11th Street Bridge Park

October 6, 2022
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The 11th Street Bridge Park project seeks to reuse the existing infrastructure from the old 11th Street bridge and create an urban destination and park south of the local 11th Street bridge over the Anacostia River. Through the input of the community, Building Bridges Across the River and the Office of Planning (in coordination with DDOT) developed the main programming of the bridge park, which includes: Amphitheater, Café, Central Plaza and Environmental Education Center.

Beyond the programming, the project is focused on the success of four goals. These goals include:

- Economic – Serve as an anchor for inclusive economic opportunity
- Environment – Re-engage residents with the Anacostia River
- Health – Improve public health disparities
- Social – Reconnect Communities

The project team has had roughly 1,000 meetings involving the community, NPS, MPD, DC Fire Department, MCPC, CFA, SHPO, USACE, USCG and various other government agencies leading up to and during the preliminary design process of the project. This is to ensure the project meets the needs of all the stakeholders involved within the project.
Proposed Bridge Park

Site Context
The proposed bride park is located in Washington DC adjacent to the 11th Street local bridge. The park will serve as an area of interest for DC residents and visitors, but also as a device to bridge the gap between of the two connecting wards. The site is characterized as urban with the majority of the commercial development to the northern end of the project and the Anacostia Park on the southern end. The waterway beneath the proposed bridge park is the Anacostia River.

The Navy Yard, O Street and the Anacostia Riverwalk Trail bound the project on the north. The Anacostia Park, Anacostia Drive and the Anacostia Riverwalk Trail bound the project on the southern end. The 11th Street local bridge will be directly adjacent to the project on the upstream side of the bridge, but the difference in elevation will provide a separation from the primarily vehicular bridge.

The proposed Bridge Park will retrofit the existing piers, which were built in 1964. Piers 12 and 13 were more recently updated with pedestrian overlooks in 2013. The 11th Street local bridge was recently constructed in 2012, along with the bridges for I-695 (Southeast Freeway).

The project proposed 1.2 acres of land improvements on the Navy Yard side and 5.5 acres of land improvements on the Anacostia Park side. Improvements include trails, greenspace, hardscape, a two-story building and a kayak and canoe launch.
Our design for the 11th Street Bridge Park is a place of exchange. The Bridge Park will connect two historically disparate sides of the river with a series of outdoor programmed spaces and active zones that will provide an engaging place hovering above, yet anchored in, the Anacostia River. To create this place-more destination than elevated thoroughfare-we have designed the Bridge Park as a clear moment of intersection where two sides of the river converge and coexist. The 11th Street Bridge Park will offer layered programs, presenting a new neighborhood park, an after-hours destination for the nearby workforce, a retreat for residents and a territory for tourists to explore.

Paths from each side of the river operate as springboards-sloped ramps that elevate visitors to maximized look out points to landmarks in either direction. Extending over the river, the Anacostia paths join to form a loop, embracing the path from the Navy Yard side and linking the opposing banks in a single gesture. The resulting form of the bridge creates an iconic encounter, an "X" instantly recognizable as a new image for the river.

While the bridge is a unique and iconic structure, its character and essence are rooted in making this river landscape accessible to the community. Through programmed activities the bridge will showcase the region’s unique cultural and natural history. To encourage visitors to spend time on the bridge and neighboring communities throughout the year, amenities for comfort and refreshment (restrooms and food), mitigation of climate extremes (shade and warmth), and opportunities for seasonal programming are provided as well as a balance between passive and active spaces along the entire length of the bridge. The bridge provides a gateway to events with strong roots in the adjacent communities.
The paths also form elevated platforms on a 4.76% slope with views to the Anacostia River, the activities on the bridge, and prominent landmarks within the District’s historic core and Anacostia. These platforms simultaneously provide shade and shelter for the café on the southeast side and the hammock grove on the northwest side.

