet tall) is allowed.
 - c. Groundcover.

E. Parking Lot Landscaping: This landscaping is required to mitigate adverse impacts created by parking lots which include noise, glare, storm water run-off, and increased heat and to improve their physical appearance.

1. Trees shall be evenly distributed throughout the parking lot and planted in continuous, landscaped planting strips between rows of parking is encouraged. Surface water management design may also be combined with landscaping in parking lots^[CL17]. However, in industrial districts, (C/LI, LI, HI, MIC/L, MIC/H) clustering of interior parking lot landscaping may be permitted to accommodate site usage^[CL18].
2. For parking lots adjacent to public or private streets, if landscape islands are designed into the parking lot layout to divide continuous rows of parking stalls, they must be placed at minimum spacing of every 10 parking spaces. For parking areas located behind buildings or otherwise screened from public or private streets or public spaces, if landscape islands are used, they shall be placed at a minimum of one island every 15 parking stalls^[CL19].
3. Landscape islands^[CL20]:
 - a. Landscape islands must be a minimum of 6 feet wide, exclusive of overhang, and a minimum of 100 square feet in area. All landscaped areas must be protected from damage by vehicles (curbs, tire stops, or other techniques^[CL21]);

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- b. Landscape islands shall be placed at the ends of each row of parking to protect parked vehicles from turning movements of other vehicles^[CL22]; and
 - c. The number and stature of trees shall be based on the area available in the landscape island. A minimum of one large stature evergreen or deciduous tree or two medium stature trees are required for every 100 square feet of landscaped island, with the remaining area to contain a combination of shrubs, living groundcover, and mulch^[CL23].
4. Bioretention, which includes trees, shrubs, and groundcover, may be used to meet interior parking lot landscaping requirements. The bioretention facility must be designed by a professional trained or certified in Low Impact Development techniques^[CL24] as set forth in TMC 14.30. All bioretention facilities must be protected by curbing to prevent vehicle damage to the facility and for public safety.
 5. Vehicular Overhang.
 - a. Vehicle overhang into any landscaping area shall not exceed two feet^[CL25].
 - b. No plant material greater than 12 inches in height shall be located within two feet of the curb or other protective barrier in landscape areas adjacent to parking spaces and vehicle use areas.
 - c. Raised curbs or curb stops shall be used around the landscape islands or bioretention facilities to prevent plant material from being struck by automobiles. Where bioretention is used, curb cuts shall be placed to allow stormwater runoff from adjacent pavements to enter the bioretention system^[CL26].
 6. Pervious pavement shall be used, where feasible, including parking spaces and pedestrian paths.
 7. Parking lot landscape design shall accommodate pedestrian circulation^[CL27].

F. Street Trees in the Public Frontage.

1. Street tree spacing
 - a. Street tree spacing in the public frontage shall be as specified in Section 18.52.060 B.2. based on the stature size of the tree^[CL28].
 - b. Spacing must also consider sight vision distance at intersections, driveway locations, and utility conflicts as specified in Section 18.52.060 B.2^[CL29].
 - c. Street trees in the public frontage shall be planted using the general guidance of the following spacing standards^[CL30]:
 - i. At least 3.5 feet back from the face of the curb
 - ii. At least 5 feet from underground utility lines.
 - iii. At least 10 feet from power poles.
 - iv. At least 7.5 feet from driveways.
 - v. At least 3 feet from pad-mounted transformers (except 10 feet in front for access).

