

ECONOMIC DEVELOPMENT DIVISION
CITY OF CAMBRIDGE

INDUSTRIAL DESIGN GUIDELINES

FOR
CITY OF CAMBRIDGE
INDUSTRIAL AREAS



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FOREWARD

The Industrial Design Guidelines are designed to assist owners and developers of industrial property in the City of Cambridge. These Guidelines are designed to benefit businesses in the parks by establishing a quality industrial park environment, which will provide the long-term benefits of a well-planned and controlled industrial park location.

The guidelines are not meant to overburden prospective purchasers with significant additional building and landscaping costs, but to set out a consistent standard of architectural and site design to ensure the long-term compatibility of business and industrial facilities within Cambridge's industrial parks.

The Guidelines emphasize environmental compatibility, aesthetically pleasing, and cost-effective architectural building design and site layout. The criteria for approval will be based upon general compliance with these guidelines and not rigorous adherence to specific styles, building materials, or planting stock.

These Guidelines are intended to be followed in conjunction with other policies and regulations from other city departments, the Regional Municipality of Waterloo, and other regional and provincial organizations. They are not to be construed as to reduce or lessen the requirements of these, or other regulations.

City staff would be pleased to meet with prospective purchasers of industrial property to review proposed site development plans in relationship to their compliance to these guidelines and to facilitate approval.

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Alternative formats and accommodations are available upon request

INTRODUCTION

The City of Cambridge develops industrial parks to provide serviced land to accommodate growth and encourage new investment into the community. The two newest industrial areas are in the L.G. Lovell Industrial Park, and the Cambridge Business Park and have been designed to accommodate companies requiring small to medium sized landholdings, for a broad spectrum of industrial and warehousing uses.

The City of Cambridge recognizes the importance of creating quality business and industrial parks, and as such has established design principles for these parks. Details on design principles for Site Planning, Architecture and Landscaping of the individual properties are included in these guidelines.

As with all successful Business and Industrial Parks, first impressions are extremely important. These design guidelines will serve to initiate the process of developing a quality Industrial Park. The purchasers of land in the L. G. Lovell Industrial Park and Cambridge Business Park shall be partners in this process; the end result will be an attractive business environment for companies.

These guidelines will be used in assessing Site Plan submissions, and are intended to be flexible. The guidelines set out the minimum acceptable criteria for developments in L.G. Lovell Industrial Park. and Cambridge Business Park. It will be the responsibility of the City to ensure the guidelines are followed in the spirit in which they have been developed, and to evaluate submissions and accept alternative designs which meet and exceed these guidelines.

The guidelines are intended to be followed in conjunction with other policies and regulations from other city departments (for example the Zoning By-Law), the Regional Municipality of Waterloo, and other regional and provincial organizations, and are not to be construed as to reduce or lessen the requirements of these, or other regulations.

INDUSTRIAL AREAS IN CAMBRIDGE

There are three major industrial areas in Cambridge as shown in Figure 1. The two newest parks are the L. G. Lovell Industrial Park and the Cambridge Business Park. The City has been the major land developer of industrial lots in these areas.

These guidelines are intended for implementation in the newest industrial areas in Cambridge, the L.G. Lovell Industrial Park's Pinebush Subdivision and the Cambridge Business Park's Maple Grove Subdivision and Boxwood Business Campus.

