# SCHEDULE ‘M’
# LANDSCAPE MASTER PLAN

PENHORN

AUGUST 9 2021

GRADE RELATED
TOWNS DETAIL (TYPICAL)

HALIFAX TRANSIT

BERKLEY BRAE

COLBURN WALK

PORTL

GREEN VI

## LEGEND

- Canopy Cover Trees (See TREE SPECIES SELECTION table, pg 2 of Landscape Plan Description)
- Existing Vegetation
- Ornamental Trees
- Sod/ Turf
- Seed
- Hedging with Gate
- Low Bush/ Shrub
- Outdoor Seating
- Raised Planter
- Perennial Flower Bed
- Wetland Plants/ Flood Resistant Trees
- Asphalt Multi-Use Path
- Beachstone
- Hardscape
- Concrete Sidewalk
- Podium & Rooftop Sod/ Turf/ Ground Cover

Schedule M

fathom

# Penhorn Development

## Landscape Plan

30 June, 2021

# 01
# Landscape Plan Description

Penhorn Development is situated north and east of Manor Park residential areas and south of the Circumferential Highway (NS-111). The old Penhorn Mall property was primarily asphalt and buildings for much of the site for over 40 years and has been sitting idle since much of Penhorn Mall was closed over a decade ago. This property has been identified in the Urban Forest Master Plan as a high potential site for revegetation.

A mixed Acadian Forest strip located on the north-eastern edge of the property provides a natural buffer between the development and Penhorn Lake, which has public beach access on its north side. The lake is stocked with Trout every year and though is heavily urbanized, it still provides good habitat for many native species of flora and fauna.

The 2013 HRM Urban Forest Master Plan identified the Penhorn Mall site as containing no trees onsite and zero percent canopy cover. Additionally, the site has a high degree of impervious surfaces which, for the most part, all drain into the Penhorn Lake catchment. The Manor Park neighbourhood was identified in the plan as an area that was a considerable revegetation challenge for the municipality.

The Urban Forest Master Plan outlines goals to increase native tree species diversity, distribution, canopy cover and provide additional habitat across the municipality. In Pehnorn, the report highlighted the need to increase species biodiveristy and forest cover from 0% to 20% on site when a new development was implemented (Figures 1 & 2).

The landscape plan for Penhorn Development responds to the call from the HRM Urban Master Plan by substantially increasing tree, shrub and ground cover planting across the site. Street trees have been added to all streets with a spacing of at least 1 tree every 10-15m using the recommended tree species outlined in the Urban Forest Plan. Each townhouse lot would include 3 trees per lot and each multi-unit site would include at least 10 trees per building. The plan shows over 1.1km of new road so that will be over 100 caliper sized street trees, and hundreds of trees on private lots. The northeastern buffer would be supplemented with new plantings as well to increase the density and width of the buffer between the new development. The plan anticipates at least 20% canopy cover within 30-50 years of implementing the plan to reach the Urban Forest milestone.

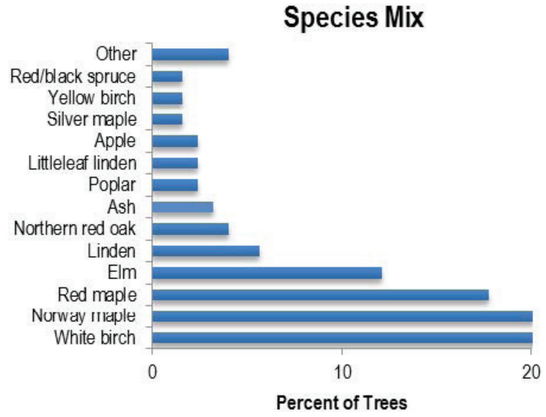


Figure 1. Percentage of Tree Species in Manor Park Residential Area (Source HRM Urban Forest Master Plan 2013)

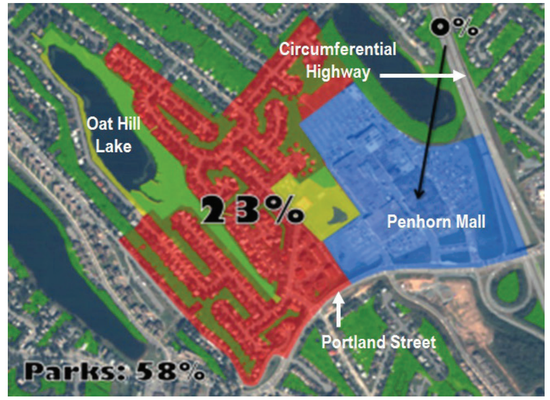


Figure 2. Percentage of Canopy Cove in Manor Park Residential Area (23%) & surrounding parks (58%) (Source HRM Urban Forest Master Plan 2013)

| Tree Species Selection | |
|---|---|
| **Scientific Name** | **Common Name** |
| Acer rubrum | Red Maple |
| Acer saccharum | Sugar Maple |
| Betula alleghaniensis | Yellow Birch |
| Liquidambar styraciflua | American Sweetgum |
| Liriodendron tulipifera | Tulip Tree |
| Maidenhair tree | Ginkgo |
| Quercus macrocarpa | Bur Oak |
| Quercus palustris | Pin Oak |
| Quercus rubra | Northern Red Oak |
| Tilia americana | American Basswood |
| Ulmus americana | American Elm |
| Picea mariana | Black Spruce |
| Picea rubens | Red Spruce |
| Pinus strobus | White Pine |
| Pinus resinosa | Red Pine |
| Thuja occidentalis | Eastern White Cedar |

The landscape plan for Penhorn development introduces turf lawns, planting beds, trees and stormwater wetlands and stormwater gardens surrounding the site. Most of the parking for the buildings has been located below the multi-unit buildings minimizing the coverage of onsite parking. In some places, parking podiums are located beyond the building footprint. In these areas, there would be at least 18" of cover for growing turf and any trees would be done in raised planters. The podium cover will be appropriate for lawns and shrub beds.

Stormwater gardens have been added to some of the curb bumpout areas around many of the new streets. These gardens would be depressed below the road surface allowing direct drainage into a bed of wetland plants and flood resistant trees.  A standpip would capture and direct overflows to the stormwater drainage network. We anticipate at least 3-4" of roof storage as well on all multi-unit buildings.

The AT greenway, located east of Blocks C and G, is made up of two weaving pathways that intersect, with planting beds in between, and runs north-south across the site connecting the Brownlow Park Soccer Field to the South to the Penhorn Lake Greenway to the east. Another main pedestrian connector would link the new development to the Metro Transit terminal at Penhorn. This pathway would include gardens and a tree lined canopy along its length.

A parking lot has been provided for access to Penhorn Lake on the east side of the site. The woodlot buffer adjacent to Penhorn lake north of the site is left intact with additional trees planted on the bordering edge of the site.

Depending on the final street cross section, we may include soil cells in the right-of-way to ensure the health of the street trees and provide a greater rooting medium for growing trees. The Penhorn Development Landscape Plan provides a wide range of urban street trees which are included in the urban forest master plan, with the overall goal of reaching the 20% cover within a few decades of the project being implemented.