

STAFF RECOMMENDATION

D. Sullivan

NCPC File No. 6951/6955



11TH STREET BRIDGE REPLACEMENT PROJECT AND RELATED TRANSFER OF JURISDICTION OF A PORTION OF RESERVATION 343D

Southeast
Washington, D.C.

Submitted by the District Department of Transportation and the National Park Service

August 27, 2009

Abstract

The District Department of Transportation (DDOT), in coordination with the Federal Highway Administration (FHWA), has submitted a concept design for the 11th Street Bridge project. The purpose of the project is to improve the highway connection between the Southeast/Southwest Freeway (I-695) and the Anacostia Freeway (I-295) in Southeast Washington, D.C. The project would replace the 40-year-old pair of bridges across the Anacostia River and provide safety enhancements to the bridge and approach ramp structures. In order to accommodate new ramp configurations for the project, the National Park Service proposes to transfer jurisdiction of approximately 1.5 acres of Reservation 343D (Anacostia Park) in Washington, D.C. The portion of Reservation 343D that is proposed for jurisdictional transfer is located adjacent to the existing upstream bridge on the east side of the river in Anacostia Park in between Anacostia Drive, SE and the Anacostia Freeway. The underlying land will remain titled in the United States.

Commission Action Requested by Applicant

Approval of approval of transfer of jurisdiction pursuant to 40 U.S.C. § 8124(a) and approval of comments on concept design pursuant to 40 U.S.C. § 8722(b)(1).

Executive Director's Recommendation

The Commission:

Approves the transfer of jurisdiction of approximately 1.5 acres of Reservation 343D (Anacostia Park) to the District of Columbia government for transportation purposes as shown on NCPC Map File No. 8.10(63.00)42815.

Supports the bridge replacement project because it improves local multi-modal connections and repairs aging infrastructure; however, the Commission also continues to support the future removal of barriers such as the Southeast/Southwest Freeway (Interstate 695) in accordance with the Comprehensive Plan for the National Capital (National Capital Image, p. 161).

Comments favorably on the concept design for the reconstruction of the 11th Street Bridges as shown on NCPC Map File No. 8.10(48.37)42815 with the exception of proposed streetcar system components for overhead wires.

Recommends that DDOT not include streetcar system components for overhead wires as part of the 11th Street Bridge project and that DDOT prepare an environmental impact statement for its proposed District wide streetcar system that examines potential impacts on the L’Enfant City and Georgetown and that includes an analysis of propulsion systems that do not require the use of overhead wires.

Advises DDOT that the Commission does not support a streetcar system with overhead wires because it supports the unobstructed views to important landmarks along the city’s streets and avenues that are integral to the District’s unique character and result from the long-standing federal statutory prohibition against using overhead wires in Washington City (the L’Enfant City) and Georgetown.

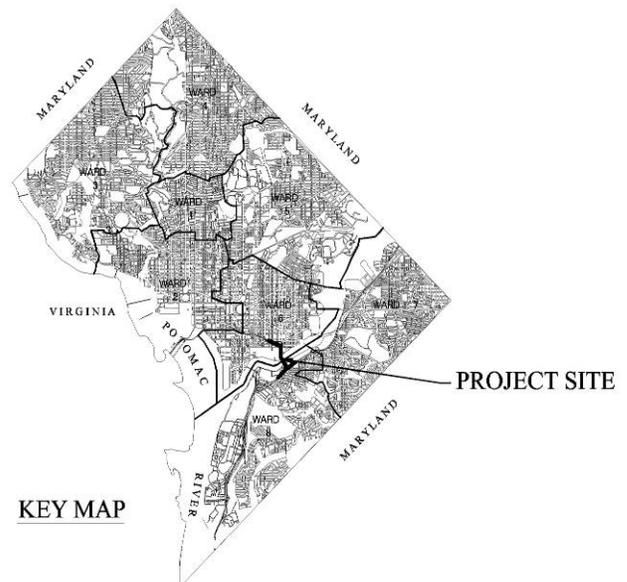
Encourages DDOT to pursue alternative propulsion technologies for the proposed streetcar system that do not require overhead wires in accordance with its January 24, 2008 commitment to include dual vehicle propulsion requirements in a solicitation package for the development and implementation of the broader streetcar system beyond the Anacostia and H Street/Benning Road corridors.

* * *

PROJECT DESCRIPTION

Site

The 11th Street Bridge project is located in the Southeast quadrant of Washington, D.C., where an existing pair of bridges links the Anacostia Freeway (I-295/DC295) with the Southeast/Southwest Freeway (I-695). Today, the 11th Street Bridges accommodate four lanes of combined freeway and local traffic in each direction (eight lanes in total) across the Anacostia River.



KEY MAP

The downstream bridge, which has four lanes heading south, terminates at Good Hope Road in the Historic Anacostia Neighborhood on the east side of the river. The upstream bridge, which has four lanes heading north, terminates south of Pennsylvania Avenue in the Capitol Hill Neighborhood on the west side of the river.



Existing 11th Street Bridges

Background

When the Southeast/Southwest Freeway was built in the mid-1960s as part of the planned Inner Loop Freeway System, regional plans envisioned it extending across the river and joining the Anacostia Freeway. These plans were abandoned, and today there is no direct connection between the Southeast/ Southwest Freeway and the Anacostia Freeway to the north of the 11th Street Bridge complex. Because of this, traffic is forced to use neighborhood streets to access the

11th Street Bridge complex and cross the Anacostia River. The result is increased traffic on local neighborhood streets such as Martin Luther King, Jr. Avenue, Good Hope Road, Pennsylvania Avenue, and Minnesota Avenue.

The existing 11th Street Bridge/Anacostia Freeway interchange also does not allow traffic east of the Anacostia River to enter the Anacostia Freeway at this location. Drivers may cross the 11th Street Bridge toward downtown Washington, DC or return, but they cannot enter or leave the Anacostia Freeway without taking neighborhood streets to adjacent interchanges at Pennsylvania Avenue, Howard Road, or South Capitol Street on the east side of the river.



Drivers may cross the 11th Street Bridges toward downtown Washington, D.C. or return, but they cannot enter or leave the Anacostia Freeway without taking neighborhood streets to adjacent interchanges at Pennsylvania Avenue, Howard Road, or South Capitol Street.

In 2005, the District Department of Transportation completed the Middle Anacostia River Crossings Transportation Study (MAC Study). The MAC Study was part of the larger Anacostia Waterfront Initiative (AWI), a partnership between the Federal and District governments to renovate the Anacostia River area. The study evaluated existing traffic conditions and mobility-improvement options and identified a number of short-term and long-term improvements. A set of these improvements has been grouped together as the 11th Street Bridge project. Those improvements include completing the 11th Street Bridges ramps to the Anacostia Freeway, as well as separating the interstate traffic from the local traffic, and improving riverfront access, signs, bicycle/pedestrian access, and transit access.