The activated zones and multiple levels of the bridge park also bring visitors down to the river itself. A series of voids along the bridge provide spaces for play and access down to the river. The café is integrated into the body of the bridge, creating intimate zones with views to the waters below. The performance space is located on terra firma and provides uninterrupted views of the Anacostia River. Together, these areas allow visitors to engage the river from multiple vantage points, from above to take in its majesty, or engaging with the waters for boating and recreation.

Throughout final design we have maintained the original concept and program of the bridge. Adjustments to the design through final engineering have maintained the vision of the park, a place of exchange where the integration of architecture, landscape and infrastructure allows for the creation of a socially sustainable civic experience. The proposed bridge includes two separate locations of land improvement. On the Navy Yard side, the project repurposes 1.2 acres of trail and grass area. The park transforms the current lot into two areas of engagement both on and off the bridge. Visitors will have the opportunity to continue along the Anacostia Riverwalk Trail adjacent and under the bridge, or experience the proposed walkway onto the bridge. This new walkway includes a shaded pathway as well as interactive spaces leading up and onto the bridge. The Anacostia Park side develops approximately 5.5 acres of existing park land into a more engaging area, with additional pathway to the bridge and more laid out terrain for park use. In addition, the two story Environmental Education Center is proposed on this lot, which will bring students to the area to learn about the Anacostia River and history of the area. To inspire people to engage with the Anacostia River, a kayak and canoe launch is proposed adjacent to the existing Anacostia Riverwalk Trail.
The project team has progressed the preliminary design to final design during this phase of the project. This phase puts final detail on all aspects of the project. Through meetings with key stakeholders during this phase, key components have been modified to meet the facility needs, as well as provide a safer feel to the surrounding businesses. The coordination with the Navy was to help mitigate their concerns of the new viewshed the Capitol Overlook provided visitors to the park onto their property. Proposed sight mitigation and safety restraints were presented to the Navy on December 12. This meeting provided a resolution of higher glass walls at the Capitol Overlook.

NEPA documentation for this project has been completed. The NEPA documentation includes the following:
- Federal Highway – Re-evaluation of FINAL EIS of the 11th Street Bridges
- NPS – Categorical Exclusion for Land Transfer
- DDOT – Wetland Delineation Report (including Natural Resources – Anacostia River)
- DC SHPO – Historical Preservation (Historic Seawall Anacostia Park)

Through the NEPA Process, the design team coordinated with over 30 jurisdictional agencies, including in person meetings with FHWA, USACE, USCG, and the Navy. In addition to meeting with jurisdictional agencies, a public meeting was held at Anacostia High School on September 25, 2019 to provide a project update to Wards 6 and 8. The meeting offered a comment response portion, in which, attendees were given the opportunity to ask questions. After the Q&A portion, the design team offered a one-on-one breakout session to the attendees for a more personal approach to ask questions on the design.

The following are the required permitting the project:
- Section 401 Water Quality Certification (DOEE)
- Section 404/Section 10 Rivers and Harbors Act Permits (USACE)
- Bridge Permit/ Section 9 Rivers and Harbors Act (ASCG)
- US Coast Guard Permit
- DCRA Building Permit
- DOEE SWM Permit

The next steps of the project include the following:
- Complete Final Design – September 2022
- Bid – December 2022
- Begin Construction – Summer 2023
  - 2.5 year construction duration
11th Street Bridge Park Programming – Roof Plan

- Capitol Lookout
- Anacostia Lookout
- Central Plaza
- Great Lawn
- River Amphitheater
11th Street Bridge Park Programming – Deck Plan
Proposed 11th Street Bridge Park – Elevation View
Proposed 11th Street Bridge Park Elevation View
Proposed 11\textsuperscript{th} Street Bridge Park – Capitol Overlook
Proposed 11th Street Bridge Park – Anacostia Overlook
The 11th Street Bridge Park is a layered landscape that brings people together with the environment and acts as an ambassador for stewardship of the Anacostia River and the natural world as a whole. Each area of the bridge has an educational component that speaks to the restoration and outreach work of the Anacostia Watershed Society, the importance of urban agriculture in food security, and the role of green infrastructure in the built environment.

