

### 6—Japanese Maple Row

Japanese maples, *Acer palmatum*, have been a highly prized cultivated tree dating back to the 7th century in Japan. Today, there are over 700 different cultivars of the Japanese maple, each with their own unique structure, leaf shape and color. Most of the cultivars are created by grafting. Grafting is a horticulture technique where a bud or scion (piece of a branch) of the desired tree species is attached to the rootstock of a compatible species. As the tree grows, the physical characteristics of the desired tree will show while the strength of the hardier rootstock helps provide support and nutrients. This allée of Japanese maples was used by PN as grafting stock because of their exquisite beauty. If you examine the shape of these trees you will notice that they've been pruned extensively over the years.



### 7—D&R Canal

This is the berm side of the D&R Canal's main stem. On the opposite side is the historic towpath where mule teams, hitched to canal boats, walked with their tenders. Boats of all types, including steam powered vessels, traveled the D&R. The canal was constructed between 1831-34 and stretches 44 miles from the outlet locks at Bordentown to New Brunswick. You are south of Lock #8 at Kingston, just shy of the 1/2 point on the 2-day trip from end to end. Scan the QR code for more information about the history of the D&R.



### 8—Turtles of the Canal

The calm, warm water of the canal provide excellent habitat for a variety of aquatic turtles. Take a look along the sides of the canal or logs in the water and you may see a few of these shelled creatures. Turtles are reptiles and require the heat from the sun to help regulate their body temperature. This gives them needed energy to search for food, escape predators or find a mate. Some common species of turtles you may see basking in the sun are the eastern painted turtle, red eared slider or red bellied turtles. Scan the QR code to access the NJ Fish and Wildlife Field Guide to Reptiles and Amphibians of NJ to help identify what turtles you may see in the canal.



### 9—Seed Beds & Mapleton Nursery

The land to your right was used by PN as its seed bed production area. The small yellow building in the distance was their Seed Department Work Building. In later years this area was sold to Princeton University who leased the land for many years to Mapleton Nurseries, a small wholesale nursery originally run by William Flemer Sr.'s great grandson Bill Flemer IV. The land will soon become state property to be preserved and interpreted as part of PN's historic cultural landscape.

### 10—Canal Basin

As you come around this body of water you will notice that it is part of the D&R Canal. At one time it was wider, larger and devoid of any plant growth. This was the Kingston boat basin located just south of lift lock #8. This was an area for boats to pull out of the main flow of traffic along the canal, deliver and load goods or turn around. Boat basins of varying sizes were provided at most of the main towns along the canal.

### 11—Lock #8 & The Kingston Canal House

In front of you is lock #8 and the lock/bridge tender's house at Kingston. When the canal opened there were 14 lift locks along its main stem. Locks enable a steady, even, calm flow of water for boat traffic. They are needed when there is an elevation change in the natural topography. All the locks along the D&R were altered after the canal closed. Scan the QR code to learn more about them. The canal company employee assigned to the locks and bridges were provided housing. This masonry canal house built in 1833-34 was home to several lock/bridge tender's assigned here at Kingston.



### 12—Reading the Forest Landscape

Take a look at the forest around you. Notice how the trees on the northside of the trail are of similar size and species and they are growing in rows. Natural forest succession does not work this way, so this is a sign of a man-made forest—a nursery area for trees grown and sold by PN. On the southside of the trail there is a line of osage orange trees; a tree that is known for its large, bumpy green fruit. This tree was often planted to create hedge rows to help delineate property lines, windbreaks or animal corrals. After PN relocated their operation to Allentown, NJ much of their tree stock was abandoned. As you explore the trails you may find many areas such as this—once cultivated nursery fields that have been left to revert back to nature.



