



Mississippi
Mills

2022

Guidelines for Tree Conservation & Planting



**Municipality of
Mississippi Mills**

Guidelines for Tree Conservation & Planting Municipality of Mississippi Mills

Private Land: Developers

The Municipality requires a Conservation and Tree Planting Plan from developers for residential, commercial and industrial lands. These plans are typically referred to as Landscape Plans.

The Plan should be assessed by a qualified professional (certified arborist, registered professional forester or other qualified professional) and will determine the grouping of trees and/or individual trees that should be protected during development of the area. The Plan should consider:

- The heritage value, if any, of a stand or individual trees – are there trees that should be protected due to rareness, history or other unique features?;
- The current and future health of the stand or individual trees;
- The degree of sensitivity of the stand or individual trees to grade changes, drainage disruption or other factors to be brought about by development;
- The steps to be taken to protect the stand or individual tree both above and below ground – the identified tree or trees should be fenced off at least to the drip line to protect roots from soil compaction; no grading is to take place around the protected tree or trees, and no equipment, supplies or trucks are to be inside the fenced area; and,
- If the stand and/or individual trees cannot be protected, the proposed steps to restore or enhance tree cover within the area should be outlined in the Tree Planting component of the Plan.

Corridor Development

Landscaping for corridor development must include the following:

- The objective of any corridor landscape plan is to provide shade trees along the corridor;
- There must a diversity of trees that includes at least four different types of trees, with the majority of the trees being shade trees and some being coniferous;
- The species and size of trees to be planted should be indicated in the Plan;
- To avoid monocultures, it is important to use a diversity of deciduous and coniferous species hardy to the Mississippi Mills area, i.e. zones 1 – 4 (4a and 4b);
- Deciduous trees should be 6 cm (2.3 inches) caliper size or larger; coniferous species should be at least 2.0 m (6.5 feet) in height;
- Every effort should be made to use species indigenous (native) to the area, although there may be situations where planting an indigenous species may not be possible used due to site constraints (municipal or utility infrastructure, sidewalks or curbing);

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- All species of ash (*Fraxinus*spp.) are to be avoided. Norway maple (*Acer platanoides*) and its cultivars, especially Crimson King, are popular but easily become naturalized and crowd out native species. These tree species should be avoided.

Subdivision Development

The landscape plan for the plan of subdivision must include the following:

- There must a diversity of trees that includes at least four different types of trees, of which a minimum of 75% of the trees are to be deciduous and a maximum of 25% are to be coniferous;
- a minimum of one (1) deciduous tree on the boulevard in front of each lot or semi-detached lot plus one (1) extra tree for each corner lot (i.e. corner lots are to have two trees);
- For lands that include multiple dwellings or lands that do not include a residential dwelling, the developer must plant one tree for every twelve (12) metres of lot frontage;
- Trees need not be planted on the basis of one tree for each lot, but may be grouped together;
- If a large number of trees have been removed over the area, an enhanced tree planting program might be necessary;
- The species and size of trees to be planted should be indicated in the Plan;
- To avoid monocultures, it is important to use a diversity of deciduous and coniferous species hardy to the Mississippi Mills area, i.e. zones 1 – 4 (4a and 4b);
- Deciduous trees should be 6 cm (2.3 inches) caliper size or larger; coniferous species should be at least 2.0 m (6.5 feet) in height;
- Every effort should be made to use species indigenous (native) to the area, although there may be situations where planting an indigenous species may not be possible used due to site constraints (municipal or utility infrastructure, sidewalks or curbing);
- All species of ash (*Fraxinus*spp.) are to be avoided. Norway maple (*Acer platanoides*) and its cultivars, especially Crimson King, are popular but easily become naturalized and crowd out native species. These tree species should be avoided.

Site Plan Development

The landscape plan for the plan of subdivision must include the following:

- There must a diversity of trees and shrubs that includes at least four different types of species, of which a minimum of 75% of the trees are to be deciduous and a maximum of 25% are to be coniferous;
- Industrial and commercial development should incorporate multiple trees;
- The species and size of trees to be planted should be indicated in the Plan;
- The ultimate height should be considered to avoid overhead wires;

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- To avoid monocultures, it is important to use a diversity of deciduous and coniferous species hardy to the Mississippi Mills area, i.e. zones 1 – 4 (4a and 4b);
- Deciduous trees should be 7 cm (2.3 inches) caliper size or larger; coniferous species should be at least 2.0 m (6.5 feet) in height;
- Every effort should be made to use species indigenous (native) to the area, although there may be situations where planting an indigenous species may not be possible used due to site constraints (municipal or utility infrastructure, sidewalks or curbing);
- All species of ash (*Fraxinus* spp.) are to be avoided. Norway maple (*Acer platanoides*) and its cultivars, especially Crimson King, are popular but easily become naturalized and crowd out native species. These species should be avoided.