At the entrance to the Bridge Park from Historic Anacostia, visitors first encounter restored native landscape types including a riparian meadow consisting of wildflowers and forbs reflective of the plant community that once existed in the floodplain on the banks of the Anacostia River. The play space weaves native plants with the play elements and uses native riparian tree species to create shade. Above the café a lawn invites visitors to stop and take in the panoramic views of the river and the city beyond, providing opportunities for learning about the role of green roofs in mitigating the negative impacts that urban runoff has on the river. A rooftop farm is located on the roof of the Central Utility Plant connecting the “Bridge Park Plots” urban agriculture program with the food that is served in the café, made using produce from these plots. The hammock and picnic grove uses native species to create a forest-like environment that highlights the calming power of plants as well as the importance of trees in reducing heat island effect and restoring hydrological systems. The river garden near the Capitol Riverfront is a demonstration of native, riparian and aquatic plants of the Anacostia river. This garden will showcase plant communities that are being restored through the efforts of Anacostia Watershed Society and will be a place that can be used as a formal and informal environmental education tool.
The plant palette consists of native plants that reflect the local ecology and highlight the beauty of riparian plant communities through the seasons.

**Trees:**
The trees are selected to create a dynamic landscape that celebrates the changing of the seasons and for their ability to provide the shade that is so necessary for making comfortable spaces in this region. At the entrances to the Bridge Park there is an opportunity to plant large hardwood trees on terra-firma, such as the Chinkapin Oak, that reflect the upland forests of the region. In the play space, red maples create shade while understory trees, such as serviceberry, provide an early spring show of flowers that turn into edible berries. The hammock and picnic grove ties to the play space with use the red maples. The Red Maple is a common riparian tree species with a shallow root system that makes it a good candidate for use over structure while providing shade and multi-seasonal interest. At the river gardens Bald Cypress grow out of the aquatic plant beds, providing shade and fall color while highlighting the unique ability of this native species to thrive in the saturated soils of the river banks.
Meadow:
The meadow at the bridge landing near Historic Anacostia is a rich plant community that supports many ecological functions and is a highly dynamic landscape that highlights the changing of the seasons. Once established, a meadow is a low maintenance landscape, requiring mowing only once every other year to suppress woody plants and cool season grasses. As a native plant community, meadows are adapted to the climate of the region and do not have irrigation demands the way lawns or other kinds of ornamental plant beds do. For very little input, meadows provide an incredible amount of color and beauty, as well as provide food and habitat for pollinating insects and a wide range of birds and other wildlife. This meadow is envisioned as an informal outdoor learning space to be used by the Anacostia Watershed Society and others as a teaching tool.

Plant Palette

PLANT PALETTE
Full Sun Meadow Mix

- Perennial Sunflower
- Black-Eyed Susan
- White Coneflower
- Purple Coneflower
- Prairie Plains Coreopsis
- Missouri Primrose
- Eastern Blazing Star
- Indian Blanket
- Bishop's Flower
- Blue Grass Sage
- Little Bluestem
- Switch Grass
- Eulalia Grass
- Switch Grass
Riparian Area and Rain Garden Planting:

The Bridge Park is an incredible opportunity to teach about the ecology of the river. Planting native riparian species at the water’s edge helps to restore the river ecology and bring back some of the fauna that once lived here as well as highlighting the natural beauty and dynamic quality of the natural river bank. At the river garden, aquatic species are arranged in a demonstration showing which plant species can be found at different depths of water. This demonstration is tied to the restoration efforts of the Anacostia Watershed Society along the length river and brings a larger awareness to the importance of the work they are doing.
The proposed café is a 1-story structure located between the two decks of the 11th Street Bridge Park. The structure is being built between the two decks of the proposed bridge. The proposed structure includes public restrooms, community room, kitchen, dining room and covered porch. Adjacent to the café are the Bridge Park storage room and trash room.