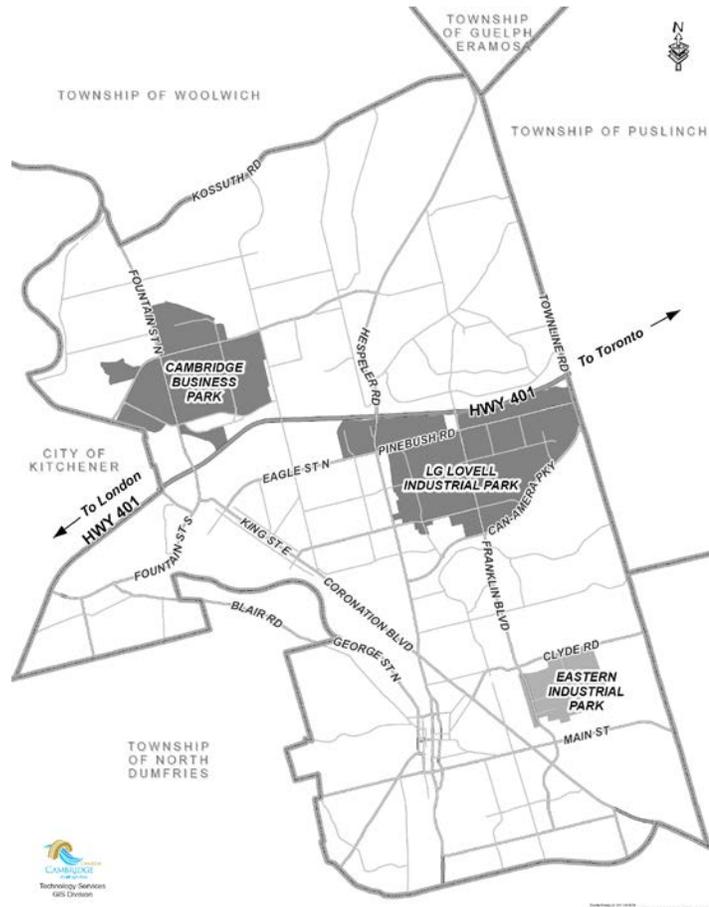


Figure 1. Location of Cambridge Industrial Parks

The Industrial Areas Subject to the Design Guidelines.

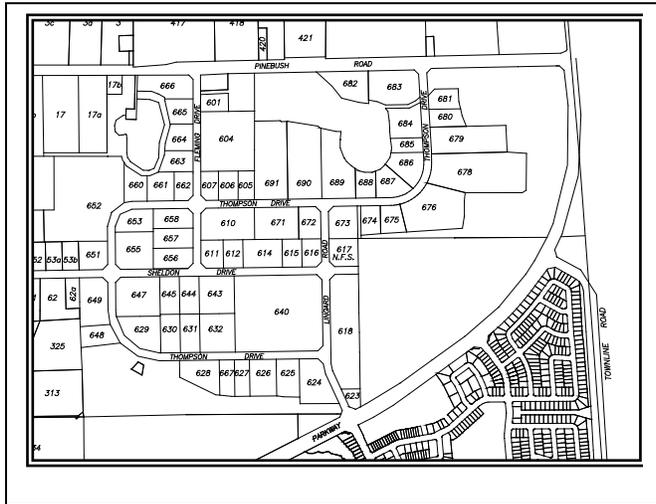


Figure 2.

The Pinebush Subdivision is an extension of the L. G. Lovell Industrial Park, located in the northeast area of the City just south of Highway 401. It is bounded to the north by Pinebush Road, to the east by the existing industrial development along Balmoral Road, to the west by Townline Road, and to the south by the CanAmera Parkway (see Figure 2).

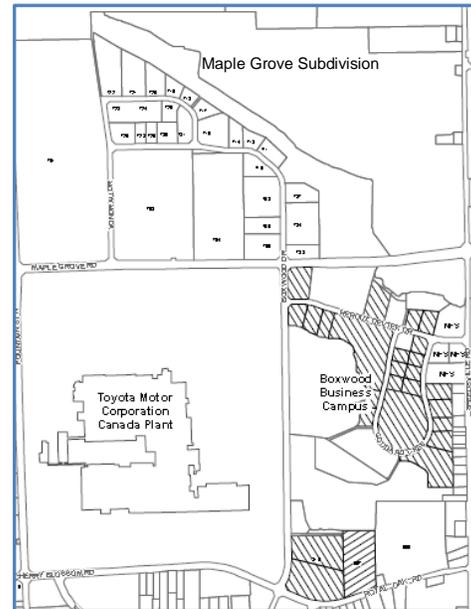


Figure 3.

