



MONTGOMERY COLLEGE

Takoma Park/Silver Spring Campus
Catherine and Isiah Leggett Math and Science Building

Our Commitment to Sustainable Site Design

The College stands firmly committed to sustainable site design and environmental stewardship. As with past projects, MC intends to earn LEED certification for the Catherine and Isiah Leggett Math and Science Building. As a result, the project will enhance the tree canopy, protect the trees along Takoma Avenue, reduce impervious surfaces, and implement storm water management where none exists today, including rain gardens and bio-swales to help filter and slow storm water runoff. Taken together, all of these actions will improve air and water quality through natural storm water facilities and an environmentally sound, diverse, and lush landscape plan. The new landscape will also help the campus better fit in our neighborhood setting. These plans reflect the College's commitment to meet its environmental goals, comply with local and state ordinances, and be a good neighbor.

Overview

The College has demonstrated our commitment to the value of trees as vital elements of the environment on this Campus, as well as the Rockville and Germantown campuses. The Germantown Campus is home to 75 acres of trees protected by a Forest Conservation Easement Category I and a Forest Conservation Easement Category II that protects a champion chestnut tree. These easements protect more than 30 percent of the campus property in perpetuity. Trees are protected at the Rockville Campus by a forest conservation master plan, which protects existing trees and installs new trees with each construction project. The College continues its commitment on the Takoma Park/Silver Spring Campus by taking strong measures to protect existing trees and planting new trees in support of "Takoma Park's commitment to growing its canopy and helping address climate change."

TREE PROTECTION

- 23 trees in the park-like setting at the corner of Fenton Street and Takoma Avenue outside of the project boundary will be protected with tree protection fencing.
- 81 existing trees in and adjacent to the project boundary are to remain and will be protected.
- 3 specimen trees that are listed on the Tree Inventory and are outside of the project boundary will be protected.



- Protection of existing trees is regulated by the City of Takoma Park and Montgomery County.
- Installed tree protection will be inspected prior to construction start and will be inspected regularly by the City and the County.
- Other tree protection measures will be employed as appropriate, and as coordinated with the City of Takoma Park Urban Forester
 - Some examples of commonly approved tree protection measures include root pruning, mulch matting, and growth regulators
 - Underground utilities locations including storm water pipes have been selected to limit impacts to tree roots and minimize tree removal.

Any concerns raised related to tree protection will be addressed in cooperation with the City's Urban Forester. Please call our hotline at **800-879-9879** or email community@montgomerycollege.edu for any tree concerns.

TREES BY THE NUMBERS

Montgomery College will only remove trees that are absolutely necessary to construct the Catherine and Isiah Leggett Math and Science Building as designed through the community charrette process and approved through the Maryland National-Capital Park and Planning Commission Mandatory Referral process. Trees that are endangered by construction activities will be protected or removed per City and County guidelines. The College will protect the park-like setting at the corner of Takoma Avenue and Fenton Street as previously committed and will not remove any of the 23 trees from that area.

- **95** new trees will be planted as part of the project and will be larger than the minimum size required by the City's ordinance.
 - All of the trees will be native, disease and pest resistant.
 - Trees will be planted to nurture their growth and enhance the tree canopy.
 - Payments will be made to the City's Tree Fund to provide for additional plantings.
- **3** street trees in the public right-of-way that the City had previously removed will be replaced as part of the project.
- All 3 trees were in poor condition.
- The tree assessment was reviewed and approved by the Maryland National-Capital Parks and Planning Commission and the City of Takoma Park Urban Forester.



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- 57 trees of regulated size are included in the tree removal permit plan.
- 7 5/8" and larger trees are considered in the tree removal plan and are regulated by the City.
- 17 of those 57 trees are in poor or below average condition.
- 30 of those 57 trees are close in proximity to Falcon Hall, Science South, and tennis courts and need to be removed to accomplish the demolition work. The removal of these structures requires excavation work that extends beyond the footprint of those existing structures.
- 27 of those 57 trees are being removed for utility work, including the placement of stormwater pipes, and site work. Utility work and site grading go beyond the exact footprint of the site utilities for proper sub-grade work. The project site is small at three acres, and surrounded by existing buildings.