The proposed exterior materiality of the café and covered porch include the following:

- **Structure** – white and grey painted steel
- **Façade** – FRP grating over fiber cement and galvanized steel frame and cladding
- **Glazing** – Low iron 1” glass IGU
- **Deck** – Modified wood
- **Ceiling** – Acoustic wood panels

Adjacent to the café:
- **Pathways** – Concrete pavers with metal cover
- **Handrail** – Galvanized steel grating
The proposed Environmental Education Center (EEC) is a 2-story structure located on terra firma, which connects to the bridge structure. The proposed structure includes facilities for the Anacostia Watershed Society (classrooms, offices, restroom and pantry) on the first floor. The second floor will consist of Bridge Park offices, Park Ranger offices, and private and public restrooms.

The proposed exterior materiality of the EEC includes the following:

- Structure – Exposed concrete
- Façade – FRP grating over fiber cement and galvanized steel frame and cladding
- Glazing – Low iron 1” glass IGU
- Roof – Zinc with PV panels

Adjacent to the EEC:
- Pathways – Concrete pavers with metal cover
- Handrail – Galvanized steel grating

The proposed interior materiality of the EEC includes the following:

- Flex Hall
  - Floor – Colored epoxy flooring and stainless-steel entrance grille
  - Structure – Exposed COS concrete
  - Wall – Wood veneer cherry and print on acoustic felt
  - Frames – Aluminum and galvanized Steel
  - Ceiling – Perforated gypsum pink and perforated wood panel – cherry

- Classrooms
  - Floor – Colored epoxy flooring
  - Structure – Exposed COS Concrete
  - Wall – Veneer oak of cherry and stainless-steel back splash
  - Ceiling – Painted open ceiling
Proposed Environmental Education Center
Proposed Environmental Education Center

EEC - Elevations

East Elevation

North Elevation

West Elevation
Proposed Environmental Education Center
Proposed Central Utility Plant

The proposed Central Utility Plant is a 1-story structure located on terra firma located adjacent to the Environmental Education Center. The proposed structure includes a fire pump, cooling tower, mechanical and storage rooms. The roof of this building will be used for urban agriculture for the Bridge Park.

The proposed exterior materiality of the EEC includes the following:

- **Façade** – Galvanized steel grating and galvanized steel cladding
- **Guardrail** – FRP posts
- **Roof** – Concrete pavers
- **Adjacent to the EEC:**
  - Pathways – Concrete pavers with metal cover
Proposed Central Utility Plant

Central Utility Plan - Elevations and section

West Elevation

North Elevation

South Elevation

Long Section
Proposed Railing

Type A - Anacostia Look Out

Type B - Navy Yard Look Out

Handrail

Type A2 - Tall curb + guardail

Type B2 - EMS Path

A - Vertical accent

B - Horizontal accent

Guardrail - Design Principle
The 11th Street Bridge Park proposed bridge materiality will include a variety of concrete pavers that differentiate pathways and destinations on the Bridge Park, but also interlock the pathways with a feel of uniformity. The proposed concrete pavers will use three shades of grey for the pathways. These options vary from light to dark. The pavers also vary in size. The proposed paver options include:

- **Light Grey – 6”x12”x2.5” –** Stepstone, Narrow Modular Paver, Porcelain w/ Slag, Light Sandblast
- **Light Grey – 12”x48”x2.5” –** Stepstone, Large Scale CalArc Paver, Porcelain w/ Slag, Light Sandblast
- **Medium Grey – 6”x12”x4” –** Stepstone, Narrow Modular Paver, French Gray w/ Slag, Light Sandblast
- **Medium Grey in Rougher Finish – 12”x48”x2.5” –** Stepstone, Large Scale CalAac Paver, French Gray w/ Slag, Heavy Sandblast
- **Medium Grey – 12”x48”x2.5” –** Stepstone, Large Scale CalArc Paver, French Gray w/ Slag, Light Sandblast
- **Dark Grey – 12”x12”x3” –** Hanover, Prest Paver, Matric #148

In addition to the concrete pavers, the existing Anacostia Riverwalk Trail on the Navy Yard side of the project will be asphalt pavement, to replace with what is inkind today.