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- vi. At least 4 feet from fire hydrants and connections.
 - d. Planting and lighting plans shall be coordinated so that trees are not planted in locations where they will obstruct existing or planned street or site lighting, while maintaining appropriate spacing and allowing for their size and spread at maturity.
 - e. Planting plans shall consider the location of existing or planned signage to avoid future conflicts from mature trees and landscaping^[CL31].
2. Tree grates
- a. Tree grates are not encouraged, but when used, shall be designed^[CL32] so that sections of grate can be removed incrementally as the tree matures and shall be designed to avoid accumulation of trash.
 - b. When used, tree grates and landscaped tree wells shall be a minimum 36 square feet in size (6' x 6'). Tree well size may be adjusted to comply with ADA standards on narrower sidewalks. See TMC Section 18.52.070 A. 1., "Soil Preparation and Planting," for structural soil requirements. Root barriers may be installed at the curb face if structural soils are not used.
3. Maintenance and Pruning.
- a. Street trees are subject to the most current planting, maintenance, and removal standards and BMPs, as established by the International Society of Arboriculture. Street trees planted prior to the adoption of the most current tree planting standards shall be exempt from these planting standards but are still subject to current removal and maintenance standards^[CL33].
 - b. Street Tree Maintenance: Landscaping in the right of way shall be maintained by the abutting property owner(s) unless maintenance has been accepted by the City. See TMC 11.20.150^[CL34].
 - I. Street trees shall be maintained consistent with International Society of Arboriculture best management practices.
 - II. Street trees shall be maintained in a manner that does not impede public street or sidewalk traffic, consistent with the specifications in the Public Works Infrastructure Design Manual, including:
 - III. 8 feet of clearance above public sidewalks;
 - IV. 13 feet of clearance above public local and neighborhood streets;
 - V. 15 feet of clearance above public collector streets; and
 - VI. 18 feet of clearance above public arterial streets.
 - VII. Street trees shall be maintained so as not to become a defective tree as defined in TMC 18.06.XXX^[CL35].
4. Trees planted in a median shall be appropriate for the planting environment, to achieve a balance of the following^[CL36]:
- a. Consistency with previously approved median tree plans given space constraints for roots and branches at maturity.
 - b. Providing adequate species diversity citywide and reasonable resistance to pests and diseases.
 - c. Columnar trees may be considered for median plantings to avoid conflicts with vehicles and utilities.

- d. Structural soils shall be used to avoid the need for root barriers and to ensure the success of the median plantings.
- e. Any median tree that is removed must be replaced within the same median unless spacing constraints exist. Replacement trees shall be of the same stature or greater at maturity as the removed tree, [consistent with other space requirements](#)^[CL37].

18.52.040 Screening and Visibility

A. Screening

1. **Screening of outdoor storage, mechanical equipment and garbage storage areas**^[AC38] **and fences.**
 - a. Outdoor storage shall be screened from abutting public and private streets and from adjacent properties. Such screens shall be a minimum of eight feet high and not less than 60% of the height of the material stored. The screens shall be specified on the plot plan and approved by the Community Development Director. In the MDR and HDR zones, outdoor storage shall be fully screened from all public roadways and adjacent parcels with a high obscuring structure equal in height to the stored objects and with a solid screen of exterior landscaping.
 - b. Ground level mechanical equipment and garbage storage areas shall be screened with evergreen plant materials and/or fences or masonry [walls](#)^[CL39].
 - c. Fences. All fences shall be placed on the interior side of any required perimeter [landscaping](#)^[CL40].
2. A mix of evergreen trees and evergreen shrubs shall be used to screen blank [walls](#)^[CL41].
3. Evergreen shrubs and trees shall be used for screening along rear property lines, around solid waste/recycling areas, utility cabinets and mechanical equipment, and to obscure grillwork and fencing associated with subsurface parking garages. Evergreen shrubs and trees shall be pruned so that 18-inches visibility at the base is [maintained](#)^[CL42].

B. [Visibility](#)^[CL43]

1. Design of new landscaping and maintenance of existing landscaping shall consider Crime Prevention Through Environmental Design (CPTED) principals and visibility for safety and views. Appropriate plant species shall be specified to avoid the need for excessive maintenance pruning.
2. Landscaping shall not obstruct views from or into building windows, the driveway, sidewalk or street. Landscape design shall allow for surveillance from streets and buildings and avoid creating areas that might harbor criminal activity.
3. Landscaping at crosswalks and other locations where vehicles and pedestrians intersect must not block pedestrians' and drivers' views.

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4. In general, deciduous trees with open branching structures are recommended to ensure visibility to retail establishments. More substantial shade trees or conifers are recommended in front of private residences.