Proposal

The District Department of Transportation (DDOT) and the Federal Highway Administration (FHWA) propose to reconstruct the 11th Street Bridge complex to improve the highway connection between the Southeast/Southwest Freeway (I-695) and the Anacostia Freeway (I-295)

in Southeast Washington, D.C. The project would replace the 40-year-old pair of bridges across the Anacostia River, eliminating the structural deficiencies and providing needed safety enhancements to the bridge and approach ramp structures.

According to the Environmental Impact Statement that was completed in October of 2007, the purpose of the project is to:

- Reduce congestion and improve the mobility of traffic across the Anacostia River on the 11th Street bridges and on the local streets in the area.
- Increase the safety of vehicular, pedestrian, and bicycle traffic in the Anacostia neighborhood.
- Replace deficient infrastructure and improve roadway design.
- Provide an alternative evacuation route and routes for movements in and out of the nation's capital.

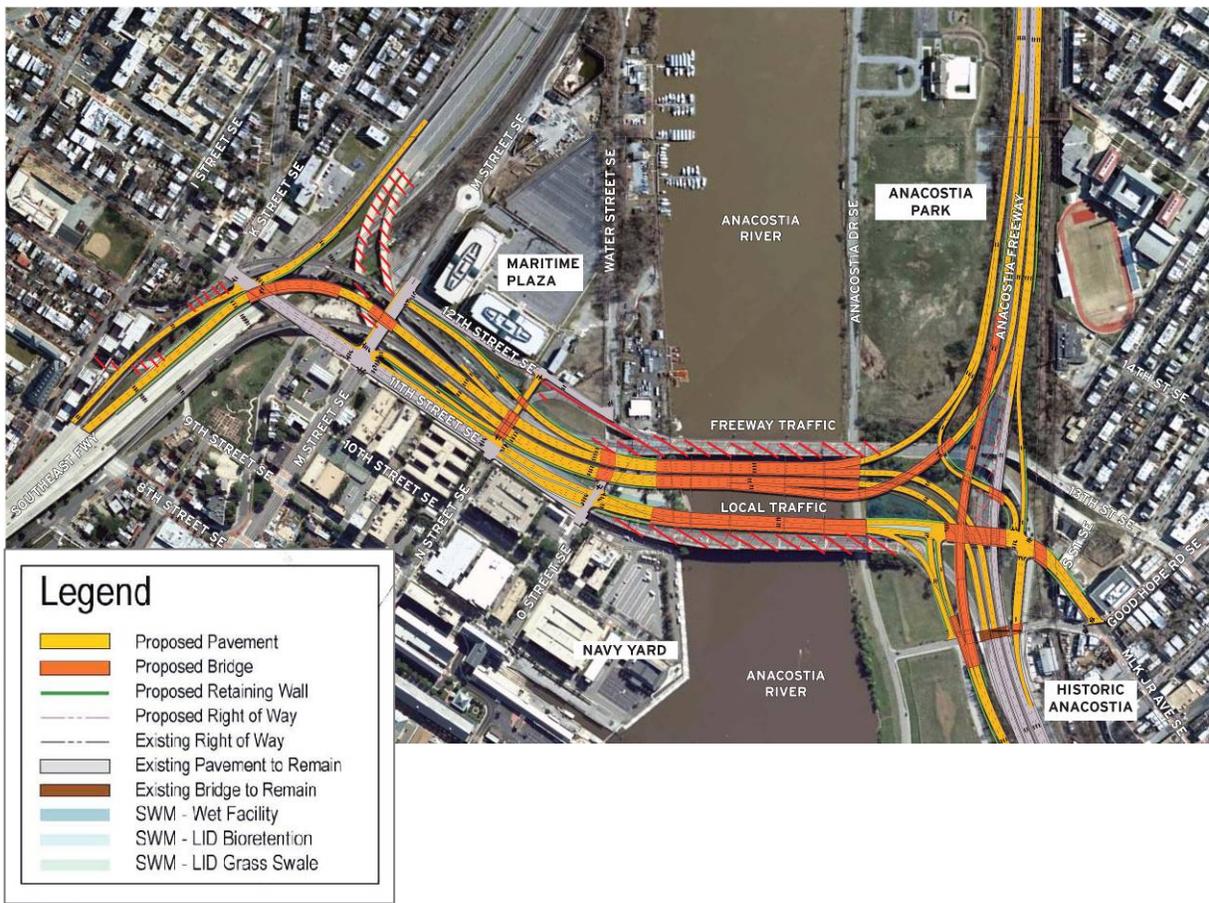
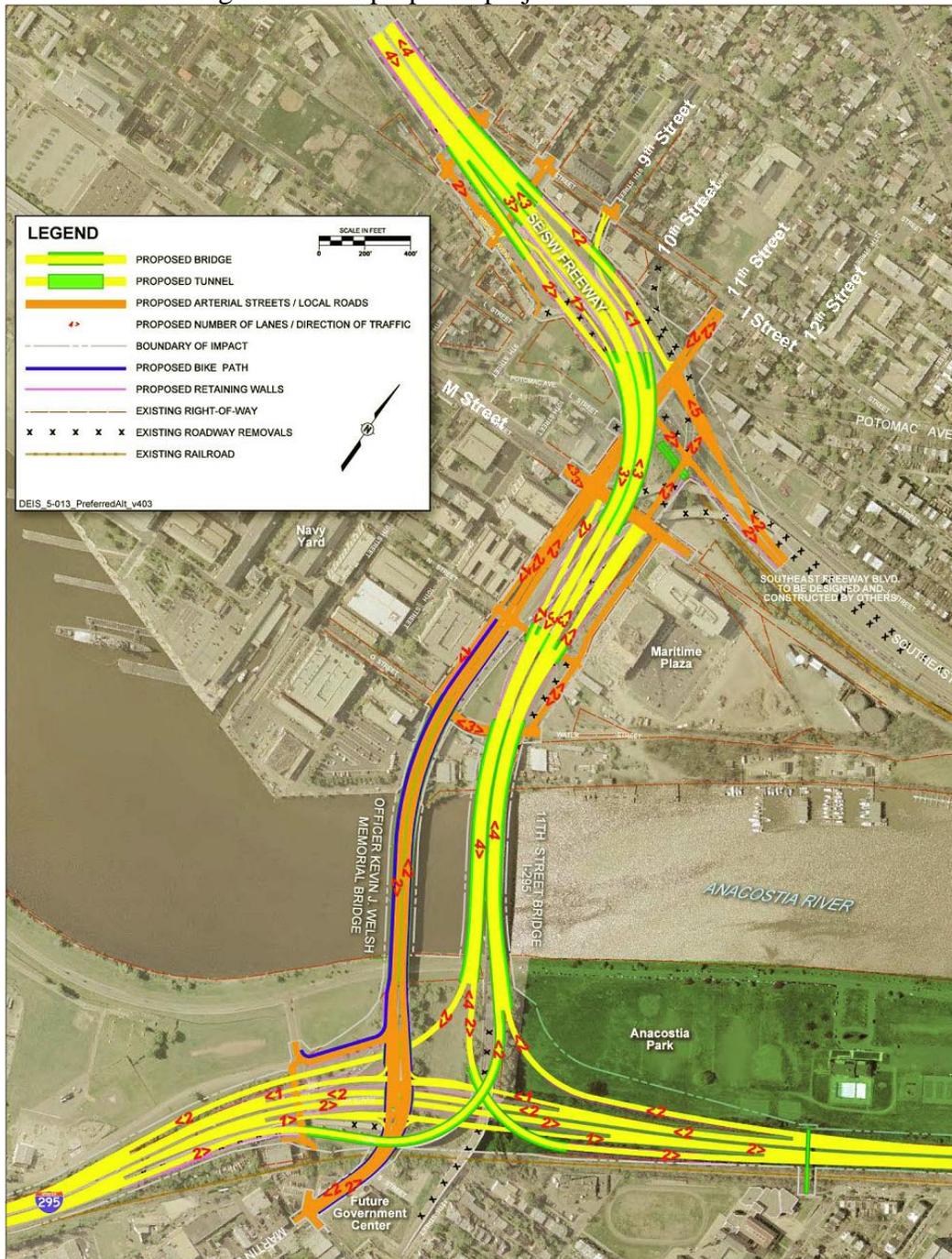


