4. **LANDSCAPING AND LANDSCAPE PRESERVATION STANDARDS**

4.1. **DEFINITIONS**

Rare tree specimen: A tree that is (1) of a species classified as rare or endangered at either the state or federal level and/or (2) included in the most current version of the Maine Register of Big Trees, published by the Maine Department of Conservation.

4.2. **PRESERVATION OF SIGNIFICANT SITE FEATURES**

The applicant shall clearly identify all significant natural features on the site, as defined in Section 14-526 of the City Code, on the submitted boundary survey and site plan, and shall clarify the proposed measures for the preservation and protection of all such features both during and after construction.

4.3. **PRESERVATION OF EXISTING VEGETATION**

4.3.1. The applicant shall provide a tree survey performed by a licensed land surveyor, arborist, forester, or landscape architect. The tree survey shall clearly indicate forest type and the location, size and species of all existing trees 10" DBH or greater on the site. For sites with a high density of existing trees, the survey shall identify all existing shade and ornamental trees that may have been part of a prior landscape scheme for the site and the location, average size and species of groves of trees, and of individual trees greater than 16" DBH.

4.3.2. Trees or groups of trees to be preserved shall be inspected and approved by the City Arborist or their designee and shall be clearly identified on the Site Plan, Subdivision Plat, Landscape Plan and Grading Plan. Where required by the reviewing authority, property deeds shall include language and plans to help ensure that current and future landowners are aware of all preservation requirements tied to the property. The grading plan shall clearly indicate any proposed grade changes within the drip line of trees designated for preservation.

4.3.3. Tree Preservation efforts shall include posting of ‘Tree Protection Zones’ or ‘Limit of Work Zones’ in the form of obvious signage.

4.3.4. Fencing or other protective barriers shall be erected outside the drip line of individual, groupings of or perimeter trees to be preserved.

- No storage of construction equipment, digging, trenching or other soil disturbance shall be permitted within the drip-line of trees to be preserved.
- Areas of trees or other vegetation to be preserved shall not be used for temporary stormwater runoff storage during construction.
• Protective barriers and signage shall remain in place until completion of the project.

During the pre-construction meeting and prior to the onset of any construction including site work, the Department of Public Services or their designee shall inspect all installed protective barriers.

4.3.5. Tree preservation locations and measures to protect preserved vegetation shall be identified or noted in detail on the Landscape Plan and cross-referenced on the Site Plan, Subdivision Plat and Grading Plan.

4.3.6. Upon completion of the project, plant material that has been designated for preservation shall be subject to the maintenance and inspection requirements outlined in this section. Preserved vegetation and new plantings that show signs of construction damage within a one year period following construction, including but not limited to bark damage or excessive root damage, grade changes other than those originally indicated in the approved grading plan, soil compaction due to heavy equipment traversing closely, or general decline due to mechanical or natural conditions shall be rejected and must be replaced prior to the release of any defect guarantee. Any rejected tree will be subject to the following replacement requirements:

• For every existing tree rejected that is 16” or more in caliper DBH, two (2) replacement trees listed on the City of Portland approved native species list shall be planted on the site.

• For every existing tree rejected that is between 10” and 15” in caliper DBH, one (1) replacement tree listed on the City of Portland approved native species list shall be planted on the site.

4.3.7. The developer shall be responsible for making all contractors aware of preservation requirements prior to any construction activities. See specification IV-2 for typical tree preservation detail.

4.4. Reserved

4.5. SITE LANDSCAPING

4.5.1. All Landscape Design

Site landscaping should result in attractive, low-maintenance outdoor spaces that incorporate site definition and screening and support biodiversity.
4.5.2. **Screening and Buffers**

Where required, buffer areas shall be comprised of existing trees and vegetation, new landscaping or a combination thereof to create a dense, mixed Buffer incorporating both understory and tree canopy layers. While primarily of benefit from a ground level pedestrian viewpoint, such screening should also effectively provide screening when viewed from upper floors of surrounding properties, where applicable. New shrubs shall be approximately three (3) feet in mature height and shall be spaced 6-8 feet apart. Specification IV-3 provides an example of buffering between compatible uses.

