

# STAFF RECOMMENDATION



NCPC File No. 6510

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## ANACOSTIA LIGHT RAIL TRANSIT Southeast Washington, DC

Submitted by the Washington Metropolitan Area Transit Authority

October 28, 2004

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### Abstract

The Washington Metropolitan Area Transit Authority (WMATA) has submitted a project to construct a 2.7 mile light rail transit (LRT) system with six station stops and a yard and shop facility within an existing CSX Railroad right-of-way on the east side of the Anacostia River in the District of Columbia. The LRT system will run between Pennsylvania Avenue, SE on the north and Bolling Air Force Base on the south, connecting with the Anacostia Metrorail station along the way. This LRT demonstration project is envisioned as the first phase of a proposed city-wide light rail system that will complement Metrorail and Metrobus operations in the District of Columbia.

### Commission Action Requested by Applicant

Approval of concept design plans pursuant to D.C. Code § 9-1107.01, 40 U.S.C § 8722(d) and Section 5 of the National Capital Planning Act (40 U.S.C. § 8722(b)(1)).

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### Executive Director's Recommendation

The Commission:

**Approves** the concept design plans for the Anacostia Light Rail Transit project, as shown on NCPC Map File No. 3203.00(40.00)41441.

### Requests that future submissions for this project include:

- Additional information on the exact planned location for station platforms with information about pedestrian connections between the platform and the surrounding street network.
- More detailed information on pedestrian connections between the planned Anacostia light rail station and the existing Anacostia Metro station.
- More information about access and security discussions with the U.S. Air Force and the U.S. Navy regarding access between LRT and Navy and Air Force facilities along the alignment.
- Additional information on materials and colors to be used for station platforms, shelters, light standards, signage and site furniture.

- Information on the relationship of the yard and shop to the right-of-way line for South Capitol Street and on the intended Memorandum of Agreement (MOA) between WMATA and the District Department of Transportation regarding this issue.
- Additional detail on landscaping to be provided around the yard and shop complex.
- Additional information indicating existing and planned vehicle and pedestrian crossing points of the rail line.
- Additional information on fencing to be used along the right-of-way.

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## PROJECT DESCRIPTION

### Project Site

The project is located within the existing CSX Railroad right-of-way running along the east side of the Anacostia River just east of Anacostia Park. The portion of the right-of-way that will be used for the project lies between Bolling Air Force Base on the south and Pennsylvania Avenue, SE on the north. All project components, with the exception of the yard and shop, lie within the existing right-of-way. The yard and shop will be constructed adjacent to the rail alignment on federally owned land under the jurisdiction of the District of Columbia. The project includes six stop zones that will contain station platforms, shelters and related amenities; the Anacostia stop will provide an opportunity for passengers to transfer to and from Metrorail. The DIA stop will serve federal employers located along the east bank of the Anacostia River.