Private Land: Homeowners

Planting trees and shrubs beautifies home properties, adds value to the property, reduces heating and cooling costs, and produces numerous environmental benefits. Homeowners should carefully select the location for their tree and plan to ensure that the tree can grow under optimal conditions without affecting other structures on the property (e.g. swimming pools, walkways). The ultimate height should be considered to avoid overhead wires. Underground utilities (hydro, gas, sewer and waterlines) must be identified and avoided. Tree roots can damage buried pipes and lines and add significant costs to line repairs if a break occurs. If in doubt, the homeowner must check with the Roads and Public Works Department *before* any digging is done (613-256-2064 x238). The species and size of tree to be planted is at the discretion of the homeowner. A wide variety of species is available from local nurseries and local organizations. The restriction on species under Private Land: Developers above should be referenced.

Public Land

The Municipality encourages individuals and groups to consider donating trees for planting on Municipal property. This does however require consultation and prior approval from the Roads and Public Works Department and/or the Parks and Recreation Department prior to any donation. No costs or permits are currently required, but individuals and groups should recognize there are establishment and maintenance costs to the Municipality. Assistance with watering and maintenance may also be necessary. Municipal staff will help with the location of planting sites, ensuring there is no conflict with underground or aerial utilities and that the location is well setback from roadways and sidewalks. Staff will also provide input on the choice of species to ensure they are not susceptible to disease, wind damage or other constraints.

Tree Planting Guidelines

Planting instructions are available at www.landscapeontario.com/planting. Trees and shrubs should be planted as soon as possible after purchase, especially if they are bare root (not in a

pot or burlap bag). If a delay is unavoidable, it is important to guard against moisture loss. Plants should be stored in a shady, wind protected area and the root mass kept moist.

The planting hole should be 10 – 15 cm (4 – 6 inches) wider than the root mass on all sides. The depth of the hole should be no greater than 5 cm (2 inches) more than the height of the root ball – the soil at the bottom of the hole may be broken up. When planting a large heavy root ball, the soil at the bottom can be left solid to prevent the tree from settling lower. The finished level of the plant should be at the same level as it was grown (i.e. at the level of the root collar – see diagram).

Bare root material: Trees and shrubs purchased bare root in the early spring are dormant (buds have not broken) and should be planted as soon as possible. Bare root species are often economical (for a given size) and preferred when large quantities of seedlings are needed. However, they require careful handling to limit root damage; the roots must be kept moist. Before planting, broken roots should be cleanly removed with sharp pruningclippers (secateurs). A handful of bone meal is spread over the wet roots before adding a good soil mixture (soil + compost; 3:1 mix), tamped down to remove air pockets.

Balled trees and shrubs: Trees and shrubs may be purchased with their root mass wrapped in burlap and secured with string or rope. Very large trees may have the root ball in a wire basket. These trees and shrubs are planted exactly the way they are purchased. The plant is placed in the planting hole and the hole three-quarters filled with a good soil mixture, tamped down to remove air pockets, and watered well. A soluble transplant fertilizer (5-15-5) may be used in watering. The string or rope is removed from the trunk and the burlap or loops of the wire basket are folded back and tucked out of sight. More soil mixture is added and tamped down to bring the surface up to grade.

Fibre pots: Shrubs and smaller trees may be purchased in fibre pots. Leave the plant in the pot for planting. Break off the pot rim to the soil level and make three cuts with a sharp knife halfway up from the bottom. Do not remove the bottom of the pot. The pots are made with stiff paper fibre and will disintegrate in the soil over time. Plant roots will readily penetrate the pot. Fill in the hole (which is wider than the pot) with a good soil mix, tamp down and water with a soluble root stimulating fertilizer.