Buffers between contrasting land uses may incorporate earthen berms not exceeding 4:1 slope, opaque fencing, masonry wall or a combination thereof, in addition to landscape plantings. Where fencing or masonry wall is proposed as part of a buffer, less landscaping density is acceptable; however, buffers shall still include trees, shrubs and other vegetation.

Landscaped buffers within the site shall complement and enhance and structures and site amenities, provide screening between structures, and buffer undesirable views from general public areas, from existing structures and from residents of proposed units. Accessory site elements such as parking and loading areas, utility structures, dumpsters, storage areas and other hardscaped or unvegetated areas, shall be located and screened from view from public areas and adjacent properties. Screening shall be accomplished with opaque fencing of high architectural quality, masonry wall and/or dense evergreen landscaping. Where fencing or masonry wall is proposed as part of a buffer, less landscaping density is acceptable; however, buffers shall still include trees, shrubs and other vegetation. Specification IV-7 provides an example of screening of accessory site elements.

4.5.3. **Industrial and Commercial Development:**

In addition to other requirements of the City Code and of this section, industrial and commercial developments shall incorporate landscaping that:

- Enhances proposed buildings with foundation plantings in the vicinity of public entrances to all buildings and in areas with uninterrupted or predominantly blank facades (Illustration VI-5 provides an example of interior site landscaping for commercial and industrial sites).
- Defines roadways and driveway entrances.

4.5.4. **Planned Residential Unit Development (PRUDs)**

Required trees to be planted and/or preserved shall separate and screen proposed buildings and separate and screen proposed recreational uses. Where cul de sacs are provided, landscaping consisting of native or adapted low maintenance vegetation shall be provided. See Illustration VI-4 for typical cul de sac landscaping.
4.5.5. **Parking Areas**

Landscaping shall be incorporated into the development of surface parking to reduce adverse environmental and aesthetic impacts, to shade pavement to reduce heat island effect and to screen parking areas from public view. Plant materials shall be selected for appearance, durability, and tolerance to salt. Illustrations VI-6a and VI-6b provide examples of parking lot screening.

Landscaping that abuts areas of vehicular use shall be adequately protected and separated from vehicles. Protection should be in the form of curb stops, continuous curbing or guardrails. Curbing and guardrails shall be designed with adequate visibility and durability in order to withstand normal snow plowing operations.

4.5.6. **Snow Storage**

Snow storage areas shall not encroach on areas designated to meet minimum parking requirements but may be located in landscaped areas provided that appropriate landscape materials are selected which can withstand such snow storage. Snow storage shall not be located where it would adversely impact the functionality of bio-retention or other stormwater management systems.

4.5.7. **Walls and Fences**

Fences and walls within public view must be of high architectural quality. Chain link and wire mesh fences shall be vinyl coated, dark in color, out of direct public view and shall be complimented with landscaping.

- For residential development, chain link fence shall be a minimum of 6-gauge fence fabric.
- For commercial or industrial development chain link fence shall be 9-gauge fence fabric mounted on schedule 40 pipe posts.

Electrified or barbed fencing is not permitted. Masonry walls shall be constructed of stone, brick or other durable and attractive materials. Concrete block walls are not permitted except where variety in color, design and detailing of the materials are of high architectural quality.

4.5.8. **Slope Stabilization**

Stabilization of slopes between 5% and 50% shall incorporate installation of a mixture of vegetation, organic mulch and/or erosion control mix.

Stabilization of slopes greater than 50% must incorporate biotechnical and/or structural methods including but not limited to terracing rip rap or retaining walls in addition to vegetation. Retaining walls, if four (4) feet in height or greater from the bottom of the footing to the top of the wall and/or if supporting a surcharge, must be designed by a licensed engineer and require a City of Portland Building Permit.
4.5.9. **Low Impact Development (LID) Practices**

It is the City’s policy to encourage Low Impact Design (LID) strategies and practices to capture and infiltrate stormwater runoff. LID is the process of developing land to mimic the natural hydrologic regime. It incorporates land planning and design practices and technologies to achieve this goal. LID is also discussed in Section V of this Technical Manual.