18.52.50 Significant Tree Retention

- A. All significant trees located within any required landscape area that are not **dead**^[CL44], dying, diseased, or a nuisance species, as identified in the Tukwila Approved Tree List, and that do not pose a safety hazard, **or conflict with overhead utility lines**^[CL45] as determined by the City or an ISA certified arborist, shall be retained and protected during construction with temporary fencing or other enclosure, as appropriate to the site and following Tree Protection Best Management Practices (See TMC 18.54^[AC46].)
- B. Retained significant trees may be counted towards required **landscaping**^[CL47]. For each two percent of effective canopy cover provided by preserved trees that is incorporated into a development plan, a two percent reduction in the minimum landscape requirement may be granted. No more than 20% of the minimum landscape requirement may be reduced for any one development. Approval is required per TMC 18.52.100.
- C. The area designated for protection will vary based on the tree's diameter, **species**^[CL48], age, and the characteristics of the planted area and utilize Best Management Practices for Protection (See TMC 18.54). Property owners may be required to furnish a report by an ISA certified arborist to document a tree's condition if tree to be retained. The Director may require that an ISA certified arborist be retained to supervise tree protection during construction. Grade changes around existing trees within the critical root zone are not **allowed**^[CL49].

18.52.060 Plant Material Requirements and Tree Standards

A. Plant Material Requirements

1. Plants shall meet the current American Standard for Nursery Plant Stock (American Nursery and Landscape Associations-ANLA) (ANSI Z60.1) and shall be healthy, vigorous and well-formed, with well-developed, fibrous root systems, free from dead branches or roots. Plants shall be free from damage caused by temperature extremes, pre-planting or on-site storage, lack of or excess moisture, insects, disease, and mechanical injury. Plants in leaf shall be well foliated and of good color. Plants shall be habituated to outdoor environmental conditions (i.e. hardened-off^[CL50]).
2. Evergreen trees shall be a minimum of 6 feet in height at time of **planting**^[CL51].
3. Deciduous trees shall have at least a 2 inch caliper at time of planting as measured 4.5 ft. from the ground, determined according to the current edition of the American Standard for Nursery Stock.

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4. Shrubs shall be at least 18 inches in height, and full and bushy at time of planting^[AC52].
5. New plant materials shall include native species or non-native species with lower water requirements^[AC53] and that are adapted to the climatic conditions of the Puget Sound Region. There must be a diversity of tree and shrub genus and species in the site landscaping, taking into account, species in existing development around the site.
 - a. If there are more than 8 required trees, no more than 40 percent may be of one species^[CL54].
 - b. If there are more than 24 required trees, no more than 20 percent may be of one species.
 - c. If there are more than 25 required shrubs, no more than 50 percent may be of one species.
6. Any species that is listed on the State or King County noxious weed lists or otherwise known to be a nuisance or invasive shall not be planted^[CL55].
7. Plant materials shall be selected that reinforce the landscape design concept, and are appropriate^[CL56] to their location in terms of hardiness, cultural requirements, tolerance to urban conditions, maintenance needs and growth characteristics.
8. Large and medium stature tree species are required, per Tukwila Approved Tree list except where there is insufficient planting area (due to proximity to a building, street light, above ground or underground utility line, etc^[CL57]).
9. The classification of plant material as trees, shrubs and evergreens shall be as listed in the Hortus Third, A Concise Dictionary of Plants Cultivated in the U.S. and Canada, or as updated^[CL58].
10. Plant material requirements for bioretention facilities shall be in accordance with the City's bioretention plant list^[CL59].
11. Non-developed site areas, such as utility easements, shall be landscaped and/or treated with^[CL60] dust and erosion control planting or surfacing such as evergreens, groundcover, shrubs, trees, sod or a combination of similar materials. In areas of overhead utility transmission lines, no shrubs or trees shall be allowed that could mature over 20 feet feet in height at maturity will be allowed^[CL61]. Trees should not be planted within 10 feet of underground power, water, sewer or storm drainage pipes.

B. Tree Standards

1. Tree Species: shall be appropriate for the planting environment as determined by the Department Director in consultation with the City environmentalist and seek to achieve a balance of the following^[CL62]:
 - a. Consistency with approved Tree List or Bioretention Landscaping List.
 - b. Compatibility with space constraints for roots and branches at maturity.