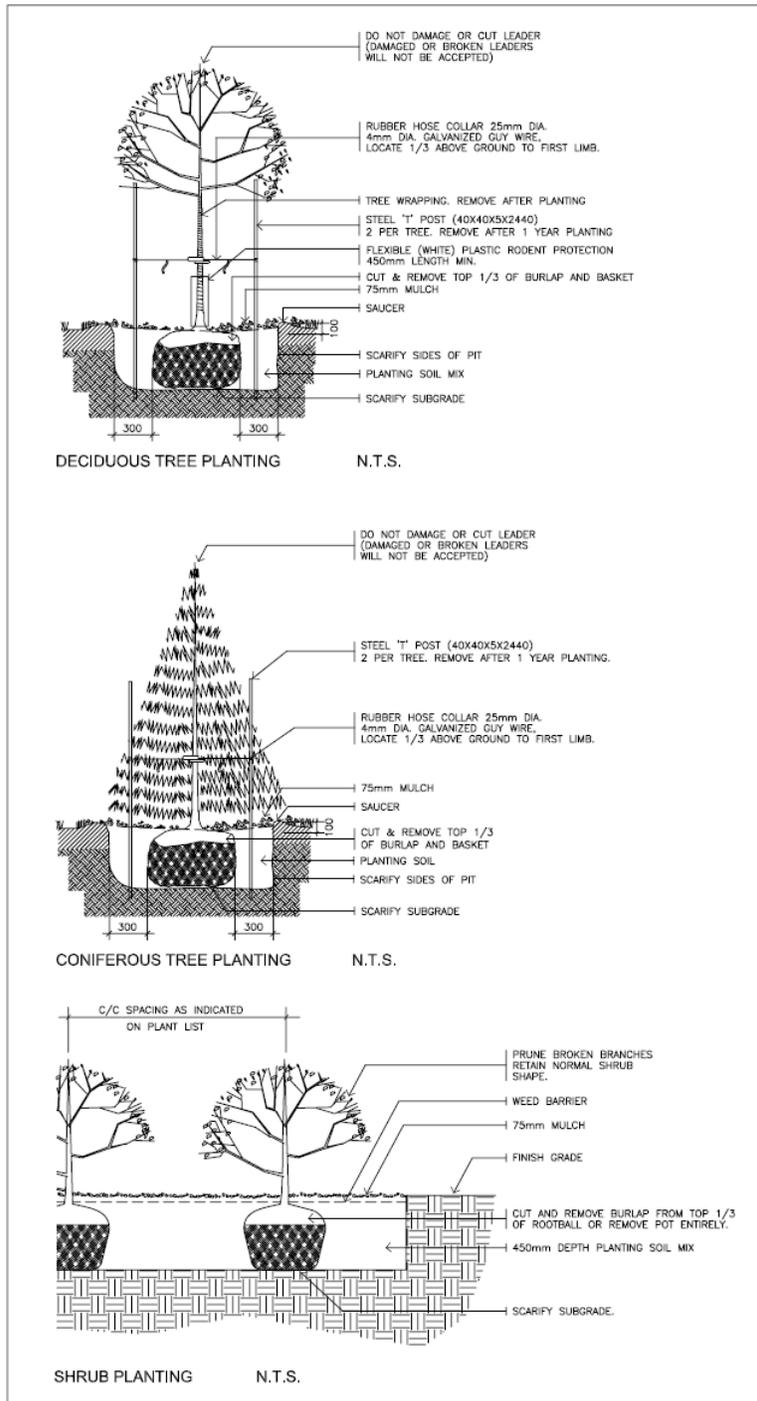
Plastic pots: Shrubs and smaller trees may be purchased in plastic or rubber containers. They should be watered thoroughly before removing them from the container. Tapping on the sides and bottom will loosen the soil and allow the plant to slip out. Loosen and spread exposed roots that appear crowded. To free very tightly matted roots make several vertical cuts 2.5 cm (1 inch) into the root mass.

Post-planting care: It is beneficial to make a 10 cm (4 inch) saucer around the planting hole to aid water capture and penetration. Water the tree or shrub

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thoroughly before applying a 10 cm (4 inch) layer of coarse-fibred mulch, taking care to remove any mulch immediately around the stem (see diagram). Watering should be done one week after planting, and every week thereafter depending on weather conditions. Warm dry weather will increase the frequency of watering. Staking may be necessary if the sapling is planted in an exposed area. Traditionally a tall stake has been used, place on the side of the prevailing wind and long enough to reach just below the first branches. A low 30 cm (12 inch) stake is now often preferred since it allows the tree to move naturally in the wind. Stakes should be removed after two to three years.

PLANTING DIAGRAM



LIST OF RECOMMENDED TREE SPECIES FOR MISSISSIPPI MILLS

| Size | Deciduous | Conifer |
|-------------|--|---|
| Large Trees | Basswood (Tilia) | Eastern White Cedar (Thujaoccidentalis) |
| | Northern Catalpa (Catalpa Speciosa) | White Pine (Pinusstrobus) |
| | Princeton Elm (Ulmus) | White Spruce (Piceaglauca) |
| | Hackberry (Celtisoccidentalis) | Tamarack (Larixlaricina) |
| | Freeman Maple (Acer x freemanii) | |
| | Red Maple (Acer rubrum) | |
| | Silver Maple (Acer saccharinum) | |
| | Sugar Maple (Acer saccharum) | |
| | Bur Oak (Quercusmacrocarpa) | |
| | Red Oak (Quercusrubra) | |
| | White Oak (Quercus alba) | |
| | Black Locust (Robiniapseudoacacia) | |
| | White Birch (Betulapapyrifera) | |
| Small Trees | Crabapple (Malus) | |
| | Pagoda Dogwood (Cornus alternifolia) | |
| | Hawthorn (Crataegus) | |
| | Serviceberry (Amelanchier canadaensis) | |
| | Honey-locust (Gleditsiatricanthos) | |
| | Apple (Malus domestica) | |
| | Pear (Pyruscommunis) | |
| | Autumn Brilliance Serviceberry (Amelanchier grandiflora 'Autumn Brilliance') | |
| | Autumn Spire Maple (Acer rubrum 'Autumn Spire') | |
| | Bowhall Maple (Acer rubrum 'Bowhall') | |
| | Red Rocket Maple (Acer rubrum 'Red Rocket') | |
| | Apollo Sugar Maple (Acer saccharum 'Barrett Cole') | |
| | Prairie Sentinel hackberry (Celtis occidentalis 'Prairie Sentinel') | |
| | Corthian Linden (Tilia cordata 'Corzam') | |
| | Brandon Elm (Ulmus Americana 'Brandon') | |