# NURSERY TO CANAL HIKE

## SELF-GUIDED LOOP TRAIL

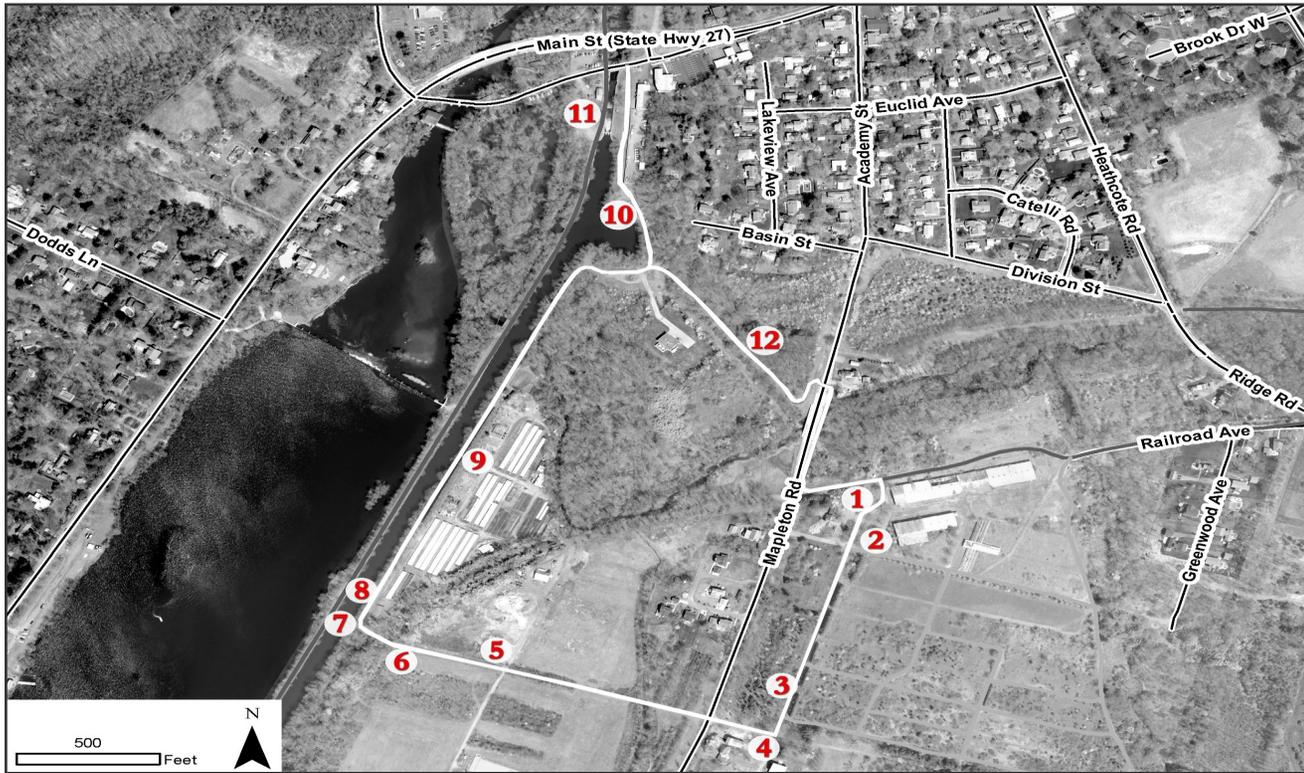


This leisurely 1-mile loop walk begins at the D&R Canal State Park Office in Kingston through a portion of the former Princeton Nurseries property towards and along the Delaware and Raritan Canal to the Kingston Canal House and back. We welcome you to enjoy this easy walk while learning a few interesting facts about the former nursery, some of its surviving plant stock and the canal as you follow the trail. Scan the QR codes for more detailed information about a few of the stops along the way.



**D&R CANAL STATE PARK**  
145 MAPLETON ROAD  
KINGSTON, NEW JERSEY





### 1—The Flanders and Princeton Nurseries (PN)

You are standing at what once was a profitable tree nursery that was founded in the early 20th century by William Flemer Sr. who began purchasing farmland here in 1913 as a branch to his F&F Nursery in Springfield, NJ. In its nearly 100 years of operation PN would grow to own 1500 acres of land that included production fields, original farm houses, offices, green houses, nursery outbuildings, barns and employee housing. Today just over 52 acres of the heart of its operations have been saved and are now known as “The Mapleton Preserve.” In front of you is the former PN office which now serves as the D&R Canal State Park’s Kingston office. The office building was constructed in 1918 by William Sr. and altered by his son William Jr. in 1960. It faces two surviving nursery structures—the large packing and storage building to the left and the “tree building/bare root storage” warehouse to the right. Beyond, and out of view, are the remains of the plant propagation house and 8 original greenhouses. Under the leadership of William Jr., and then his sons William III and John, the nursery grew and thrived to become one of the most renowned and innovative commercial nursery

operations in the country. In 1995 the Kingston facilities closed its doors and all operations moved to their expanded site in Allentown. Explore the property to find several waysides about the Flanders, PN Nursery structures, plant cultivars and its operations. Scan the QR code for more history about PN.



### 2—Ginkgo Biloba

The ginkgo tree is often referred to as a living fossil since its existence can be traced back over 250 million years ago. Ginkgo trees are a popular tree species to plant in urban areas since the trees are tolerant of air pollution, soil compaction and high temperature and is affect by very few disease or pests. Ginkgo’s are believed to help with a variety of health-related issues including helping to increase brain function, circulation and vision/eye health. The Ginkgo biloba extract can readily be found in pharmacies and health food stores. This tree before you is a PN cultivar named the “Princeton Sentry Ginkgo.” Notice how the tree grows in a columnar, upright form that is a perfect match for city streets with limited space.



### 3—Cultivars and the Princeton Elm



A cultivar—cultivated variety—is a plant that has been produced by artificial selection to ensure the plant exhibits a desired characteristic. Typically, cultivars are not able to produce seeds that would grow into to a plant exhibiting the characteristics of the parent tree. In order to grow additional cultivars plants require vegetative propagation (grafting or cuttings). The Princeton Elm is one of the more well known cultivars developed during William Flemer Jr.’s tenure. The tree cultivar was originally propagated for its beautiful form, but proved to be resistant to Dutch elm disease. In the 1930s the disease killed off the American elms that had lined roads across the country and in forests. Today an elegant allée of surviving Princeton Elms (from PN and planted in the 1920s) stand along both sides of Washington Road serve as a welcome entrance to Princeton University.

### 4—Shennard House/Employee Housing

William Flemer Sr.’s initial land purchases consisted of several existing contiguous properties—the Myrick, Higgins and Van Dyke farms. Other properties would follow but in all cases the farmhouses, barns and outbuildings were retained, put to use and all houses were painted yellow with white trim to mark them as PN owned structures. Farmhouses, like the one here, were provided as onsite housing for nursery employees. This house, now privately owned, was occupied by nursery superintendents over the years and the Shennard family in the last years of business operations in Kingston. East of the Shennard House an onsite workers dormitory was built, complete with swimming pool for the nursery’s seasonal staff—primarily laborers from Puerto Rico recruited by the Flanders through the NJ’s Glassboro Service Association program.

### 5—Bluebird Boxes/Habitat



The Friends of Princeton Nursery Lands installed and monitors the eastern bluebird boxes in these former production fields of PN. Bluebirds, while not an endangered or threatened species, often have difficulty finding suitable nesting areas due to loss of habitat and competition. Notice how there are two boxes placed nearby to each other, this strategy is done to help alleviate competition with another abundant bird in the area—Tree Swallows. If a pair of tree swallows take up residence in one of the boxes, they will not allow another pair of swallows to nest so close BUT they will tolerate bluebirds as their neighbors.