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- c. Providing adequate species diversity citywide and reasonable resistance to pests and diseases.
2. Tree Spacing: trees shall be provided adequate spacing from new and existing trees according to the following standards wherever possible^[CL63]:
 - a. Trees categorized as small stature on the tree list shall be spaced no greater than 20 feet on center and not closer than 15 feet on center from other newly planted or existing trees
 - b. Trees categorized as medium stature on the tree list shall be spaced no greater than 30 feet on center and not closer than 20 on center from other newly planted or any existing trees.
 - c. Trees categorized as large stature on the tree list shall be spaced no greater than 40 feet on center and not closer than 30 feet on center from other newly planted or existing trees.
 - d. Any tree determined to have a mature spread of less than 20 feet (a columnar or fastigate variety) is discouraged except under specific conditions and shall be considered a small stature tree and spaced accordingly.
3. Trees shall be placed according to the following standards^[CL64]:
 - a. Small stature trees shall be planted with the center of their trunks a minimum of two feet from any hard surface paving.
 - b. Medium stature trees shall be planted with the center of their trunks a minimum of 2.5 feet from any hard surface paving;
 - c. Large stature trees shall be planted with the center of their trunks a minimum of 3 feet from any hard surface paving;
 - d. Trees shall generally be planted a minimum of:
 - i. 4 feet on center from any fire hydrant, above-ground utility or utility pole;
 - ii. 2 feet on center from any underground utility;
 - iii. 5 feet on center from a street light standard;
 - iv. 20 feet from a street right of way corner; however, a greater or lesser corner setback may be required based on an analysis of traffic and pedestrian safety impacts.
 - v. 5 – 10 feet from building foundations depending on species.
4. Where there are overhead utility lines, the tree species selected shall be of a type which, at full maturity, will not interfere with the lines or require pruning to maintain necessary clearances^[AC65] height^[CL66];
5. Root barriers may be installed according to the manufacture's specifications when a tree is planted within 5 feet of any hard surface paving or utility feature and in areas where Structural Soil is not required, subject to approval by the Department Director in consultation with the City's environmentalist^[CL67].
6. Low water usage^[CL68] species are encouraged in order to minimize future irrigation requirements, except where site conditions within the required landscape areas ensure adequate moisture for growth^[CL69].

7. Shade trees should be planted to shade buildings' east and west-facing windows to provide a balance between summer cooling and winter heating through solar gain^[CL70].

18.52.70 Soil Preparation, Planting and Irrigation

A. Soil Preparation and Planting

1. For landscaping planted in sidewalks and parking lots, or in limited areas of soil^[CL71] volume, structural soils (Cornell University product or similar) must be used to a preferred depth of 36 inches, to promote tree root growth and provide structural support to the paved area. Minimum soil volumes for tree roots shall be 750 cubic feet per tree (see specifications and sample plans for CU-Structural Soils). Trees and other landscape materials shall be planted per specifications in "CU Structural Soils – A Comprehensive Guide" or using current BMPs as approved by the Director. Suspended pavement systems (Silva Cells or similar) may also be used if approved by the Director^[CL72].
2. For soil preparation in bioretention areas, existing soils must be protected from compaction. Bioretention soil media must be prepared in accordance with standard specifications of the Surface Water Design Manual, adopted in accordance with TMC Chapter 14.30, to promote a proper functioning bioretention system. These specifications shall be adhered to regardless of whether a stormwater permit is required from the City^[AC73].
3. For all other plantings, (such as large planting areas where soil volumes are adequate for healthy root growth) soils must be prepared for planting in accordance with BMP T5.13, "Post Construction Soil Quality and Depth," from the Washington Department of Ecology Stormwater Management Manual for Western Washington (or as amended), regardless of whether a stormwater permit is required by the City^[CL74].
4. The applicant will be required to schedule an inspection by the City of the planting areas prior to planting to ensure soils are properly prepared. Soil must be amended, tilled and prepped to a depth of at least 12 inches^[CL75].
5. Installation of landscape plants must comply with best management practices including^[CL76]:
 - a. Planting holes that are the same depth as the size of the root ball and 2 - 3 times wider than the root ball.
 - b. Root balls of potted and balled and burlapped (B&B) plants must be loosened and pruned as necessary to ensure there are no encircling roots prior to planting. All burlap and all straps or wire baskets must be removed from B&B plants prior to planting.
 - c. The top of the root flare, where the roots and the trunk begin, should be placed at grade. The root ball shall not extend above the soil surface or the flare be placed below grade.