Illustration of Bridge Changes

The proposed plan for the new bridges includes several actions.

West of the Anacostia River

West of the river, the project would rehabilitate or replace portions of the Southeast Freeway from approximately 6th Street north to the 11th Street Bridges. This includes reconstruction of entrance and exit ramps and the relocation of the freeway connection to the bridges. The current ramps at N Street will move to M Street. The current exit between 9th Street and 10th Street will move to 9th Street. The number of freeway lanes on the Southeast/ Southwest Freeway and on I-295 would remain unchanged with the proposed project.



Proposed 11th Street Bridge Complex

Crossing the river, the project includes reconstruction of the two bridges. The existing piers would be reused and widened to support the additional structure width of the new bridges. The total land area footprint will increase from 73 to 82 acres.

Currently the 11th Street Bridges accommodate four lanes of combined freeway and local traffic in each direction across the Anacostia River. The upstream bridge has four lanes going north and the downstream bridge has four lanes heading south. The proposed project would include eight freeway traffic lanes (four in each direction) on the upstream bridge and four lanes of local traffic on the downstream bridge (two in each direction). Overall the total number of bridge lanes will increase from eight to twelve with the new proposal; however, two of the lanes will be ramps to enter and exit the freeway bridge and another two lanes on the local bridge will be shared with buses and/or streetcars.

The freeway bridge would have a full barrier separating opposing lanes of traffic; a 12-foot shoulder adjacent to the right side lanes and a 2-foot shoulder adjacent to the left side lanes. Two of the lanes will be ramps to enter and exit the freeway bridge on the west side of the river.

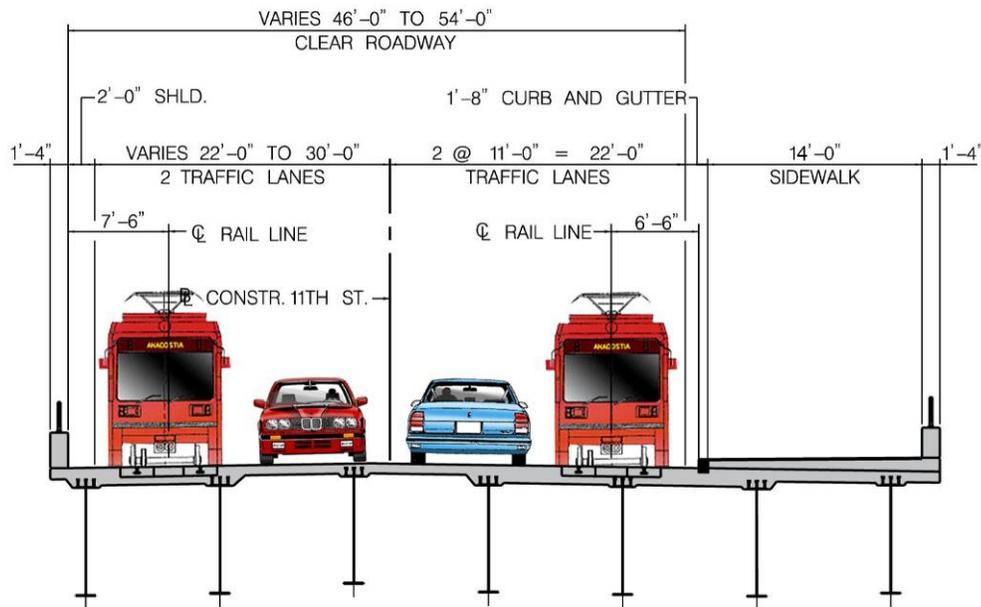


Aerial rendering of the proposed bridge plan

The local bridge would provide new capacity for local traffic and transit to cross the river. The local bridge design would accommodate a proposed future streetcar system (not part of this project) and a 14' wide shared-use path for walking, jogging, and bicycling that would tie into

the existing and planned trails on both sides of the river. The new design builds on the District's goals of a city wide multi-modal network focused on pedestrian/bicycle and transit access.

As part of the future streetcar system, the local bridge is proposed to be built with tracks so that a streetcar route that crosses the 11th Street Bridge would not be precluded. The proposed project includes light poles with the ability to accommodate overhead wires. The streetcars would operate in shared lanes with passenger cars, trucks, and buses. The section of the local bridge (below) shows the four traffic lanes, including the outer two lanes that will include the infrastructure for possible streetcars in the future.



Section of the 11th Street Local Bridge

East of the Anacostia River

East of the river, the project would reconfigure the interchange between the Anacostia Freeway and the bridges. The freeway would be rehabilitated from a point north of Howard Road to a point south of Pennsylvania Avenue. Neither the interchange with Howard Road nor the interchange with Pennsylvania Avenue is involved in the project. New ramps east of the Anacostia River would connect both directions of the Anacostia Freeway with cross-river freeway bridges. Currently only the southern reach of the Anacostia Freeway is directly linked to the bridges.

The number of freeway lanes entering and leaving the project area (on the Southeast/ Southwest Freeway, on I-295, and on the Anacostia Freeway) would remain unchanged with the proposed project.



The freeway would be rehabilitated from a point north of Howard Road to a point south of Pennsylvania Avenue

The project would also provide a service interchange between the Anacostia Freeway and Martin Luther King, Jr. Avenue. This interchange would provide direct access to historic Anacostia and the local bridge. The local bridge would have two travel lanes in each direction and a 2-foot shoulder adjacent to each of the sidewalks.