The Maple Grove Subdivision is an extension of the Cambridge Business Park and is located in the northeast corner of Maple Grove Road and Fountain Street.

The Boxwood Business Campus is bounded by Maple Grove Road to the north, Boxwood Drive to the west, Speedville Road to the east and Royal Oak Road to the south. (see Figure 3).

DESIGN GUIDELINES

General Design Concept

The design principles governing the development of this set of guidelines are as follows:

1. The Pinebush Subdivision is an extension of the L. G. Lovell Industrial Park and as such the overall design shall be coherent with the existing park, and will expand on the design concept.
2. The Maple Grove Subdivision and Boxwood Business Campus are distinct areas within the Cambridge Business Park.
3. In order to achieve a coherent overall image for the business community in these industrial areas, the mixture of uses in the Industrial Park will be co-ordinated through these guidelines, which sets out a design concept for the overall setting and streetscape.
4. The individual sites in the park will have buildings with a distinct corporate identity and quality architectural appearance. Significant office components for the buildings shall be encouraged.
5. Landscaping is an important component of the overall design and the focus shall be to extend the informal landscaping concept in the L. G. Lovell Park to the Pinebush Subdivision, and to create a detailed and informal landscape setting for the Maple Grove Subdivision, and Boxwood Business Campus.

To achieve the images described in the guidelines, the Industrial Design Concept considers four issues as outlined below.

The Business Park Edge

These are areas adjacent to main streets such as Maple Grove Road, Fountain Street, Boxwood Drive, Pinebush Road and the CanAmera Parkway.

There is a need to create the immediate first impressions of a high quality Business Park, not only for the surrounding land uses but equally important for the owners and visitors of the companies located in the Park. Such emphasis on quality will also set a precedent for any future proposals on lands surrounding the Industrial Park.

The Industrial Park Gateways

Pinebush Subdivision

Sheldon Drive and Fleming Road are the main routes into the Pinebush Subdivision. The primary entrances to this subdivision are at the intersections of Pinebush Road and Fleming Drive, and the CanAmera Parkway and Lingard Road.

Maple Grove Subdivision

Maple Grove Road and Fountain Street are the main routes into the Maple Grove Subdivision. The primary entrances to this subdivision are at the intersections of Maple Grove and Vondrau Drive and Maple Grove Road and Boxwood Drive.

Gateway Identity Features appropriate in image and style of the Park will be located on the Gateway sites flanking these entrance roads. These will be surrounded by an informal foundation planting.

The Industrial Park Streetscape

Image shall be of building sites on open landscaped lawns. These shall be seen through informal designs of landscaping of trees and/or shrubs on the streets.

Parking, located between the road and building fronts, will be limited to visitor parking of minimal area. Parking is preferred to be located along the side of properties. The remaining parking requirements and the service areas for the buildings shall be located to the sides and rear of the buildings and will be screened from street view.

Streetscape planting will be informal and allow for sight lines to view the main façade of the building, while screening parking areas, loading areas etc. from the street.

Signage, including corporate, tenant and traffic signage, should be co-ordinated on each property. Signage is regulated by the City of Cambridge Sign By-law.

The Industrial Building Architecture

The Industrial Park will be an image of quality buildings with clear lines constructed of glass, manufactured or natural stone, and precast concrete as preferred materials. Other materials will be reviewed on an individual basis with respect to the architectural quality.

One of the main problems in business parks with industrial uses is the difference in use, scale and construction of the office portion and the plant portion of an industrial building or buildings.

Scale and massing of the buildings will vary depending on the size of the Block and the building use. Both office portions and industrial plants should be unified by the architectural treatment. Where this is not possible, the office portion should be designed as an architectural focal point with a neutral background of plant architecture.