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- d. If using mulch around trees and shrubs, maintain at least a 6-inch mulch-free ring around the base of the tree trunks and woody stems of shrubs. If using mulch around groundcovers until they become established, mulch shall not be placed over the crowns of perennial plants.

B. Irrigation[CL77].

1. The intent of this standard is to ensure that plants will survive the critical establishment period when they are most vulnerable due to lack of watering and to ensure their long term viability.
2. All required plantings must be served by a permanent automatic irrigation system, unless approved by the Director.
 - a. Irrigation shall be designed to conserve water by using the best practical management techniques available. These techniques may include, but not be limited to: drip irrigation (where appropriate) to minimize evaporation loss, moisture sensors to prevent irrigation during rainy periods, automatic controllers to insure proper duration of watering, sprinkler head selection and spacing designed to minimize overspray, and separate zones for turf and other landscaping and for full sun exposure and shady areas to meet watering needs of different sections of the landscape.
 - b. Exceptions to the irrigation requirement may be approved by the Director, such as xeriscaping (i.e., low water usage plantings), plantings approved for low impact development techniques, established indigenous plant material, or landscapes where natural appearance is acceptable or desirable to the City. However, those exceptions will require temporary irrigation until established.
3. All temporary irrigation must be removed at the end of the three-year plant establishment period[CL78].

18.52.080 Maintenance and Pruning.

- A. Any landscaping required by this chapter shall be retained and maintained by the property owner for the life of the project in conformance with the intent of the approved landscape plan and this chapter. Maintenance shall include keeping all planting areas free of weeds and trash and replacing any unhealthy or dead plant materials[CL79].
- B. Green roofs or rooftop gardens shall be maintained to industry standards and any dead or dying plant material replaced[CL80].
- C. Pruning of trees and shrubs[CL81] is only allowed for the health of the plant material, to maintain sight distances or sight lines into commercial areas, or if interfering with overhead utilities. All pruning must be done in accordance with American National Standards Institute (ANSI) A-300 specifications[CL82].
- D. No tree planted by a property owner or the City to fulfill landscape requirements[CL83], or any existing tree, may be topped or removed without prior approval from the City. Any

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tree topped or removed without approval shall be subject to code enforcement action per TMC Chapter 8.45 in addition to the requirements of TMC 18.52.100 B, Violations.

- E. Private property owners shall collect all on-site landscaping debris and dispose^[CL84] of this material properly. Private property landscaping debris shall not be placed or blown into the public right of way for City collection. Violations will be subject to code enforcement action per TMC Chapter 8.45.
- F. Trees along the street frontages, as they mature, shall be limbed up, using proper^[CL85] ISA pruning techniques, to a minimum height of 8-18 feet^[CL86] depending on location of tree (over sidewalk, adjacent to road etc.) to allow adequate visibility and clearance for vehicles. Trees may be pruned to improve views of signage and entryways by using such techniques as windowing, thinning, and limbing up. However, no more than 1/4 of the canopy may be removed within any 2-year period. All pruning shall be done in accordance with ANSI Standard A-300 specifications, as revised.
- G. Trees may only be pruned to lower their height to prevent interference with an overhead utility or electrical line with prior approval by the Director. The pruning must be carried out under the direction of by a certified arborist^[AC87]. The crown shall be maintained to at least 2/3 the height of the tree prior to pruning. Otherwise, trees shall not be topped.