4.5.10. LID strategies and practices relating to site landscaping requirements include but are not limited to bio-retention, grassed filter strips, green roofs, rain gardens and vegetated swales.

### 4.6. **STREET TREES**

Arrangement and spacing of trees proposed in the City Right of Way shall be coordinated with the Portland City Arborist or their designee. If it is determined by the City Arborist that there is not adequate space or conditions for street trees in the public right of way or if there is a conflict between the location of proposed street trees and the location of existing or proposed underground utilities, the required number of street trees shall be provided on private property or through a contribution to the City of Portland Tree fund as specified in paragraph 4.6.4. Tree species shall be selected according to the City of Portland recommended tree list (Figure IV-1). Trees proposed in the sidewalk shall be planted with approved tree planters or grates, as shown in figure IV-6.

#### 4.6.1. **Residential Development**

**Single-family residential:** Single-family residential developments shall provide a minimum of two (2) street trees per unit, planted in the City right of way unless otherwise approved and spaced twenty-five (25) to thirty-five (35) feet on center.

**Multi-family residential:** Multi-family residential developments shall provide a minimum of one tree per unit, planted in the City right of way unless otherwise approved and spaced thirty (30) to forty five (45) on center.

**Single-family residential subdivisions:** Single-family residential subdivisions shall provide a minimum of two (2) trees per lot, planted in the City right of way unless otherwise approved and spaced thirty (30) to forty five (45) feet on center.

**Standards for Manufactured Housing:** Where manufactured housing is proposed within traditional single family subdivision or within a manufactured housing park, landscaping for such housing shall comply with the standards as set forth in Section 14-499.5 of the City Code- Additional Requirements for Manufactured Housing Parks.

Where a single family, single component manufactured house is sited in a residential zone, landscaping and street tree requirements shall correspond to the standards for single-family residential development of the City Code and of this section.
4.6.2. **Planned Residential Unit Developments (PRUDs):** Where a manufactured housing park or subdivision is also a planned residential unit development (PRUD), the development shall provide a minimum of two (2) street trees per unit, planted within 8-10 ft of the City right of way and/or private roadway proposed as part of the development.

4.6.3. **Commercial, Industrial and Institutional Development:** Commercial, industrial and institutional developments shall provide street trees thirty (30) to forty five (45) feet apart on center in the City right of way along all street frontages unless otherwise approved.

4.6.4. **Street Tree Alternatives:** The Site Plan Ordinance Section 14-526 (b) 2. *Landscaping and Landscape Preservation* b. *Site Landscaping* (iii) *Street Trees* states that where the applicant can demonstrate that site constraints prevent the planting of required street trees in the City right of way, the Reviewing Authority may permit the following to be counted towards the street tree requirement. The alternatives to a street tree in the ROW should help achieve the objectives of a street tree and contribute to the street environment. The following specifications are provided to guide the applicant; the acceptability of the alternative to a street tree shall be at the discretion of the City Arborist.

   a. The preferable location for new street trees that cannot be located in the ROW along the frontage of the site is on public land or facilities elsewhere in the neighborhood. Locations may include esplanades and sidewalks in the neighborhood, and also places such as parks, playgrounds, and other areas where the public benefit would be derived from the addition of new trees. Evidence that the planting site was unlikely to be redeveloped in the near future and that the trees would be protected and looked after would also be required.

   b. The requirement for street trees may be met by incorporating measures to enhance tree survival (such as raised planters, irrigation and structural soils) where these have been recommended and agreed by the City Arborist. The objective is to improve the likelihood of the new tree becoming established and to reduce the need for costly maintenance in the future. The cost of the agree measure(s) would be the basis for the calculation, as follows:

   \[
   \text{(Cost of measure(s))} \div \text{(Contribution currently assessed for a new street tree)} = \text{(# of street tree equivalent)}
   \]

   c. Existing healthy trees that are six (6) inches or more in caliper, visible from the right of way and on the site within 20 (twenty) feet of the property line may be counted as street trees. Plans for the protection and preservation of these trees during construction shall be included as part of the development review.
d. New street trees may be planted where visible from the right of way within 20 (twenty) feet of the property line, subject to the species being appropriate to the location and from the Recommended Tree List (Figure IV-1). Applicants should note that trees planted within the site would be subject to the Performance Guarantee Defect period provisions and should be documented on deed plans for future preservation.