Consideration to the design features of buildings on Corner lots and End View lots shall be given to ensure views along sight lines are in keeping with quality park by focusing on key components of the building or landscaping. Sight lines, which are appropriate to a Corner or End view down a street, will be requested as part of a building's design on corner lots or end view lots.

INDUSTRIAL DESIGN – SITING CONCEPT

Site design shall, above all, recognize and relate to adjacent streets and adjacent developments.

Emphasis on the siting of buildings within the Business Park will be placed on maintaining an image of “the Building and its Lawn” uncluttered with large parking areas when viewed from the front streetscape.

Setbacks

Priority should be given to avoid a constant wall of buildings with similar height, massing and setbacks from street line. Siting of buildings will be encouraged to have a variety of front yard setbacks depending on both the building design and on the siting of adjacent buildings. Front yard building setbacks are a minimum of 12 metres throughout the L.G. Lovell Industrial Park and Cambridge Business Park, except in the Boxwood Business Campus where the front yard setback is 6 metres..

Landscape Buffer Strips

The minimum front landscape buffer shall be 3.0 metres. A 1.5 metre landscape buffer strip for each property should also be provided along all interior block property lines. When combined with the adjacent property's 1.5 metre strip, a 3.0 metre landscaped strip sufficient for tree planting shall be formed.

Service Areas and Outdoor Storage

All service areas shall be screened from view from the streets with landscape screening and/or berming and shall be located at the sides or rears of the buildings.

There shall be no visible outdoor storage. Outdoor storage shall be located in rearyards and screened with landscaping, berming and/or fencing to obscure visibility from the street.

Vehicular Access

Review of both pedestrian and vehicular access to and from sites and their relationship to adjacent sites will be undertaken for co-ordination.

Access driveways at property lines must be separated from the interior side lot line by a minimum 1.5 metre landscape strip. In addition, the driveway can be no closer than 3.75 m to the projection of the side lot line where it intersects the travelled portion of the street. Please refer Section 2.2.4.3 of the City of Cambridge Zoning By-law for additional details.

Fencing

Where fencing in the Pinebush Subdivision is required as per the Zoning By-law (e.g. adjacent to Open Space zoned areas) a minimum 1.5 metre high black vinyl chain link fence shall be installed.

Where fencing of a property is required along a front property line or exterior side yard property line, it is suggested that it be located behind the landscape buffer to permit visibility of the landscaping buffer vegetation from the street. The placement of fencing is subject to the City of Cambridge Fence By-Law.

Drainage

Drainage is to be self-contained with no joint swales. The approved elevations are to be shown on the plans at every corner of the site.

Parking

It is preferred that large scale parking areas for a building or buildings are not located between the building front and the street line. The intent, as previously noted, is to maintain an image of “The Building and its Lawn” as viewed from the street.

Maple Grove Subdivision - The preferred parking configuration is to have minimal visitor parking between the front property line and the front of the building. Where parking in front of the building is required, at least 25 % of the frontage should be kept free of parking stalls.

Boxwood Business Campus - Parking located between the road and building fronts will be limited to visitor parking and designated accessible parking of prescribed area and location. The remaining parking requirements and the service areas for the buildings shall be located to the sides and rear of the buildings.

All parking areas and service areas should be screened from street views using landscaping and /or berms or a combination thereof.

All parking areas shall be paved in a hard surface material where located between the front property line and the rear building line, and between the exterior side yard property line

and the exterior side building line. Recycled asphalt is the preferred material to be used where hard surfaces are not required.

Snow storage provisions should be reviewed in the design of parking layout.

Lighting

Lighting of the development should complement the design of the development. Floodlighting of buildings is encouraged, particularly to emphasize buildings with a strong architectural form. Lighting designs should avoid creating a clutter of light standards. Lights are preferred to be ground mounted within landscaped settings, or mounted on the building itself.

Natural Features

Where possible, siting and building design should recognize and incorporate the natural features of the site (existing trees, contours, etc.).