18.52.090 Landscape Plan Requirements

- A. Landscape plan design shall take into consideration the mature size of proposed landscape materials to minimize the future need for pruning i.e. placement such that mature trees and shrubs will not cause problems for foundations, obscure signage, grow too close to overhead or underground utility lines^[AC88], obstruct views of traffic etc^[CL89].
- B. A Washington State licensed landscape architect or other accredited landscape design professional^[CL90] shall prepare the landscape plans in accordance with the standards herein. Detailed plans for landscaping and screening shall be submitted with plans for building and site improvements. Included in the plans shall be type, quantity, spacing and location of plants and materials; typical planting details; soil amendment/installation; tree protection details as applicable; and the location of irrigation systems and significant trees within 20 feet of the property line on adjacent properties. Underground and at-ground utilities shall be shown on the plans so that planting conflicts are avoided. A detailed list of items to be included on the landscape plan is available in the Landscape Plan handout, available on-line or at the DCD offices.
- C. Installation of the landscaping and screening shall be completed and a Landscaping Declaration^[CL91] submitted by the owner or owner's agent prior to issuance of the Certificate of Occupancy. Any plant substitutions shall be noted on the Declaration. If necessary, due to weather conditions or construction scheduling, the installation may be postponed to the next planting season (October – April) if approved by the Director and

stated on the building permit. A performance assurance device equal to 150% of the cost of the labor and materials must be provided to the City before the deferral is approved.

18.52.100 Procedures

A. Landscape Modifications[CL92]

1. The following modifications to the requirements of this chapter may be considered either as a Type 2, Director decision, or through design review if the project is subject to that process.
 - a. Modifications to the requirements of Type I, II, or III landscaping or revisions to existing landscaping;
 - b. Clustering and/or averaging of required landscaping. The landscape perimeter may be clustered if the total required square footage is achieved, unless the landscaping requirement has been increased due to proximity to LDR, MDR or HDR[CL93]. In addition, up to 50% of the perimeter landscaping may be relocated to the interior parking to provide more flexibility for site organization.
 - c. Substitution of bioretention facility for required landscaping for Type I or II landscaping. Landscaping in a bioretention facility which includes trees, shrubs and groundcover may be counted up to 100% towards required landscaping depending on the location, type of bioretention facility proposed[CL94] and proposed use.
 - d. Credit for retained significant trees towards landscaping requirement.
2. The following criteria apply to requests to modify required landscaping or revise existing landscaping:
 - a. Modifications to required landscaping. Such modifications can include, but are not limited to the use of the landscape area for pedestrian and transit facilities, landscape planters, rooftop gardens or green roofs, terraced planters or green walls. The modification to landscaping requirements may be approved if one or more of criteria i-iii are met.
 - i. The modification or revision more effectively screens parking areas and blank building walls; or
 - ii. The modification or revision enables significant trees or existing built features to be retained; or
 - iii. The modification or revision is used to reduce the number of driveways and curb cuts and allow joint use of parking facilities between neighboring businesses.

In addition, both criteria below must be met:

- iv. The modification or revision does not reduce the landscaping to the point that activities on the site become a nuisance to neighbors; and

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- v. The modification or revision does not diminish the quality of the site landscape as a whole.
- C. Revisions to existing landscaping may be approved if either i or ii are met and both iii and iv below are met:
- i. Proposed vegetation removal, replacement, and any mitigation measures proposed are consistent with the purpose and intent given in this chapter; or
 - ii. The granting of an exception or standard reduction will not be detrimental to the public health, safety or welfare or injurious to other property in the vicinity; and
 - iii. The modification or revision does not reduce the landscaping to the point that activities on the site become a nuisance to neighbors.; and
 - iv. The modification or revision does not diminish the quality of the site landscape as a whole.

In addition, if trees are removed due to conflicts with utilities, these trees shall be replaced based on the tree replacement table found in TMC 18.52.100^[CL95].

- D. Clustering or perimeter averaging of landscaping may be considered if:
- i. it does not diminish the quality of the site landscape as a whole and,
 - ii. it does not create a nuisance to adjacent properties; and
 - iii. if adjacent to residential development, the impacts from clustering must be minimized.