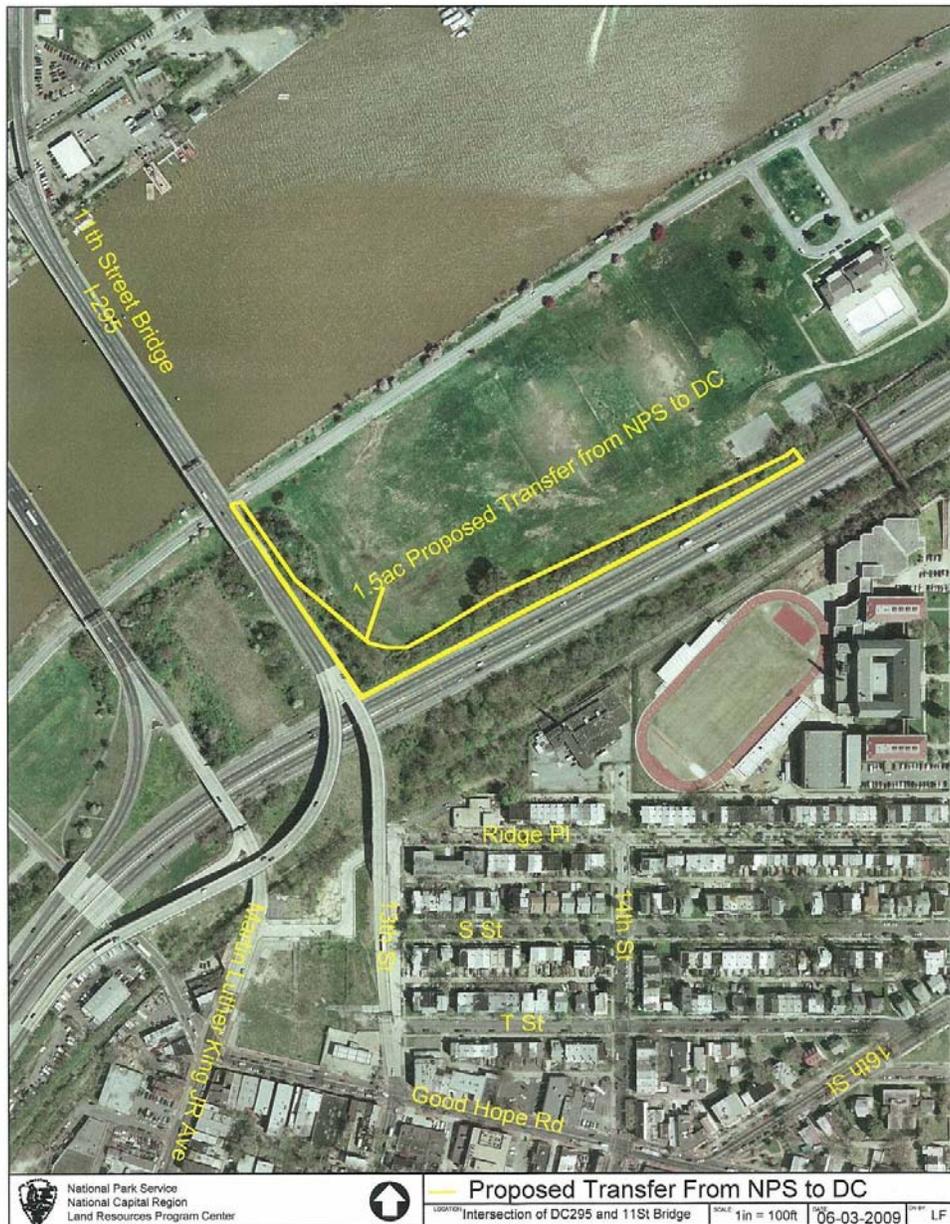
Local access to Anacostia Park would occur via the revised access to the local river crossing roads in addition to the current access at Good Hope Road. Ties to three local streets, Martin Luther King, Jr. Avenue, Good Hope Road, and 13th Street, will be reconfigured. Guide signs to the Park from throughout the corridor will direct traffic to destinations within and beyond the area.



Vehicular Access to Anacostia Park (dotted white lines)

Land Transfer

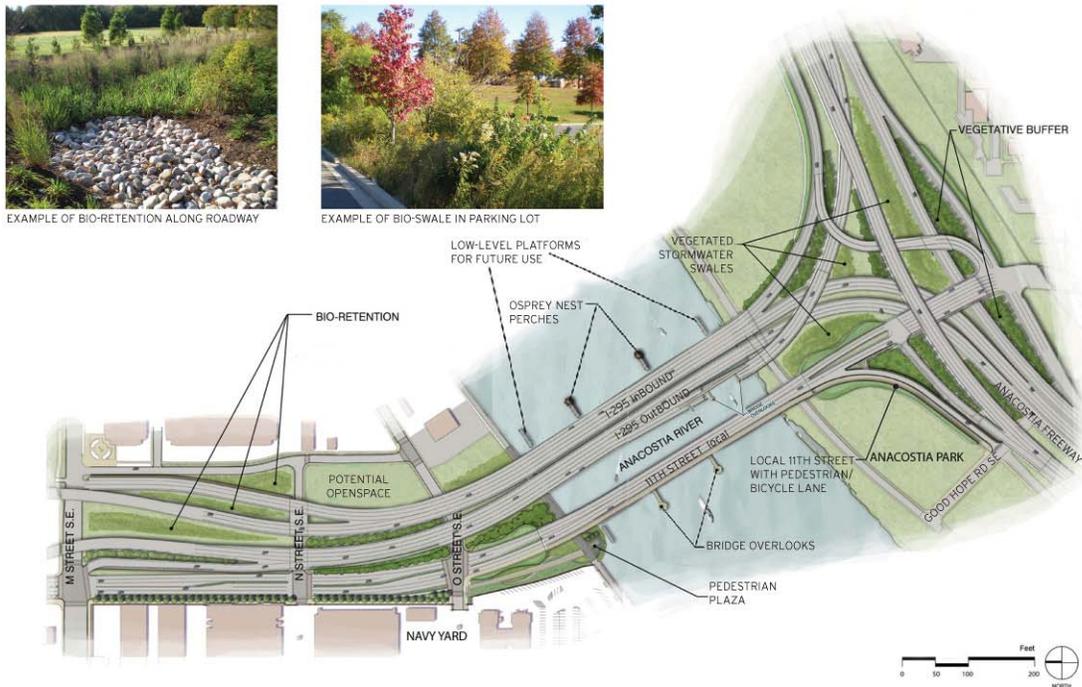
The National Park Service, working in coordination with DDOT, has proposed to transfer administrative jurisdiction of 1.5 acres of Reservation 343D (Anacostia Park) at Good Hope Road to the District for the 11th Street Bridge project. The property to be transferred will be used to construct a new ramp allowing traffic heading southbound on I-295 to merge onto westbound 11th Street, a movement which is currently not possible. Today, the 1.5 acres consist of vegetation.



Landscaping

The applicant proposes to plant bioswales underneath the bridge ramps to provide a connection between the bridges and the river landscape. There will also be planted berms underneath the bridge spans as they connect with the Anacostia and Southwest Freeways to assist in drainage

and water infiltration. The landscaping will include discrete areas of woodland restoration through plantings of seedlings or saplings to enhance the habitat of Anacostia Park. New street trees will be planted next to the existing street trees to provide a continuous canopy on both sides of the river. Bioretention ponds on the west side of the river will be planted with native and adapted plants to provide storm water function as well as seasonal interest. Turf grass will be installed in some areas to be consistent with adjacent parks.



Landscape Plan

Materials and Lighting

Bridge abutments and retaining walls will be finished with ashlar stone in a randomized pattern, integrally colored to resemble the varied appearance of natural stone. Decks, curbs and parapet walls will be concrete. Bridge railings will be finished with a bare metal appearance.