Priority Blocks

Special consideration will be given in evaluating buildings on Priority Blocks for their massing, materials and landscaping. Such blocks of high visibility are key in maintaining the image of the Industrial Park both from external vantage points and internally a part of the visitor's passage through the streetscape. Priority Blocks are designated as follows:

Gateway Blocks are sites framing each side of the Industrial Park Entry streets. Architecturally, the buildings should have a significant architectural treatment and be the best quality in the Industrial Park. Recommended as well is some form of architectural feature oriented to the corners at the entries. The faces of the buildings onto the Business Park Edges shall also be considered as architecturally significant and subject to review.

Corner Blocks are sites which are located on all corners of the Internal Streets and should have the same architectural orientation as Gateway Blocks, but are not as sensitive in architectural quality.

End View Blocks occur where T-junction or a curve in the street focuses the views in the streetscape onto them. End view blocks shall be reviewed for their architectural interest. Gateway Blocks, Corner Blocks and End view Blocks should have architectural interest due to their exposed situations.

INDUSTRIAL BUILDING DESIGN – ARCHITECTURE

Design Style

The building design is to have a dominant image of well-detailed, well-proportioned, uncluttered lines. Within this concept distinctive designs are to be developed for each project. The character, style, materials and scale of buildings should be compatible with adjacent land uses and buildings. Buildings with a monolithic appearance are generally discouraged unless design excellence is evident. However, articulation of the façades, and the incorporation of details which create a rhythm, such as changes in texture, or coloured trim, may provide adequate relief in some situations.

It is recommended that an architect provide the design for each building project.

Massing

Design emphasis is placed on building massing. Massing will be reviewed in the context of building height, number of stories, roof configuration and building groupings. Of special concern shall be the relationship between the office portion and plant portion of industrial buildings. Windows should be generously used and have a large significant appearance in the elevation design.

The office portion of the buildings in the Park should have a *unified* design treatment with the plant portion. The office should not be the only part of the building to receive design consideration.

Where buildings are located on corner lots, consideration should be given to the exposed exterior side walls visible from the street. These side elevations should incorporate design features to provide some architectural interest. Details which create a rhythm, such as changes in texture, or coloured trim, could be incorporated.

Where a unified approach to the entire building design is not possible, the office portion shall be featured architecturally against a backdrop of a neutral plant building.

Screening of Roof Top Equipment

Roof mounted service equipment will be screened from view. Screening used should ensure the roofscape is an integral part of the design concept with respect to form, materials and colour. Special attention should be given to those areas where the roofs can be seen from adjacent overviews.

Materials and Colours

Buildings are recommended to have a consistent use of the same materials on all elevations.

Where materials on the office portion of a building cannot be the same as on the plant, the materials should be compatible and designed in a unified manner.

For the Boxwood Business Campus, steel, glass, manufactured or natural stone, and precast concrete shall be the preferred materials used on buildings.

Alternate materials will be reviewed and evaluated on the merit of their building design.

There shall be no exposed plain concrete block for visible portions of the exterior wall treatments.

LANDSCAPE DESIGN

Landscape Design Style

The quality of site landscaping is a major consideration in a quality Industrial Park. Landscape plans should be related to and co-ordinated with those proposed on adjacent blocks. Landscape plans should emphasize the principle of the "Building and its Lawn".

The preferred approach is to group trees and shrubs to frame the front face of the building and to use landscaping and/or berming to screen parking areas. Consideration should be given to the angled sight lines from the street. Site grading should complement the landscaping. Foundation planting which complements and focuses attention to the office portion of the building is encouraged.

General Landscaping

Priority shall be given to hard and soft landscaping in the following areas:

- Entrances to the site
- Focal points within the site
- Frontyards and exposed exterior sideyards
- Buffers between sites
- Building faces
- Parking areas

Landscaped areas should be used to buffer the view of parking areas, asphalt and outdoor storage from adjacent streets

Landscape material and colours which are compatible with, and which enhance the park-like environment of the business park should be selected.