e. Where the option to install other planted features is being considered, applicants will need to submit comprehensive information and document that the proposal would fully meet the ordinance requirements.

f. Where the other alternatives are demonstrated to be not feasible, a contribution for each required street tree may be made into the City of Portland’s Tree Fund in accordance with the table below. The contribution would be used by the City to provide street trees in the right of way or in the neighborhood of the proposals site. The contribution would be considered a “one-time” Infrastructure Contribution which is payable prior to the issuance of a building permit. It should be noted that at least 85% of the Tree Fund would be allocated towards new trees and 15% towards maintenance to ensure trees get established or to replace failing trees.

- Contribution for new street tree $400.00
- Contribution for tree to replace “heritage” or feature mature tree $100.00 per inch diameter of the removed existing “heritage” or feature mature tree
- Contribution where applicant plants a tree to replace “heritage” or feature mature tree $100.00 per inch diameter of removed existing “heritage” of feature mature tree less $400.00

4.7. PLANT SELECTION

4.7.1. All trees and shrubs shall comply with the standards set forth by the American Standard for Nursery Stock (ANSI Z60.1 - 2004). These standards are available through the Department of Public Services and at http://anla.org/index.cfm?area=&page=Content&categoryID=260

4.7.2. All trees and shrubs shall be nursery grown, healthy, free of disease and insect pests, and shall have a well developed and compact root system. Plant material showing signs of a lack of proper nursery care or a lack of pruning or cultivation, or which is not true to name will be classified as collected stock regardless of its source and shall be rejected.

4.7.3. Proposed and shrubs installed as part of the landscaping plan shall be comprised of at least 50% native species.
4.7.4. The developer shall be responsible for preventing the spread of existing or the introduction of new invasive species on the site, as identified below. If, within one (1) year following construction, invasive species are identified on the site or if such species are pre-existing on the site but are determined to have spread by the City Arborist, the applicant shall be required to implement appropriate control measures prior to the release of the defect guarantee. Accepted mechanical and chemical control methods are provided by the Maine Natural Areas Program (MNAP) of the Maine Department of Conservation in their Invasive Plant Fact Sheets (available through the Department of Public Services and through the MNAP program website: http://www.maine.gov/doc/nrimc/mnap/features/invasives.htm).

The following plant species are recognized as invasive species that are characteristically adaptable, aggressive, and have a high reproductive capacity. (1) Asiatic Bittersweet (Celastrus orbiculata); (2) Autumn and Russian Olive (Elaeagnus umbellata and Elaeagnus angustifolia); (3) Black Swallowwort (Cynanchum louseae); (4) Brazilian Waterweed (Egeria densa); (5) Common and Glossy Buckthorn (Rhamnus cathartica and Frangula alnus); (6) Common Reed (Phragmites australis); (7) Eurasian Milfoil (Myriophyllum spicatum); (8) Fanwort (Cabomba caroliniana); (9) Garlic Mustard (Alliaria petiolata); (10) Hydrilla (Hydrilla verticillata); (11) Japanese Barberry (Berberis thunbergii); (12) Japanese Honeysuckle (Lonicera japonica); (13) Japanese Knotweed (Fallopia japonica); (14) Japanese Stilt Grass (Microstegium vimineum); (15) Lesser Celandine (Ranunculus ficaria); (16) Mile-a-Minute Weed (Polygonum perfoliatum); (17) Morrow and Tartarian Honeysuckle (Lonicera morrowii and Lonicera tartarica); (18) Multiflora/Rambler Rose (Rosa multiflora); (19) Porcelainberr (Ampelopsis Milfoil (Myriophyllum heterophyllum); (22) Water Chestnut (Trapa natans); (21) Norway Maple (Acer platanoides) (23) Yellow-flag Iris (Iris pseudacorus).