All of the light sources used for the lighting of the 11th Street Bridge will be selected to balance energy efficiency, low maintenance and aesthetics. During the day, the piers will be shadowed by the bridge, but at night the piers will become a distinct visual element. The piers will be lit at

night to create a look of openness under the deck. The bridge deck and roadway lighting fixtures will consist of Washington Globe lights, teardrop pendants and Twin-20s as specified in the Anacostia Waterfront Transportation Architecture Design Guidelines.



Washington Globe



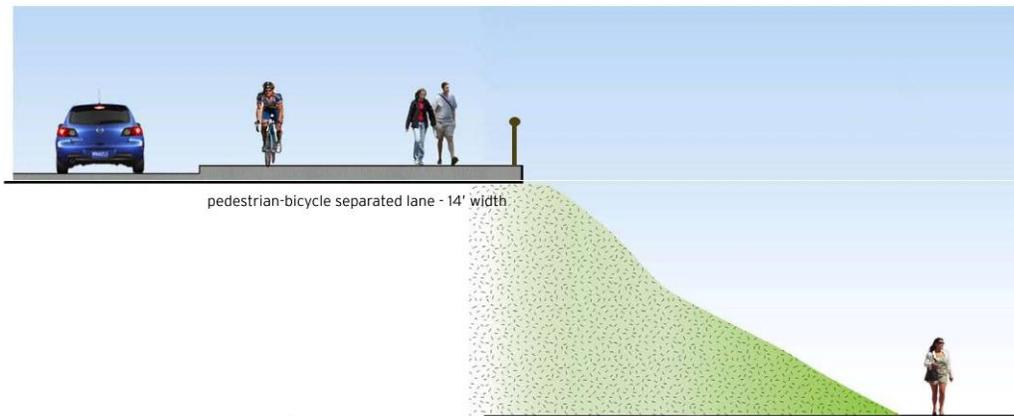
Tear Drop Pendant



South elevation nighttime view from Anacostia Park

Pedestrian and Bicycle Access

The local bridge will include a 14' wide separated path for pedestrian and bicycle use. The path will accommodate pedestrian and bicycle travel in both directions.



Local 11th Street Bridge Section

Funding and Construction Schedule

DDOT undertook a “Design-Build to Budget” procurement to maximize the use of currently allocated money and to provide the core elements of the project scope in a timely and cost-effective manner. The design of the bridge is in the very early stages with only conceptual renderings available at this time. The total cost of bridge construction is anticipated to be \$300 million.

PROJECT ANALYSIS

Staff's analysis of the 11th Street Bridge project and the related land transfer is presented by topic area. The topic areas include traffic analysis, air quality, noise, views, memorials, landscaping, pedestrian/bicycle access, design, streetcar and the land transfer.

Traffic Analysis

Currently the 11th Street Bridges accommodate four lanes of combined freeway and local traffic in each direction across the Anacostia River. The upstream bridge has four lanes going north and the downstream bridge has four lanes heading south. The proposed project would include eight freeway traffic lanes (four in each direction) on the upstream bridge and four lanes of local traffic on the downstream bridge (two in each direction). Overall the total number of bridge lanes will increase from eight to twelve with the new proposal; however, two of the lanes will be ramps to enter and exit the freeway bridge and another two lanes on the local bridge will be shared with buses and/or streetcars. The result of separating the local traffic from the freeway traffic is that existing bottlenecks caused by the merging of local and freeway traffic on the bridges will be eliminated. The number of lanes on the proposed freeway bridge will be the same as the number of lanes on the connecting freeways.

The EIS states that the proposed project would result in an additional 50,000 cars a day on the 11th Street Bridges (combined). Modeling has shown that the increase in trips will come from various sources. Some of the additional traffic will be re-routed from the Pennsylvania Avenue Bridge and the South Capitol Street Bridge as a result of the improved interchange connections on the east side of the river. Other traffic, though, reflects changes in local traffic patterns caused by improved access across the river. In effect, some local trips that currently may have an origin and destination on one side of the river would in the future have an origin on one side and a destination on the other. Modeling shows that none of the additional cars are coming from the regional roadway network or from locations greater than one mile outside the project's radius.

The connecting freeways to the bridges will not expand as part of this project nor is expansion of these freeways envisioned in the future. On the contrary, the Comprehensive Plan for the National Capital *Federal Elements* and the District's Comprehensive Plan propose to eliminate the Southeast/Southwest freeway and the barrier it creates between the neighborhoods and the waterfront. Investing in the 11th Street bridges today will not preclude the elimination of the Southeast/Southwest Freeway in the future because the current freeway system needs to function until there is a plan and budget to remove the Southeast/Southwest freeway.

Therefore staff recommends that the Commission support the bridge replacement project because it improves local multi-modal connections and repairs aging infrastructure; however, that the Commission also continue to support the future removal of barriers such as the Southeast/Southwest Freeway (Interstate 695) in accordance with the Comprehensive Plan for the National Capital (National Capital Image, p. 161).

The EIS also shows that east of the river, the proposed project is forecast to draw traffic from Anacostia neighborhood streets on to the regional and freeway system (I-295/ Anacostia Freeway). Because missing freeway movements between the Anacostia Freeway and the 11th

Street Bridge are provided with the new project, traffic would no longer be forced to use neighborhood streets to access the 11th Street Bridges complex. As a result, traffic is forecast to increase on the Anacostia Freeway and decrease on Martin Luther King, Jr. Avenue, Good Hope Road, and Minnesota Avenue.

Arterial roadways (M Street and 11th Street) west of the river that connect to the freeway system are forecast to carry an increased volume of traffic. The proposed project forecasts that traffic on M Street will increase by up to 10,200 vehicles daily compared to the no-build scenario in 2030. Traffic is also expected to increase on 11th Street by 4,400 vehicles daily as a result of relocating the ramps connecting to the Southeast/Southwest Freeway and construction of the new local bridge across the Anacostia River.

Overall the traffic analysis shows that while the proposed project will increase traffic volume on the 11th Street Bridges and at certain intersections on the west side of the river, it will also have several positive impacts. These include reducing traffic in Historic Anacostia, improving vehicle circulation, replacing structurally deficient bridges, and improving public transportation and pedestrian and bicycle access across the river.

Air Quality

Air quality in the project area will be affected because the number of vehicles, their speed, and the level of congestion on the local roadways will change. Vehicle exhaust pollutants include carbon monoxide (CO), particulate matter (PM10 and PM2.5), and ozone precursors (NO_x and VOC).

In the District (and thus the project area), the levels of ozone and PM2.5 exceed the National Ambient Air Quality Standards (NAAQS) and therefore the District is considered to be in “nonattainment” for these pollutants. Additionally, the District previously did not meet the NAAQS for carbon monoxide but has since attained the standard and as a result the District is now a “maintenance area” for CO, meaning it has had to develop a maintenance plan for CO.