- 13 small trees of non-regulated size are included in the tree removal permit plan.
- 7 5/8" and smaller trees are not regulated by the City
- 3 of those 13 trees are in poor or below average condition.
- 5 of those 13 trees are close in proximity to Falcon Hall, Science South, and tennis courts.
- 8 of those 13 trees are being removed for utility and site work.
- All 23 trees in the park-like setting at the corner of Takoma Avenue and Fenton Street will be protected

**These numbers reflect the plan as of June 22, 2020. The College will update these numbers as plans evolve with guidance from the City.*

STORM WATER MANAGEMENT

The site design includes seven storm water facilities including rain gardens and bio-swales located near building entries and walks, with plantings designed to have a strong visual aesthetic, as well as to serve the function of filtering runoff. The storm water management bio retention facilities will filter and slow runoff and will specifically have a benefit to storm water absorption and habitat value and improve storm water management for the site and the neighborhood. New trees, tall ornamental grasses, spreading perennials and other plant life will be planted in and adjacent to these facilities, providing evergreen and flowering shrubs to expand seasonal interest.

NEW LANDSCAPE PLANTING

TREES

- 95 total new trees, along with plants, shrubs, and other landscaping outlined below.
- 23 total tree species are utilized to provide diversity throughout the site.
- 11 is the maximum percentage utilized of any single tree species.
- Tree size range is:
 - 2.5" caliper for single stem trees to 8-10' height for multi-stem trees
 - 18"-24" Ht./Spread is the size range of smaller shrubs.
 - 30"-36" Ht. /Spread is the size range of larger shrubs

**These numbers reflect the plan as of June 22, 2020. The College will update these numbers should the plans evolve with additional guidance from the City.*

NATIVE SPECIES

The College will replace all 57 trees of regulated size, 13 trees of unregulated size, and the 3 trees that the City of Takoma Park removed, and will plant 95 trees in their place. All trees selected, both Shade and Ornamental are native to the Mid-Atlantic for their ability to adapt to soils and climate of the region and are resistant to pests and disease in the region. The majority of shrub species selected are also native. Specific species were selected for their use in foundation planting and/or creating spaces. The majority of shrub species selected are also native. All of the plants used in the bio retention basins are native and provide a good mix of trees, shrubs, grasses, and perennials.

IMPROVED HABITAT

All shrubs selected provide good habitat value. Species such as Viburnum provide fruit for many native bird species. Likewise, the flower of Sweetspire is a great pollinator for bees and butterflies. Species such as Butterfly Weed are a great host plant for Monarch Butterflies, while Sweetspire, Goldenrod, and Red Twig Dogwood provide food sources for birds, bees, and other insects. Slopes around the basins are covered by low mounding shrubs and/or herbaceous groundcover. Overall, there will be an increased habitat value for insects and birds with the new landscape.





LANDSCAPE AESTHETICS

- **Along Fenton Street.** Shade tree species were selected for their upright branching and/or narrow canopy to prevent conflicts with pedestrians along the sidewalk or cars along the street.
- **Shade trees.** On the open lawn or planted areas, singular trees or ornamental trees in clusters will be planted to provide a variety of seasonal interest.
- **Seasonal interest.** One of the main goals of the planting design was to capture a wide variety of seasonal interest in tree selection. Fall colors range from yellow, red, burgundy, and orange, a variety of bark type (smooth, furrowed, exfoliating), as well as leaf type and flower are provided.
 - **Spring flowering.** Because color in the spring is often hard to provide in many planting designs, the native ornamental trees selected were selected for their spring flowering.
 - **Backdrop and winter interest.** Evergreen shrubs are used against the building foundations as hedges to provide a backdrop and winter interest against flowering deciduous massings in front.
 - **Deciduous shrubs.** As with the trees, the deciduous shrubs provide a variety of fall colors, flower types, and habits.
- **Shrubs.** Low, mounding shrubs are sited on slopes to spread and provide cover and erosion control. Larger, more upright shrubs are located closer to the building or as a specimen group in the landscape. In addition to their seasonal interest, shrub species selected have few, if any disease or pests concerns and are considered low maintenance.
- **Native species.** Plants used on the site complement and extend the palette's seasonal interest. The majority of them are Mid-Atlantic natives, species selected are a wide variety of textures and colors and serve as great sources of pollination for native bees, butterflies, and insects.