Landscape planting adjacent to the Gateway Entries should be designed to complement any Industrial Park Identity Features.

Landscape Features and Minimum Requirements

- 1) Each Site Plan submission should include details on the proposed landscaping plan, which will be reviewed by the Site Plan Review Committee. Details should include the plans for foundation plantings, and the landscape buffer along the front, side and exterior property lines.
- 2) The minimum acceptable landscape treatment will include the following:
 - a) For the Cambridge Business Park Phase 1 and 2, tree placement shall be in accordance with the Master Landscape Plan (Available from the Economic Development Division).
 - b) For the area referred to as Maple Grove Subdivision and Pinebush Subdivision, the front property landscape buffer strip and exterior side yard buffer strip, at a minimum, should have one tree every 10 metres. (For example, a lot with 50 meters of frontage, should have five trees planted along the front landscape buffer.) Along each property's interior side landscape buffer strips, which are 1.5 meters in width, it is recommended that two trees be placed 20 metres apart. When combined with the adjacent property's landscape buffer strip, a minimum of four trees will be spaced 10 metres apart along a combined 3-meter wide landscape buffer.
 - c) For the area referred to as the Boxwood Business Campus, the lots shall have a minimum of 10 deciduous trees per acre, with a minimum caliper of 60 mm. Trees are preferred to be selected from the City's preferred species list, as shown in Appendix A.
 - d) For properties with exterior side yards, the minimum standard as noted above in 2)b or 2)c will be required. In addition, any outdoor storage areas or large scale service areas or parking facilities for vehicles shall be screened from street view and adjacent properties with sufficient landscaping and/or berming.
 - e) All front yards and exterior side yards of the site not landscaped with plant materials, nor paved for pedestrian or vehicular uses shall be sodded. Sod shall be installed to the curb or paved shoulder of the road allowance. Swales, ditches and embankments shall be sodded to stabilize slopes. The balance of the site, excluding areas identified for future expansion of the building, shall be either hydroseeded or drill seeded to establish turf.
- 3) The type of trees to be used shall be as follows:
 - a) All deciduous trees shall have a minimum caliper of 50 mm for the Pinebush and Maple Grove areas, and 60 mm caliper for the Boxwood Business Campus.
 - b) All coniferous trees shall have a minimum height of 1.5 metres.

INDUSTRIAL DESIGN - SIGNAGE

All proposed signage (temporary and permanent) must be submitted to the City of Cambridge for approval. Contact the Building Division of the City of Cambridge for application details at (519) 740- 4613

Proposals showing signage location and type are to be submitted and reviewed with both the Site Plan Application and Sign Permit Application.

All permanent external signage should be designed to be compatible with the building design and scale, location, colour and materials.

The form and massing of the building design, not the signage, should be dominant elements in the streetscape.

Types of signs would include:

- Building Identification Signage
- Traffic Control and Directional Signs
- Industrial Mall Signage
- Temporary Signage

Building Identification Signage

Building identification signs include the name of the building or tenant. When signs are proposed on building facades, they should be on the front elevation.

Freestanding identification signs may include the building address and should be located near the street frontage and ground mounted in a landscape setting. Materials and colours used on the sign should be consistent and compatible with the Building Design. Signs shall not dominate the streetscape by their size or height and may be internally or externally lit.

For size details and approvals, refer to the City of Cambridge Sign By-law.

Traffic Control and Directional Signs

When traffic control or directional signage is desired or required on individual properties, we encourage a design to be developed which is compatible to the building character or other site signage.

Industrial Mall Signage

Signs should be located on the front elevation where external individual tenant identification is required. A set of signage concepts and guidelines must be developed by the mall owner and approved at the Site Plan Application stage. The guidelines will specify the location, size, material and colour of all permissible tenant signage. Where a directory board is desired, it should be ground mounted in a landscape setting.

Construction Signs and Temporary Signs

All construction and temporary signs shall be subject to the City of Cambridge sign by-law.