In addition, one or more of the following criteria must be met:

- iv. Clustering or perimeter averaging of plant material allows more effective use of the industrial property; or
 - v. Clustering or perimeter averaging of landscaping enables significant trees to be retained; or
 - vi. Clustering or perimeter averaging is used to reduce the number of driveways and curb cuts and allow joint use of parking facilities between neighboring businesses;
 - vii. Clustering or perimeter averaging avoids future conflicts with signage.
- E. Landscaping in a bioretention facility, which includes trees, shrubs, and groundcovers as identified on the City's approved Bioretention Vegetation list and as regulated in TMC 14.30, may be counted up to 100% towards required Type I or Type II landscaping. Bioretention facilities shall not be counted towards required Type III landscaping. All of the following criteria must be met:
- i. The bioretention facility has been designed by a professional trained or certified in Low Impact Development techniques; and
 - ii. The landscaping meets the screening requirements of the specified landscape type;
 - iii. Public safety concerns have been addressed; and
 - iv. The number of trees required by the landscape type are provided.

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- F. Credit for retained significant trees may be counted towards required landscaping if the following criteria are met:
- i. Assessment of trees by an ISA Certified Arborist as to tree health, value of the trees and the likelihood of survivability during and after construction is provided.
 - ii. Retention of tree(s) supports the Tukwila Comprehensive Plan urban tree canopy goals and policies;
 - iii. A financial assurance is posted based on 50% of the value of the retained tree(s) to ensure tree replacement should the retained trees be damaged or die as a result of construction impacts. The financial assurance shall be retained for three years.

The value of the significant tree(s) to be retained, as determined by an ISA Certified Arborist, shall be posted on the tree prior to site preparation and retained throughout the construction of the project^[CL96].

B. Violations^[CL97]

1. **Violations.** The following actions shall be considered a violation of this chapter:
 - a. Any removal or damage of landscaping that is required by this Chapter;
 - b. Topping or excessive pruning of trees or shrub, except as allowed by the Director^[CL98].
 - c. **Failure to replace dead landscaping materials**^[CL99].
2. **Penalties:** In addition to any other penalties or other enforcement actions, any^[CL100] person who fails to comply with the provisions of this chapter also shall be subject to a civil penalty as set forth below. Each unlawfully removed or damaged tree shall constitute a separate violation.
 - a. The amount of the penalty shall be assessed based on the table below. The director may elect not to seek penalties or may reduce the penalties if he or she determines that the circumstances do not warrant imposition of any or all of the civil penalties.
 - b. Penalties are in addition to the restoration of removed plant materials through the remedial measures listed below.
 - c. It shall not be a defense to the prosecution for a failure to obtain a permit required by this chapter that a contractor, subcontractor, person with responsibility on the site or person authorizing or directing the work erroneously believe a permit had been issued to the property owner or any other person.

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Type of Violation	Allowable Fines per Violation ^[CL101]
Removal or damage ^[CL102] of trees or specimen shrubs without applying for and obtaining required city approval	\$1,000 per tree, or up to the marketable value of each tree removed or damaged as determined by a certified arborist.

3. **Remedial Measures:** In addition to the penalties provided above, the Director shall require any person conducting work in violation of this chapter to mitigate the impacts of unauthorized work by carrying out remedial measures.
- a. Any illegal removal of required trees shall be subject to obtaining a tree permit and replacement with trees that meet or exceed the functional value of the removed trees. In addition, any shrubs and groundcover removed without city approval shall be replaced; and
 - b. To replace the tree canopy lost due to the tree removal, additional trees must be planted on-site. Payment may be made into the City’s Tree Fund if the number of replacement trees cannot be accommodated on-site. The number of replacement trees required will be based on the size of the tree(s) removed as follows^[CL103]:

Tree Replacement Requirements

Diameter* of Tree Removed (*measured at height of 4.5 feet from the ground)	Number of Replacement Trees Required ^[CL104]
4-6 inches (single trunk) 2 inches (any trunk of a multi-trunk tree)	3
Over 6-8 inches	4
Over 8-20 inches	6
Over 20 inches	8

4. **Enforcement.** It shall be the duty of the Community Development Director to enforce this chapter pursuant to the terms and conditions of TMC 8.45^[CL105]^[CL106].

5. Inspection Access

- a. For the purposes of inspection for compliance with the provisions of a permit or this chapter, authorized representatives of the Community Development Director may enter all sites for which a permit has been issued.
- b. Upon completion of all requirements of a permit, the applicant shall request a final inspection by contacting the planner of record. The permit process is complete upon final approval by an authorized representative of the Community Development Director.