Areas where plantings require walls for grade separation, concrete and corten walls are being used.
Storm Water Management

Below Grade Cistern
- Captures overflow from planted areas and helps capture water for irrigation

Aquatic Plants
- Filters waste in river and removes floating debris

Rooting Volumes
- Planting brightens up the area and cleanses water from adjacent paved areas

Green Roof
- Captures water from adjacent paved areas

Photovoltaic Roof
- Captures water from adjacent paved areas

Rain Gardens
- Captures water from adjacent paved areas

Below Grade Cistern
- Catches water from adjacent paved areas

Pipe System
- Pipe channels water from paved areas and directs to cistern

Meadow Planting
- Reduces runoff, increases filtration and provides habitat

Water Jets
- Collects rainwater from adjacent areas, reduces puddles and enhances permeability

Bio-Retention Area
- Collects rain and run-off from adjacent areas, stores and filters and allows for infiltration
The project team has continued coordination with DC SHPO for the duration of the project. Additionally, DC SHPO commented on the 65% Plan Submission reiterating there is "no adverse effect" on the project site from the proposed design of the project.

The design team has identified two endangered or threatened species within the project area. These include northern long-eared bat (myotis septentrionalis) and Atlantic sturgeon. For both of these species, it has been concluded that the proposed project is not likely to adversely affect them.

There are impacts to existing viewsheds from the project, but the improvements maintain or enhance the existing conditions. The existing conditions provide two overlooks are piers 12 and 13. The proposed Bridge Park will provide two overlooks. The first is the Capitol Overlook, which is located on the northside of the park. The second is the Anacostia Overlook, which is located on the southside of the park. Both overlooks are on the upper deck of the Bridge Park. These overlooks are at a higher elevation and provide a better view, compared to existing conditions, for visitors of the park. The third key point of viewshed on the bridge is located at the Central Plaza. Here, the Bridge Park provides a much larger viewing area at a higher elevation than the existing overlooks. Finally, within Anacostia Park, at the highest elevation of the project, the park provides a view of downtown DC. The proposed modifications to the park will provide a clearer view of the city, by shifting tree plantings away from the river into a more centralized location on the park.
Existing conditions for the project site show the 100 year floodplain elevation at 11’ and the 500 year floodplain elevation at 14.2’. The layout of the bridge places the Environmental Education Center (EEC) within close proximity of the Anacostia River. The finish floor elevation of the EEC is proposed at elevation 12.0, which places it 1 foot above the 100 Year Floodplain.
**Lighting**

**Bridge Accent** – A continuous linear LED luminaire will be mounted to the bottom of the bridge deck on the upper and lower levels to light a portion of the structure emphasizing the bridge form. Luminaire mounting will be detailed for maximum integration and reduced view of the light source. The LED source will have color changing variations (RGBW) for dynamic colors and white light. Present scenes will be set through a control system for regular and special events.

**Open Paths** – Low light bollards with a shielded light source will light the horizontal surface along paths. The design intent is to avoid light poles in open paths. The fixture selected has a maximum of 10% up light associated with its optic to contribute to vertical illumination and focus lighting on paths below.

**Covered Paths** – Primary light will be provided by directional luminaires mounted to structural beams above to concentrate lighting on stairs, paths and features. Shielding such as louvers and shrouds will be used to reduce glare and shield direct view of light source.

**Paths with handrails** – Primary light will be provided by continuous LED linear lighting integrated into the handrail. Primary public entrances will be highlighted, as will wayfinding and building information.

**Stairs at Landscape Approaches to Bridge** – Ambient light will be provided by continuous LED linear lighting integrated into the handrail where applicable as well as linear lighting integrated in the landscape seat and stair to light risers and treads. Primary public entrances will be highlighted, as well wayfinding and building information.

**Stairs on Pedestrian Bridge** – Ambient light will be provided by fixtures mounted to the structure above. This will allow for aiming abilities to help concentrate the lighting on the desired areas. Shielding such as louvers and shrouds will be used to reduce glare and shield direct view of light source.

**Plazas** – Ambient lighting will be provided by recessed in ground paver luminaires utilizing fiber optic or LED light sources. Additional light will be integrated into seating or benches. Lighting will be designed to accent features within the plaza.