APPENDIX A

Preferred Deciduous Tree Species

Native

Name (Latin, Common)	Native	Mature Size (m) (ht. X width)
<i>Amelanchier canadensis</i> , Serviceberry	Y	8 x 3
<i>Amelanchier laevis</i> , Allegheny Serviceberry	Y	5 x 6
<i>Acer rubrum</i> , Red Maple	Y	17 x 15
<i>Acer saccharum</i> , Sugar Maple	Y	20 x 15
<i>Celtis occidentalis</i> , Common Hackberry	Y	20 x 18
<i>Cercis Canadensis</i> , Redbud	Y	
<i>Gleditsia triacanthos</i> , Honey Locust	Y	15 x 13
<i>Liriodendron tulipifera</i> , Tulip Tree	Y	25 x 15
<i>Ostrya virginiana</i> , Ironwood	Y	8 X 12
<i>Populus tremuloides</i> , Trembling Aspen	Y	10 x 5
<i>Quercus alba</i> , White Oak	Y	20 x 20
<i>Quercus bicolour</i> , Swamp Oak	Y	15 x 15
<i>Quercus macroparpa</i> , Burr Oak	Y	18 x 3
<i>Quercus rubra</i> , Red Oak	Y	16 x 15
<i>Platanus occidentalis</i> , Sycamore	Y	16 x 13
<i>Sorbus americana</i> , Mountain Ash	Y	10 x 6
<i>Tilia americana</i> , Basswood	Y	25 x 13

Note: The minimum size of deciduous tree to be planted is 60 mm caliper.

Preferred Deciduous Tree Species

Non-Native

Name (Latin, Common)	Native	Mature Size (m) (ht. X width)
<i>Acer campestre</i> , Hedge Maple	No	10 x 10
<i>Acer ginnala</i> , Amur Maple	No	7 x7
<i>Corylus clurna</i> , Turkish Maple	No	15 x 8
<i>Ginkgo biloba</i> , Ginkgo Tree	No	17 x 11
<i>Pyrus</i> varieties, Ornamental Pears	No	13 x 7
<i>Quercus robur</i> , English Oak	No	18 x 13
<i>Quercus robur fastigiata</i> , Pyramidal English Oak	No	15 x 5
<i>Sorbus aucuparia fastigiata</i> , Pyramidal European Mountain Ash	No	11 x 2

Preferred Conifers for Screening

Name (Latin, Common)	Native	Mature Size (m) (ht. X width)
<i>Juniperus virginiana</i> , Eastern Red Cedar	Y	3 x 16
<i>Picea glauca</i> , White Spruce	Y	25 x 6
<i>Pinus strobus</i> , White Pine	Y	20 x 7
<i>Thuja occidentalis</i> , White Cedar	Y	15 x 2

Minimum Size of 1.5 m height w.b. for coniferous tree species.

Preferred Shrub Species

Name (Latin, Common)	Native	Mature Size (m) (ht. X width)
Amelanchier sp., Serviceberry sp.	Some sp.	1.75-10 x 2-5
Cornus sp., Dogwood sp.	Some sp.	1-8 x 1-8
Diervilla lonicera, Bush Honeysuckle	Y	1 x 1.25
Hamamelis sp., Witch Hazel	Some sp.	2 -5 x 2.5 - 5
Hypericum kalmianum, Pot 'O Gold	Y	0.6 x 0.6
Ilex verticillata, Winterberry	Y	2 x 2
Myrica pennsylvanica, Bayberry	Y	2 x 2
Physocarpus opulifolius, Ninebark	Y	2 x 2
Rhus sp., Sumac sp.	Some sp.	1-3 x 2-4
Spiraea latifolia, Meadowsweet	Y	1 x 1.2
Symphocarpos albus, Snowberry	Y	1.5 x 1.2
Viburnum sp., Viburnum sp.	Some sp.	1.5-3 x 1.5-3
Ribes alpinum, Alpine Current	No	1.5 x 1.5