

Proposal by the Middletown Urban Forestry Commission to plant a Microforest on the grounds of the Moody School

The Middletown Urban Forestry Commission's proposed microforest would create a small patch of forest on an existing mowed area. The work would involve planting about 100-150 seedlings of native tree and shrub species, applying compost and mulch, installing a temporary deer fence, posting a small 2' x 3' informational sign, and watering and maintaining the plants during the 1st two years. The project is entirely volunteer-led and uses donated plants and material and labor.

Location: Moody School (300 Country Club Road), southeast of the school on a corner of mowed lawn about 100 feet downslope from bus drop-off area pavement (see attached map, Figure 1).

Size and shape: the microforest would be approx. 60' x 60' (3,600 sf) or 0.08 acre. The shape would be square, or a more natural-looking rounded shape.

Plantings: Trees and shrubs would be spaced 2-1/2 to 5 feet on center (depending on the number of donated potted plants received) in rows, with 5 feet between rows to allow between-row mowing for weed suppression during the first two growing seasons. Plantings will include about 20 species of native trees and shrubs, such as oaks, hickories, maples, tupelo, elm, hackberry, sycamore, spicebush, nannyberry viburnum, and American euonymus.

Purpose: Microforests are also known as tiny forests, mini-forests or Miyawaki forests. The principles are based on methods that Japanese ecologist Dr. Akira Miyawaki (1928-2021) developed in the 1970s and 1980s. Microforests are being planted world-wide to provide the ecological benefits of a native forest, quickly, on a small, easily achievable scale. The project's location on school property is ideal for use as a teaching tool, giving students the ability to learn to identify common native trees and shrubs, and to observe real world examples of concepts in ecology, botany, agriculture, soil science, forestry, native vs invasive species, wildlife habitat, and the water and carbon cycles. Soil samples will be collected and tested to determine whether fertilizer or soil amendments are required. The standard Miyawaki method involves deep tilling and soil amendments using heavy machinery, especially on compacted/degraded sites. No deep tilling/heavy equipment will be used here because the existing soils should be adequate.

Microforest references for more information:

1. *Mini-Forest Revolution: Using the Miyawaki Method to Rapidly Rewild the World*, by Hannah Lewis. Published by Chelsea Green Publishing 2022.

2. New York Times article: *Tiny Forests With Big Benefits: Native plants crowded onto postage-stamp-size plots have been delivering environmental benefits around the world – and, increasingly, in the U.S.*, by Cara Buckley, August 24, 2023.

Figures:

Figure 1: Parcel Map showing Proposed Microforest Location

Figure 2: Google Earth Aerial Image Showing Proposed Microforest Location (2D)

Figure 3: Google Earth Aerial Image Showing Proposed Microforest Location (3D)

Figure 4: Rendering of Microforest Just After Planting

Figure 5: Rendering of Microforest 10 Years After Planting