4.7.5. Trees selected from the Recommended Tree List of this Section shall conform, at a minimum, to the sizes specified on the list.

4.7.6. All upright deciduous and evergreen shrubs shall be a minimum of 3 feet tall at mature height. All spreading evergreen and deciduous shrubs shall be a minimum of 2-2.5 feet in width at maturity.

4.7.7. Ground covers planted in lieu of grass shall be planted at a level of coverage equivalent to one complete growing season. Grass areas shall be planted with Kentucky Bluegrass (Poa pratensis), Red Fescue (Festuca rubra), Tall Fescue (Festuca arundinacea) or Perennial Ryegrass (Lolium perenne L.). Rolled turf, erosion reducing net or suitable mulch along with landscaping shall be used in swales or other areas subject to erosion. Mulching material shall be a minimum of three (3) inch deep wood chip or bark mulch.
4.7.8. Inorganic mulches are not permitted.

4.7.9. No plantings used to satisfy City landscaping requirements shall be comprised of inorganic materials.

4.7.10. Landscaping, earth moving and grading activities shall be performed according to standards accepted good planting and grading procedures and in accordance with the approved Site Plan, Subdivision Plat, Grading Plan and Landscape Plan.

4.7.11. No plant shall be moved after the bud break unless so authorized by the City Arborist or their designee. Planting periods are between April 1st and to July 1st and/or September 1st and November 1st. Landscaping which cannot be installed prior to issuance of a Certificate of Occupancy shall be subject to a performance guarantee according to Section 14-526 of the City Code.

4.7.12. Tree planting and other landscaping for subdivisions that cannot be installed prior to release of the performance guarantee must be insured by a defect bond as described in Section 14-50 of the City Land Use Code.

4.7.13. All bare soil areas shall be vegetated and/or mulched prior to the issuance of a Certificate of Occupancy.
<table>
<thead>
<tr>
<th>Common Name</th>
<th>Botanical Name</th>
<th>Cultivars</th>
<th>Street-Tree</th>
<th>Native Uses</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Hedge Maple</td>
<td>Acer campastrum</td>
<td>&quot;Queen Elizabeth&quot;</td>
<td>X</td>
<td>St</td>
<td></td>
</tr>
<tr>
<td>2 Paperbark Maple</td>
<td>Acer griseum</td>
<td></td>
<td>O</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 &quot;Rocky Mtn Glow&quot; Maple</td>
<td>Acer grandidentatum</td>
<td>&quot;Rocky Mtn Glow&quot; Maple</td>
<td></td>
<td>N</td>
<td>Smaller in size than native Sugar Maple</td>
</tr>
<tr>
<td>4 Striped Maple</td>
<td>Acer pennsylvanicum</td>
<td></td>
<td>X</td>
<td>N</td>
<td>good for naturalizing in shaded areas</td>
</tr>
<tr>
<td>5 &quot;Three-flower&quot; Maple</td>
<td>Acer triflorum</td>
<td></td>
<td>X</td>
<td>SuO</td>
<td>Interesting bark, good Fall color</td>
</tr>
<tr>
<td>6 Serviceberry</td>
<td>Amelanchier spp.</td>
<td>&quot;Cumulus&quot;, &quot;Robin Hill Pink&quot;</td>
<td>X</td>
<td>X</td>
<td>N/O</td>
</tr>
<tr>
<td>7 European Hornbeam</td>
<td>Carpinus betulus</td>
<td>Upright forms available</td>
<td>X</td>
<td>St</td>
<td></td>
</tr>
<tr>
<td>8 American Hornbeam</td>
<td>Carpinus caroliniana</td>
<td>X</td>
<td>X</td>
<td>St</td>
<td></td>
</tr>
<tr>
<td>9 Koosia Dogwood</td>
<td>Cornus kousa</td>
<td>Many cultivars</td>
<td></td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>10 Thornless Cockspur Hawthorn</td>
<td>Crataegus crus-galli inermis</td>
<td>X</td>
<td>St</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Winter King Hawthorn</td>
<td>Crataegus viridis &quot;Winter King&quot;</td>
<td></td>
<td>N/O</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 &quot;Lprrelathem&quot; Ash</td>
<td>Fraxinus pennsylvanica</td>
<td>X</td>
<td>St</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Amur Maackia</td>
<td>Maackia amurensis</td>
<td>X</td>
<td>St</td>
<td>Single-stem</td>
<td></td>
</tr>
<tr>
<td>14 Flowering Crabapple</td>
<td>Malus x</td>
<td>&quot;Sargent&quot;, &quot;Spring Snow&quot;, &quot;Donald Wyman&quot;</td>
<td>X</td>
<td>St</td>
<td>&quot;Spring Snow&quot; - fruitless variety</td>
</tr>
<tr>
<td>15 Magnolia</td>
<td>Magnolia spp.</td>
<td>Many cultivars</td>
<td></td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>16 Hoop-Hornbeam</td>
<td>Ostrya virginiana</td>
<td>X</td>
<td>N</td>
<td>Tolerates shade / understory</td>
<td></td>
</tr>
<tr>
<td>17 Sourwood</td>
<td>Oxydendrum arboreum</td>
<td></td>
<td>X</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>18 Sargent Cherry</td>
<td>Prunus sargentii</td>
<td>X</td>
<td>O</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 Japanese Tea Lilac</td>
<td>Syringa reticulata &quot;Ivory Silk&quot;</td>
<td>X</td>
<td>St</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 Korean Stawartsia</td>
<td>Stawartsia koreana</td>
<td></td>
<td></td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>21 &quot;Wireless&quot; Zelkova</td>
<td>Zelkova serrata - &quot;Wireless&quot;</td>
<td>X</td>
<td>St</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Small Trees - (Mature Height < 25')**

