Restoring and Revitalizing the C&O Canal National Historical Park in Georgetown

By Alison Greenberg, Executive Director, Georgetown Heritage

A major revitalization is underway at the C&O (Chesapeake and Ohio) Canal National Historical Park through Georgetown — one of the neighborhood’s most defining sites.

Our community nonprofit, Georgetown Heritage, formed a dynamic partnership with the National Park Service (NPS), with support from the D.C. government and the Georgetown Business Improvement District (BID), to repair, restore and rejuvenate the Canal that runs through Georgetown.

Once a driver of commerce and industry, and preserved as a park by citizen action, this portion of the Canal has fallen into disrepair. Together, we’re working to raise awareness of the need to restore this important historic treasure so it can continue to enrich the lives of residents and visitors alike for generations to come.

I’m proud to play a role in this worthy initiative and am looking forward to sharing its progress with you over the coming months.

What Lies in Store for the Canal?

It’s an exciting time to consider all the ways we can improve and enhance the Canal. Georgetown Heritage, along with its partners, is committed to turning these opportunities into reality.

We’ve engaged landscape architect James Corner Field Operations to work with us to envision and design a multi-year imaginative plan — design concepts to be released this October — focused on rejuvenating and amplifying the different landscapes that make up this mile-long section of the Canal.

These landscapes are distinct zones along the one-mile stretch, each encapsulating a unique mood and setting. From east to west, they include:

- **Mile Marker Zero** — the starting point for the entire C&O Canal. Often referred to as the Water Gate, this was the original intersection point between the Washington City Canal and the Potomac River, and is where boats made the connection to other canals in Washington.

- **The Rock Creek Confluence** — where the Canal meets Rock Creek, with lush vegetation, wildlife and remnants of wooden pilings just below the water’s surface.

- **The Locks** — one of the most interesting and complex portions of the Canal because of its architecture, open space, and four functioning locks. These locks are responsible for raising and lowering the park’s full-sized replica canal boat, enabling it to transport passengers up and downstream.

- **The Grove** — this is the most shaded area of the Canal. There are small leaf lindens near Lock 4, a princess tree (Paulownia) between 31st Street and Wisconsin Avenue, as well as a tree of heaven (Ailanthus) and a weeping willow, all of which contribute to the cultural landscape.
• The Walls — so called because of this area’s canyon-like quality, with tall, textured walls and deep chasm appearance.

• The Gardens — a distinctively quiet and residential area along the Canal, remarkable for its terraced stone walls with cascading vegetation.

• Fish Market Square — this area once operated as part of the Georgetown Market House (now Dean & DeLuca), receiving fresh fish from the waterfront wharves. Today the pedestrian bridge here is one of the busiest canal crossings.

• The Aqueduct — a remnant of a massive river structure across the Potomac, built between 1833 and 1843 to connect the C&O Canal to the Alexandria Canal. This gathering spot offers extraordinary 360-degree views. It sits beside the Key Bridge underpass, where light reflects off the water onto the underside of the bridge arches, and the towpath widens and continues west out of Washington.

To realize the full potential of these areas, we’re considering ways to incorporate elements like art, learning zones, entertainment, leisure and ecology with expanded opportunities for interpretative, educational and cultural programming. We want to remove non-native plant species and make improvements to the foundation, lighting, access, signage and overall safety. We also want to embrace ideas that celebrate what the Canal is and can be. Our goal is to pay homage to the true spirit and history of the Canal and surrounding neighborhood, and to explore the best ways to enhance the Canal experience.

One highlight will be the building and launching of a new interpretive replica Canal boat to replace the “Georgetown” — the popular and beloved mule-drawn vessel that operated from 1983 to 2011.

And as Georgetown residents and visitors can see, a number of structures along the nearly two-century-old Canal need repair and stabilization. That is first priority for the Canal partnership — and work is already underway.

**What’s Happening Now**

NPS is committing more than $6.5 million to the Canal’s rehabilitation, and began work on November 14, 2016 at Canal Locks 3 and 4, near Thomas Jefferson Street just south of M Street.

Why are Locks 3 and 4 the first priority? **Joseph Reed**, civil engineer for the C&O Canal National Historical Park, offered several reasons.

Stability is a key concern, Reed explained. He said that while locks typically measure 15 feet wide, Lock 3’s stone walls measured just more than 13 feet across in 2011. And due to the poor foundation conditions, they were moving inward by almost a quarter of an inch each year between 2004 and 2011.
One reason for the instability is the soft sediment underneath. Another factor is the lock’s 186-year-old timber foundation that has become susceptible to rot. The original wooden structure was designed to be continuously submerged and water-loggged. But because NPS has been de-watering the Canal more often, the materials have been increasingly exposed to air. This is causing the wood to rot from within, which compromises the structural integrity of the walls and could endanger nearby properties.

“Whenever you see that much movement in a wall that’s been there since 1831, that’s a cause for concern,” Reed said. “We had to take action for a variety of reasons, like improving public safety, protecting adjacent private properties, repairing a primary park resource and responding to requests to restore operations of the park’s interpretive boat program.”

The rehabilitation team is replacing the original timber foundation with concrete, being careful to keep as many of the original building materials as possible.

“We’re reusing as many of the historic pieces as possible, while making it a solid and resilient structure for many years to come,” Reed explained. “Where reuse of the original stone is not possible, we’re sourcing new sandstone from a quarry in western Pennsylvania.”

Lock 4 was built on solid bedrock — not sediment — so it’s inherently more stable than Lock 3. But preserving Lock 4 is critical; it plays an integral role in the park’s interpretive boat program, in which visitors can experience first-hand “locking through” and riding along as the lock fills with water and lifts the boat eight feet in elevation.

“The main goal was to preserve Lock 4, make it more water-tight, and [make it] overall more resilient to better serve that program,” Reed said. He added that the team will also replace the aging wooden lock gates. Opening and closing those gates allows the water levels to be raised and lowered.

Reed and the team are accomplishing this without access to any of the original construction plans. Although the same company built Locks 1 through 4, no historic illustrations are available. Instead, NPS’s engineering team is drawing from its experience with similar historic projects, knowledge of specifications from the era just after these locks were constructed and an ability to combine technical expertise with a holistic historical perspective.

Reed elaborated on some of the challenges involved in the project. The worksite is in the middle of an extremely active neighborhood. Georgetown is a thriving shopping and dining destination with a high residential population, which includes much of the Georgetown University community. Consequently, the crew must be careful as it works adjacent to utilities and under bridges that are in active daily use. It must also be mindful of the site’s natural resources and is taking care not to cause erosion or pollute the site in any way.

“We need to respect these unique historic and cultural resources, and make this portion of the canal solid and resilient for years to come,” Reed said.

When I asked if they’ve encountered any surprises so far, Reed answered, “Well, it’s intriguing to see how they did things back in the day. The size of the stones is one thing, for example. How did they move them? And since Lock 3 is really being built from the ground up, we’re finding that the walls are deeper
than we expected. This makes sense when you consider that these were the first places they did work and were located closer to the quarries.”

Reed continued, “The National Park Service is pleased to team with Georgetown Heritage to bring the Georgetown Canal Plan ‘to life’ and do our part to restore and revitalize this amazing historical treasure. It’s a vital part of the community and provides unparalleled learning and enjoyment opportunities — it’s truly a ‘jewel’ of Georgetown.”

And at Georgetown Heritage, we’re excited, too! I’ll be posting updates on other phases of the Canal Plan as they begin. I invite you to join the conversation!