Local Impacts

The EIS modeled the carbon monoxide levels at poorly functioning intersections within the study area over an 8 hour period for the year 2030 and found that CO concentrations will increase at two of the four existing intersections with the proposed project (compared to the 2030 no build scenario). CO concentrations will also increase with the addition of two new intersections, one at the Southeast/Southwest Freeway off-ramp and 11th Street SE and one at the Southeast Freeway Boulevard at 12th Street, SE. There is no projected difference for the intersections at Good Hope Road. As seen in the table below, both the no-build scenario and the proposed project in 2030 will have reduced CO emissions compared with 2004 levels. The reason for this is that the EIS found that there will be cleaner operating vehicles in the future. Both the proposed project and the no build scenario for 2030 will have air pollution levels under the National Ambient Air Quality thresholds.

Modeled 8-Hour Carbon Monoxide Concentrations at Congested Intersections (parts per million)

Intersection	2004	No-Build 2030	Proposed Project
M Street, SE and 11 th Street, SE	3	2.3	2.6
N Street, SE and 11 th Street, SE	2.4	2.2	2.3
Southeast Freeway Blvd and 12 th Street, SE	NA	NA	2.1
Southeast/Southwest Freeway off-ramp and 11 th Street, SE	NA	NA	2.3
Good Hope Road and Martin Luther King, Jr. Avenue	3.2	2.3	2.3
Good Hope Road and Minnesota Avenue	2.4	2.1	2.1

Modeled 8-hour CO concentrations are below NAAQS thresholds for the most congested intersections. The table compares the No-Build 2030 scenario with the proposed project.

In addition to the carbon monoxide analysis, an emissions burden analysis was performed to estimate the project study area daily emission rates associated with the project. CO, PM (PM₁₀ and PM_{2.5}), and ozone precursor (VOC and NO_x) emission rates were calculated as part of the burden analysis to provide an indication of the effects of the project throughout the project study area with regard to air pollutants. As the table illustrates below, the percent increase in emissions with the additional traffic volume from the proposed project (at the most congested intersections) is on average 8 percent. The pollutant PM_{2.5} is not expected to change.

As mentioned earlier, even though average daily traffic is forecast to increase between 2004 and 2030 (regardless of the project), a comparison between existing study area emissions and the no-build scenario in 2030 demonstrates there will be cleaner operating vehicles in 2030 with significant emission reductions of CO, NO_x, and VOC. The emission of CO is expected to fall by about 50%. NO_x will decline more than 80% and VOC by 66%. Only emissions of PM₁₀ and PM_{2.5} would not vary. Because of this, the concentrations of pollutants in 2030 drops substantially.

Modeled 8-hour 2030 Concentrations of Pollutants (pounds per day)

Pollutant	Existing (today)	No-Build 2030	Proposed Project 2030
CO	4,648	1817	1974
NO _x	533	88	95
VOC	308	102	111
PM ₁₀	16	15	16
PM _{2.5}	9	7	7

Overall the EIS shows that there is a slightly higher emission rate in the project area that reflects that more vehicles will be using roads in the study area. However, it also states that this is not an indication that the project represents a negative effect on regional air quality. Recognizing that the study area is a subset of the air quality region (the DC metro area), the estimate does not account for traffic changes outside of the study area, such as reduced vehicle miles traveled because of this project (and thus fewer emissions). While modeling has shown that the project will not pull traffic from areas over one mile away, it will reduce traffic on the Sousa Bridge, the South Capitol Street Bridge and other nearby locations and thus reduce emissions in those nearby areas.

Air quality is modeled regionally. The air quality impacts of the project are expected to be within the Metropolitan Washington Council of Governments regionally modeled air quality Transportation Improvement Plan. This plan models all of the proposed projects for a region that

include roadways, residential and commercial development, etc. and determines what air quality that would result from those projects.

Finally, the Transportation Conformity Rule (40 CFR 93.114 and 93.115) requires that a currently conforming regional long-range transportation plan (plan) and a regional short-range transportation improvement program (TIP) must be in place at the time of project approval, and the project must come from the conforming plan and TIP. On October 19, 2005, the National Capital Region Transportation Planning Board, the metropolitan planning organization (MPO) for the Washington, DC-MD-VA metropolitan area, adopted its Constrained Long Range Plan (CLRP), and Transportation Improvement Program (TIP). In late 2005, FHWA/FTA found the CLRP and TIP conform for all applicable pollutants. The 11th Street Bridges project was amended to the current CLRP and TIP in April, 2006. The Transportation Planning Board adopted the 2006 CLRP and 2007-2011 TIP on October 18, 2006. FHWA/FTA issued the Conformity Determination on April 6, 2007.

Noise

Noise impacts were modeled for all of the project area. There were 30 receivers monitored throughout six noise study areas. These include Fairlawn/16th Street, Ridge Place/13th Street, Anacostia Park, Virginia Avenue Park, Marine Barracks, Hopkins/K Street Triangle Park. As a result of this project, there are 23 of 38 receivers that would be considered impacted by noise in the preliminary design stages.

As the design moves forward into final design, a complete noise analysis will be performed to verify the impacted locations. At that time, mitigation (such as noise barriers either at the receiver or at the source) would be evaluated for being both feasible (can the mitigation actually bring down the noise level to an acceptable level) and reasonable (will the cost of the construction be within the limits that would be accountable to the taxpayers' dollars).

Views

From a visual impact perspective, the project is largely a replacement of existing structures, bridges, ramps, retaining walls, and highways, and the addition of two ramps to the interchange east of the river. Photosimulations and renderings from different perspectives are shown below.



Looking north from Anacostia Park



Simulation of Preferred Alternative from Anacostia Park looking southwest to the interchange with I-295 and the river bridges.



Use of retaining walls at Virginia Avenue Park



Photosimulation from the intersection of Martin Luther King, Jr. Avenue and Good Hope Road



Photosimulation from the intersection of Martin Luther King, Jr. Avenue and Good Hope Road

While some of the new connecting ramps are now visible from certain locations, the EIS has determined that the scale of the viewshed in this area and the existence of the current highway and bridge minimize the potential for the proposed project to have visual impacts. The EIS did not analyze the direct and indirect visual impacts of a streetcar system with overhead wires on the proposed project or the L'Enfant City.

Memorials

In 2001, NCPC published the *Memorials and Museums Master Plan*. The plan identified 100 sites for new commemorative works, including 20 “prime sites” and 80 “other candidate sites.” The area between the 11th Street Bridges east of the river is identified as Candidate Site 64. The area between the 11th Street Bridges west of the river is identified as Candidate Site 69. The existing open area east of the river will decrease by the need to link the upstream bridge and southern reaches of I-295, but the EIS states that there should still be enough open space available for a memorial if the site was to be selected. The area between the bridges west of the river will remain largely unchanged.

Landscaping

The landscaping concept for the project responds to the immediate context of the Anacostia waterfront. The proposed landscape approach integrates these spaces to provide a seamless, park and open space system along the waterfront. Green infrastructure elements incorporate bioengineering with contemporary design aesthetics to reduce environmental and visual impacts and increase the sustainability of the project.

Pedestrian/Bicycle Access

The new bridge design includes a 14 foot wide separated path on the local bridge for pedestrians and bicyclists. The path will connect with the riverwalk trail on both sides of the Anacostia River, improving continuous access across the river for recreation and commuting as envisioned in the larger Anacostia Waterfront Framework Plan.