**Medium Trees 25' - 45'**

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Botanical Name</th>
<th>Cultivars</th>
<th>Street-Tree</th>
<th>Native Uses</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 River Birch</td>
<td>Betula nigra</td>
<td></td>
<td>X</td>
<td>O/N</td>
<td></td>
</tr>
<tr>
<td>2 Yellow Birch</td>
<td>Betula lenta</td>
<td></td>
<td>X</td>
<td>O/N</td>
<td></td>
</tr>
<tr>
<td>3 Hackberry</td>
<td>Celtis laevigata</td>
<td></td>
<td>X</td>
<td>St</td>
<td></td>
</tr>
<tr>
<td>4 Shagbark Hickory</td>
<td>Carya ovata</td>
<td>N</td>
<td></td>
<td>Low availability / good native plant</td>
<td></td>
</tr>
<tr>
<td>5 Yellowwood</td>
<td>Cladrastis kentukea</td>
<td></td>
<td>X</td>
<td>SuO</td>
<td></td>
</tr>
<tr>
<td>6 Turkish Filbert</td>
<td>Corylus colurna</td>
<td></td>
<td>X</td>
<td>St</td>
<td></td>
</tr>
<tr>
<td>7 Katsuratree</td>
<td>Ceridoidylum japonicum</td>
<td></td>
<td>X</td>
<td>O/N</td>
<td></td>
</tr>
<tr>
<td>8 Korean Mtn Ash</td>
<td>Sorbus alnifolia</td>
<td></td>
<td>X</td>
<td>SuO</td>
<td></td>
</tr>
<tr>
<td>9 Thornless Honeylocust</td>
<td>Gleditsia triacanthos var. inermis</td>
<td>&quot;Skyline&quot;, &quot;Halco&quot;</td>
<td>X</td>
<td>St</td>
<td></td>
</tr>
<tr>
<td>10 Cortree</td>
<td>Phellodendron amurense</td>
<td></td>
<td>X</td>
<td>St</td>
<td></td>
</tr>
<tr>
<td>11 English Oak</td>
<td>Quercus robur</td>
<td>Upright / Columnar Varieties</td>
<td>X</td>
<td>St</td>
<td></td>
</tr>
</tbody>
</table>
### Section 4 - Landscaping and Landscape Preservation