**Landscape Features** – Special landscape or architectural features such as building façade, fountains, vegetation and/or benches will have accent lighting. Possible luminaire types include deck mounted, building mounted, pole mounted, ground mounted, and those integrated into outdoor furniture or landscape features. LED light sources will be provided for ease of maintenance.
11th Street Bridge Park Lighting – Navy Yard Approach and Hammock Grove
11th Street Bridge Park Lighting – Central Plaza and Great Lawn

Fixture types

1. Specified Bega Bollard

2. Interlux Rubber - Uplight at Planters
11th Street Bridge Park Lighting – Play Space and Environmental Education Center
Wayfinding Signage

The design approach for the Bridge Park is to provide a sense of place through wayfinding signage. A successful wayfinding signage package adheres to a set of sign design parameters and guidelines. In addition, the wayfinding signage package identifies a sign hierarchy and sign family that delivers a cohesive, intuitive, and accessible wayfinding signage system for destinations on and adjacent to the 11th Street Bridge. Each destination is assigned a value according to the Destination Matrix and each value will inform the signage type and representation each destination will receive. The development of a signage menu provides a visual representation of the custom wayfinding signage package for the project.

<table>
<thead>
<tr>
<th>Tier 1 Destinations</th>
<th>Potential Icon(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Plaza</td>
<td>Viewing Area</td>
</tr>
<tr>
<td>Capitol Lookout</td>
<td>Canoeing</td>
</tr>
<tr>
<td>Kayak and Canoe Launch</td>
<td>View Area</td>
</tr>
<tr>
<td>Anacostia Lookout</td>
<td>View Area</td>
</tr>
<tr>
<td>Environmental Education Center</td>
<td>Restrooms, First Aid, Info</td>
</tr>
<tr>
<td>River Amphitheater</td>
<td>Amphitheater</td>
</tr>
<tr>
<td>Cafe/Community Room</td>
<td>Restaurant/Food, Restroom</td>
</tr>
<tr>
<td>Anacostia Riverwalk Trail (outside park as existing)</td>
<td>Bike Trail, Hike</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tier 2 Destinations</th>
<th>Potential Icon(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hammock Grove</td>
<td>Playground</td>
</tr>
<tr>
<td>Mussel Beach Play Area</td>
<td>Playground</td>
</tr>
<tr>
<td>Great Lawn</td>
<td>Picnic Site</td>
</tr>
<tr>
<td>Ranger/Park Offices</td>
<td>Restrooms, Info, First Aid</td>
</tr>
<tr>
<td>Navy Yard</td>
<td>Info</td>
</tr>
<tr>
<td>Urban Agriculture</td>
<td></td>
</tr>
</tbody>
</table>
Wayfinding Signage

**ASSETS**
- Logo
- Bridge Icon

**PICTOGRAMS**
- Restrooms
- Parking
- First Aid
- Drinking Water
- Food/Cafe
- Playground
- Viewing Area
- Ranger/Police
- Information
- Canceling
- Bicyclist
- Pedestrian
- Amphitheater
- Symbol of Access
- Regulatory Icons
- Restrictions

**COLOR PALETTE**
- Primary Color Palette
- Secondary Color Palette

**COLOR PALETTE EXAMPLES**

**TYPOLOGY**
- Headlines: Monserrat Bold Title Case
- Subheadings & Body Copy: Monserrat Regular Sentence Regular

**ARROW GRAPHIC**

**ACCESSIBILITY**
- Braille & Visual Impairments
- Language Barriers
- QR Code/Smartphone
- Audible

**SIGN 1**
- Park 1D Monument

**SIGN 2**
- Entrance, Kiosk, and Directional

**SIGN 3**
- Rules/Etiquette

**SIGN 4**
- Directional

**SIGN 5**
- Wall Mounted Pictogram

**SIGN 6**
- Sidewalk Medallion

**SIGN 7**
- Wall Mounted Kiosk

**SIGN 8**
- Wall Mounted Rules/Etiquette
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