Design

The design for the project is still early in the concept phase. The 11th Street Bridges are visible from locations along both shores of the river, including Anacostia Park, the Navy Yard and beyond. From the north and east, the bridges will be visible from the Route 295 outbound bridge as well as points along the shore between the bridges. The bridges are visible both from residential streets at the west end of the district, and from two major intersections on Good Hope Road.

The diverse characters of these areas, including urban neighborhoods, historic properties, recreational trails, and the open park, demonstrate the challenge of creating a context sensitive design for the 11th Street corridor and bridges. In response to this challenge, bridge abutments and retaining walls will be finished with ashlar stone form-liner in a randomized pattern, integrally colored to resemble the varied appearance of natural stone. Decks, curbs and parapet walls will be concrete. Bridge railings will be finished with a bare metal appearance. The overall lighting concept will focus on the traditional Washington Globe lights. Overall staff finds that the selected materials and lighting are appropriate for this set of bridges which connect two historic neighborhoods, Capitol Hill and Historic Anacostia, and the riverfront.

Therefore staff recommends that the Commission comment favorably on the concept design for the reconstruction of the 11th Street Bridges as shown on NCPC Map File No. 8.10(63.00)42815 with the exception of proposed streetcar system components for overhead wires.

Streetcar

The proposed bridge project will include streetcar infrastructure that consists of embedded rails and the installation of light poles (that will also function as catenary poles) with the ability to accommodate overhead wires. The future streetcar line would operate in the outer eastbound and westbound lanes of the local bridge.

DDOT envisions an ambitious city-wide transit system that would include streetcars, however, specific routes and feasibility have not been determined. DDOT submitted a street section to illustrate how the local bridge might look and function with streetcars. The streetcars would not run in dedicated lanes but instead would share lanes with other vehicles.

DDOT's proposed streetcar system, as currently planned by DDOT, would have an overhead contact system, and would include infrastructure to support overhead wires, which have been prohibited by federal law in the City of Washington and in Georgetown for over a century. The infrastructure that DDOT envisions includes poles to carry overhead wires.

As a planning matter, NCPC advises DDOT against developing a streetcar system powered by overhead contact wires with related infrastructure for any part of the streetcar system within the L'Enfant City and Georgetown. Implementation would affect viewsheds that have been protected from such overhead elements since Washington was developed as a modern city in the nineteenth century. The anticipated infrastructure would introduce an element into streetscapes that has been intentionally avoided and prohibited for over a century.

Although the implementation of streetcar routes with an overhead system could meet transit goals stated in the Federal and District elements of the Comprehensive Plan for the National Capital, it would also contradict mutually shared planning guidance to protect right-of-way viewsheds within the L'Enfant City that are also stated in the Federal and District elements of the Comprehensive Plan. Additionally, the L'Enfant Plan rights-of-way have protection through listing in the District of Columbia Inventory of Historic Sites and in the National Register of Historic Places.

Federal law supports this planning guidance. The statute specific to the prohibition of overhead contact rail wires is an 1889 statute that applies to "Washington City" and Georgetown. A series of federal statutes from the 1880s through the turn of the century continues this prohibition of overhead wires and can also be seen as part of more comprehensive planning direction, supported by Congress, to ensure that Washington remain a city of open vistas.

The staff is concerned that implementation might also disregard or preclude emerging streetcar technologies that might better suit Washington's unique natural, cultural and historic landscape. The technology to propel streetcars without overhead wires is available, although there are no applications in the United States. Several European cities, most notably Bordeaux, are protecting their views and street aesthetics around important historic areas by developing and installing surface technology. The concept is that electric energy is provided through a surface line where the center rail is electrified only as the streetcar passes over it, removing concerns about public access to an electrified at-grade rail.

More recently, several companies have been competing to develop new streetcar technology without overhead wires. Bombardier has introduced a catenary-free, contact-less tram. The system relies on electromagnetic fields released from buried circuits placed between and beneath the tracks. When passing overhead, streetcars convert the field to electricity used to power the train; in other words, the trains receive their power without contact through inductive power. The charge is only activated when the circuit is completed covered by the vehicle, which ensures that pedestrians can never come into contact with electricity.

Alstom's technology has advanced streetcar design even further. It would allow for fewer catenary wires and no underground construction; it simply requires the upgrading of existing tram vehicles. Trains will be equipped with large batteries connected to their motors that will be charged each time the vehicle brakes, much like the way a Toyota Prius hybrid refills its battery. In addition, the trams will be able to benefit from charging during 20-second station dwell times. Theoretically, the system wouldn't require the use of the catenary between stations.

In short, it means that transit agencies could install tracks without the relatively expensive overhead catenaries between stations, putting them only above stops, where they'll serve as recharging units alone. This will result in less expensive construction and operations costs.

At a time when other cities are considering the use of new surface contact streetcar systems and the removal of overhead wires and the related pole infrastructure in order to restore views in visually or historically sensitive areas, staff is concerned about the proposed introduction of an overhead contact system in Washington.

Finally, staff is also concerned that the District is laying tracks without having done the necessary analysis required by the Federal Transit Administration for new projects, including an alternatives analysis and an operations and maintenance plan, and an environmental impact statement.

Therefore staff recommends that the Commission:

Recommends that DDOT not include streetcar system components for overhead wires as part of the 11th Street Bridge project and that DDOT prepare an environmental impact statement for its proposed District wide streetcar system that examines potential impacts on the L'Enfant City and Georgetown and that includes an analysis of propulsion systems that do not require the use of overhead wires.

Advises DDOT that the Commission does not support a streetcar system with overhead wires because it supports the unobstructed views to important landmarks along the city's streets and avenues that are integral to the District's unique character and result from the long-standing federal statutory prohibition against using overhead wires in Washington City (the L'Enfant City) and Georgetown.

Encourages DDOT to pursue alternative propulsion technologies for the proposed streetcar system that do not require overhead wires in accordance with its January 24, 2008 commitment to include dual vehicle propulsion requirements in a solicitation package for the development and implementation of the broader streetcar system beyond the Anacostia and H Street/Benning Road corridors.

Land Transfer

The National Park Service, working in coordination with DDOT, proposes to transfer administrative jurisdiction of 1.5 acres of Reservation 343D (Anacostia Park) at Good Hope Road to the District for the 11th Street Bridge project. The property to be transferred will be used to construct a new ramp allowing traffic heading southbound on I-295 to merge onto westbound 11th Street, a movement which is currently not possible. Today, the 1.5 acres consist of grass and vegetation.

In exchange for the land, the District of Columbia will implement a series of enhancements to create an overall net benefit to Anacostia Park. A \$2 million budget has been established for this purpose.

Therefore staff recommends that the Commission approve the transfer of jurisdiction of approximately 1.5 acres of Reservation 343D (Anacostia Park) to the District of Columbia government for transportation purposes as shown on NCPC Map File No. 8.10(63.00)42815.