**Adopted 7-19-10 Rev. 6-17-11**

**DATE:**
**AUGUST 2009**

**RECOMMENDED TREE LIST - PAGE 2**

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Botanical Name</th>
<th>Cultivars</th>
<th>Size</th>
<th>Stock</th>
<th>Color</th>
<th>Notes</th>
<th>Uses</th>
<th>X</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rock Maple</td>
<td>Acer rubrum</td>
<td>'Sports'</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sugar Maple</td>
<td>Acer saccharum</td>
<td>'Sports'</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Silver Maple</td>
<td>Acer saccharinum</td>
<td>'Sports'</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Honey Locust</td>
<td>Gleditsia triacanthos</td>
<td>'Sports'</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Eastern Redbud</td>
<td>Cercis canadensis</td>
<td>'Sports'</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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**Notes:**

- Trees are to be selected for their aesthetic appeal and compatibility with the surrounding landscape.
- Trees should be pruned to maintain a healthy, attractive shape.
- Trees should be selected for their ability to thrive in the local climate and soil conditions.

**Uses:**

- Shade trees
- Street trees
- Landscape elements

**X** indicates trees recommended for use in the city of Portland, Maine.

**Other** includes additional information about the tree, such as special care requirements or disease resistance.

**DATE:**
**AUGUST 2009**

**RECOMMENDED TREE LIST - PAGE 2**

**RECOMMENDED TREE LIST - PAGE 2**

**DATE:**
**AUGUST 2009**

**RECOMMENDED TREE LIST - PAGE 2**

**DATE:**
**AUGUST 2009**

**RECOMMENDED TREE LIST - PAGE 2**
SECTION IV

DATE: AUGUST 2009

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FIGURE: IV-2

STDS FOR LANDSCAPING AND PRESERVATION OF EXISTING VEGETATION SECTION IV

TREE PRESERVATION DETAIL
A. Commercial/Industrial Screening

NOT TO SCALE

NOTES SEE (b) PERIMETER COMPATIBLE USES PAGE 7
NOTES:

16”Ø EXPANDABLE TREE OPENING. 0.25” SLOT OPENINGS.

SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

WHEN THE TREE GRATE IS INSTALLED IN A CONCRETE SIDEWALK, A NOTCH MUST BE INSTALLED ALONG THE EDGE TO HOLD THE GRATE, WHEN INSTALLED IN A BRICK SIDEWALK IT REQUIRES A FRAME TO BE INSTALLED TO HOLD THE GRATE IN PLACE.

PLAN VIEW

EXPANDABLE TREE GRATE
NEENAH MODEL R-8810

NOT TO SCALE

http://www.nfco.com/literature/TreeGrateCatalog22/Avenue.pdf

DATE: MARCH 2011
REVISED:

CITY OF PORTLAND, MAINE
TECHNICAL STANDARDS MANUAL

STDS FOR LANDSCAPING AND PRESERVATION OF EXISTING VEGETATION SECTION IV

EXPANDABLE TREE GRATE FOR NARROW RESIDENTIAL URBAN STREETS

FIGURE: IV-4A
NOT TO SCALE

INTERIOR SITE LANDSCAPING
A. Screening from Street (section)

PARKING

8' MIN.

SIDEWALK

STREET

TREES, 15-20' O.C.

DENSE AND CONTINUOUS UNDERPLANTINGS

STREET TREES, 25-35' O.C., WHERE REQUIRED.

PARKING

8' MIN.

SIDEWALK

STREET

TREES, 15-20' O.C.

DENSE AND CONTINUOUS UNDERPLANTINGS A TOP BERM

NOT TO SCALE
Section 4 - Landscaping and Landscape Preservation

City of Portland, Maine Technical Standards Manual

STDS FOR LANDSCAPING AND PRESERVATION OF EXISTING VEGETATION
SECTION IV

IV-6B

PARKING LOT SCREENING FROM PUBLIC VIEW

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NOT TO SCALE

SCREENING OF ACCESSORY SITE ELEMENTS

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STDS FOR LANDSCAPING AND PRESERVATION OF EXISTING VEGETATION SECTION IV
FIGURE: IV-7

Location away from building:
- Trash
- Solid fence and gate
- Landscaping required

Location adjacent to building:
- Screening wall as extension of building
- Service entrance
- Building