CONFORMANCE

Comprehensive Plan for the National Capital

The Federal Elements of the Comprehensive Plan for the National Capital contain policies that support the 11th Street Bridge Project. These include:

Among the policies for Bicycle Facilities in the Transportation Element, the federal government should:

6. Support the development of a continuous system of trails for hikers and bikers in the region, with an emphasis on bicycle commuting.

Among the policies for Air Quality in the Federal Environment Element:

1. Mobile sources of air pollutants should be reduced by encouraging federal, state, and local governments as well as private employers to support improvements to and utilization of public transportation systems.

Among the policies for the National Capital Image

6. Create transportation infrastructure that is consistent with the pedestrian character of the L'Enfant City and other historic settings. Bridges across the Potomac and Anacostia Rivers should be integrated with the design character of historic contexts.

The Federal Elements of the Comprehensive Plan for the National Capital contain policies that support the expansion of transit services as well as policies that protect the right-of-way viewsheds of the L'Enfant Plan.

Among the policies for Commuter Rail, Rail Transit, and Bus Transit in the Transportation Element, the federal government should support:

5. The design and implementation of new, expanded, and innovative transit services that supplement existing transit and fill unmet transit needs (e.g., Downtown Circulator, Busway, Bus Rapid Transit projects, light rail, trolley).
7. The development of intermodal transit centers that provide greater transit access and improved interconnectivity for federal commuters.

Among the policies for the Historic Plan of Washington, D.C. in the Preservation and Historic Features Element, the federal government should:

2. Promote continuity in the historic design framework of the nation's capital by protecting and enhancing the elements, views, and principles of the L'Enfant Plan. Both the federal and the District of Columbia governments should adhere to these principles in any improvements or alterations to the historic framework.
8. Protect and control the visual and functional qualities of L'Enfant rights-of-way.
9. Protect the open space of the L'Enfant streets. The exceptional width and openness of the street rights-of-way constitutes public space that helps to define the character of the city.

Monumental Core Framework Plan

The recently adopted Monumental Core Framework Plan contains policies that support the removal of the Southeast/Southwest Freeway. These include:

- Reduce the impact of transportation infrastructure to restore the grid of streets and avenues, promote continuity of pedestrian access, and contribute to a sustainable urban environment. Highspeed roadways and rail lines should be decked over, and road, bridge, and rail infrastructure should be relocated if possible, to maximize opportunities to create high-quality, pedestrian-friendly public spaces and increase access to the riverfront.

National Environmental Policy Act (NEPA)

NCPC does not have review authority for projects outside of the Central Area and as a result does not normally have a NEPA obligation; however, because NCPC has review authority for the transfer of jurisdiction of the NPS land in Reservation 343D and this action is a component of the overall bridge project, NCPC has a NEPA obligation for both the bridge project and the land transfer.

DDOT prepared an EIS for the 11th Street Bridge project that was finalized in September of 2007. The Record of Decision (ROD) was signed in July 2008. NCPC was a participating agency in this endeavor and is adopting the EIS for its own NEPA obligation. The EIS analyzed four alternatives in addition to the no build alternative. Staff has used the EIS to inform its review and recommendations which are located in the Project Analysis Section of this report.

The EIS did not analyze the direct and indirect visual impacts of a streetcar system with overhead wires on the proposed project or the L'Enfant City. NCPC recommends that DDOT prepare an environmental impact statement for its proposed District wide streetcar system. The Federal Transit Authority normally considers a streetcar project a class of action that would require an environmental impact statement (23CFR Part 771, §771.115).

Section 4(f)

Section 4(f) properties in the project area include the 1.5 acres of land in Anacostia Park which is owned by the National Park Service. The 4(f) process determined that all reasonable alternatives

satisfying the project purpose and need required property from Anacostia Park. An avoidance build alternative that meets the project purpose and need was developed to investigate the consequences of avoiding all permanent right-of-way acquisition from the Section 4(f) resources within Anacostia Park on the east side of the river. This alternative would require the destruction of homes and businesses for several blocks in the Historic Anacostia Neighborhood. Therefore the 4(f) process determined that the avoidance alternative was not prudent since it would result in impacts to another 4(f) property, Historic Anacostia.

Since there was no prudent and feasible alternative, the proposed alignment includes all possible measures to minimize harm including keeping the roadway alignment within the existing right-of-way to the maximum extent possible and using retaining walls to reduce the amount of parkland needed for construction. In addition to the mitigation measures, a series of enhancements will be implemented to create an overall net benefit to Anacostia Park. A \$2 million budget has been established for this purpose.

National Historic Preservation Act (NHPA)

The undertaking was found to have an adverse effect on historic properties eligible for inclusion in the National Register. The affected resources include previously identified prehistoric and historic archaeological sites and two areas identified as having a high potential for archaeological resources and paleontological resources. The first area is located along the former shoreline of the Anacostia River on the eastern shore of the river and has a high potential for prehistoric archaeological resources and paleontological resources. The second area is the boundary of the impact footprint that will include portions of city blocks that were occupied in the nineteenth through twentieth centuries and that has a high potential for historic archaeological resources.

The proposed project will not use any property from the nearby historic districts listed on the National Register of Historic Properties (NHRP). In the project area, NHRP listed properties include the Capital Hill Historic District, the U.S. Marine Corps Barracks, the Washington Navy Yard Historic District, and the Anacostia Historic District.

FHWA determined in the EIS that the scale of the viewshed in this area and the existence of a highway and bridge minimized the potential for any of the build alternatives to create indirect visual impacts. The EIS did not analyze the direct and indirect visual impacts of a streetcar system with overhead wires on the proposed project or the L'Enfant City.

FHWA determined that the proposed project creates an adverse effect to Anacostia Park due to a change in the character of the property's use and physical features that may affect an area known as Camp Marks, site of the 1932 veterans' camp associated with the Bonus March.

The signatories agreed to measures meeting professional standards for the further identification and evaluation of archaeological resources, and to data recovery, if necessary. They also agreed to a program of public interpretation, protection of historic features, and land reconciliation. DDOT, in consultation with NPS, will develop and install interpretive markers describing the Bonus March at a location to be determined by NPS. DDOT will also develop and submit to NPS a formal package nominating Anacostia Park to the National Register. On the upriver side of the bridges, on the east and west banks of the Anacostia River, steps will be taken to avoid the

historic seawall. And the remaining there baseball fields will be topped with twelve inches of clean topsoil to facilitate turf growth.

A Programmatic Agreement (PA) demonstrating compliance with the requirements of Section 106 of the National Historic Preservation Act was executed in September 2007. The signatories to the PA are FHWA, DC SHPO, NPS, and DDOT.

CONSULTATION

Coordinating Committee

The Coordinating Committee reviewed the proposal on June 17, 2009 and forwarded it to the Commission with the statement that the proposal has been coordinated with all participating agencies. The participating agencies were NCPC; the National Park Service; the General Services Administration; the District of Columbia Office of Planning; the District of Columbia Fire and Emergency Medical Services; the Department of Housing and Community Development and the Washington Metropolitan Area Transit Authority.

Commission of Fine Arts

DDOT has not yet submitted the project for review by the Commission of Fine Arts.