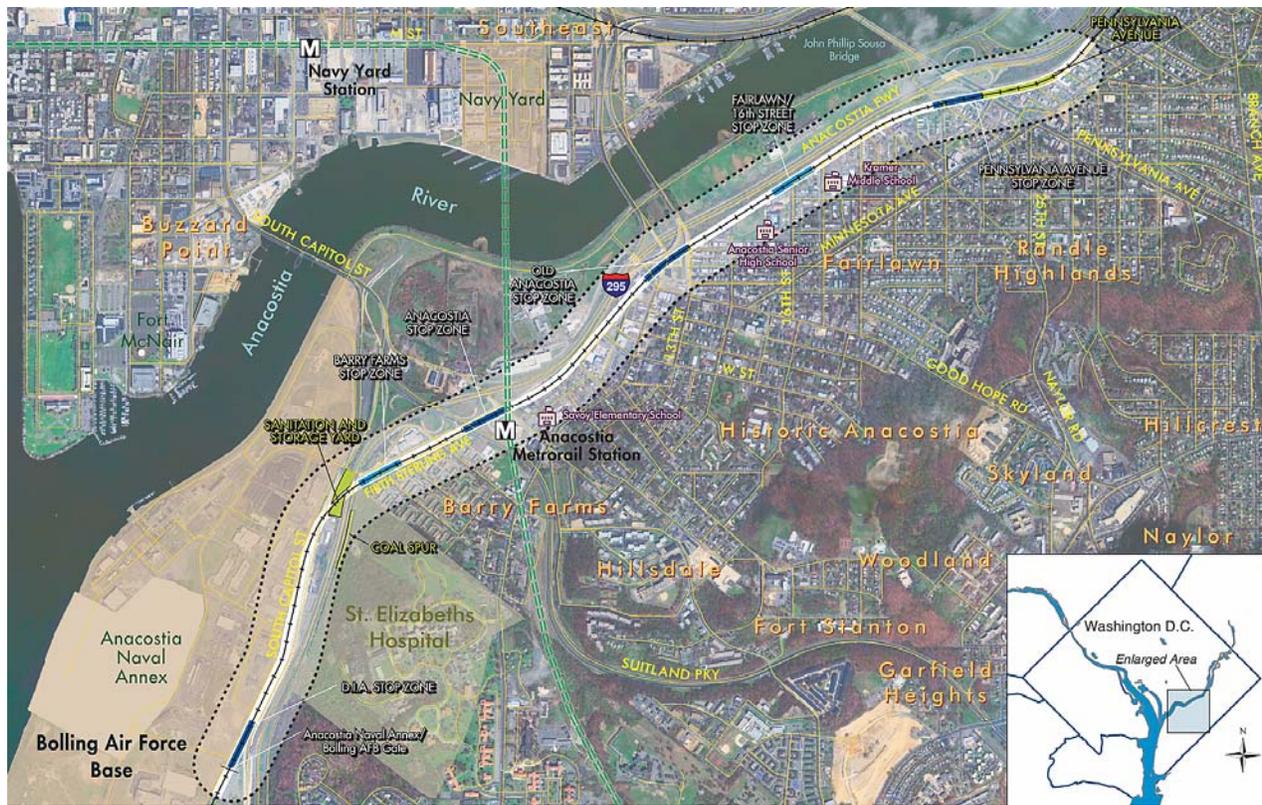
### Background

The District of Columbia government, through the District Department of Transportation (DDOT), is conducting an alternatives analysis to study surface transit improvements for several corridors in the District. The Anacostia Light Rail Transit (LRT), a demonstration project, will test the viability of LRT in the District of Columbia. Anacostia LRT is envisioned as the first phase of a potential city-wide light rail service that would complement Metrorail and Metrobus. Additionally, the project will support other District of Columbia initiatives including the Anacostia Waterfront Initiative and a future District of Columbia Government Gateway Center. The project will provide enhanced transit service for Anacostia neighborhoods, enabling residents to reach job centers including the Southeast Federal Center.

### Proposal

The applicant proposes to construct a 2.7 mile long light rail transit line with six stations. The stations will serve residential areas as well as employment centers along the line. The Washington Metropolitan Area Transit Authority (WMATA) will operate double-articulated, 45-foot-long light rail cars on the line, each with a capacity of 100 passengers per car. The project includes new track, overhead catenary wires suspended on 18 inch diameter poles, station platforms, shelters,

lighting, site furniture, signage and safety gates at grade-level road crossings. The project also includes a yard and shop facility and associated electrical equipment along the line.



**Project Site Overview**

The station platforms will be elevated to allow for ADA accessible boarding and alighting. Platforms will be constructed of reinforced concrete with surface colors and patterns designed to correspond with those in use at Metrorail stations. The contemporary platform shelters will be constructed of stainless steel and glass, corresponding to the new Metrorail station canopy design. Signage and site furniture will be incorporated into each platform.

The system will be powered from overhead catenary lines strung between Corten steel poles located 130 feet on center.

Six stations will be provided to serve the LRT system. Although the exact station locations have not yet been selected, the proposed station stop zones, from north to south, are as follows:

- Pennsylvania Avenue
- 16<sup>th</sup> Street/Fairlawn
- Old Anacostia
- Anacostia
- Barry Farms
- DIA



**Typical Light Rail Transit Vehicle**

*Rail Alignment*

The planned 2.7 mile rail alignment will be constructed within an existing CSX rail right-of-way. All of the LRT systems station platforms, shelters, catenary poles and overhead wires will be located within this right-of-way. The system will extend from approximately Pennsylvania Avenue, SE on the north to the main gate of the Anacostia Naval Annex/Bolling Air Force Base on the south. The alignment will contain six station stops.

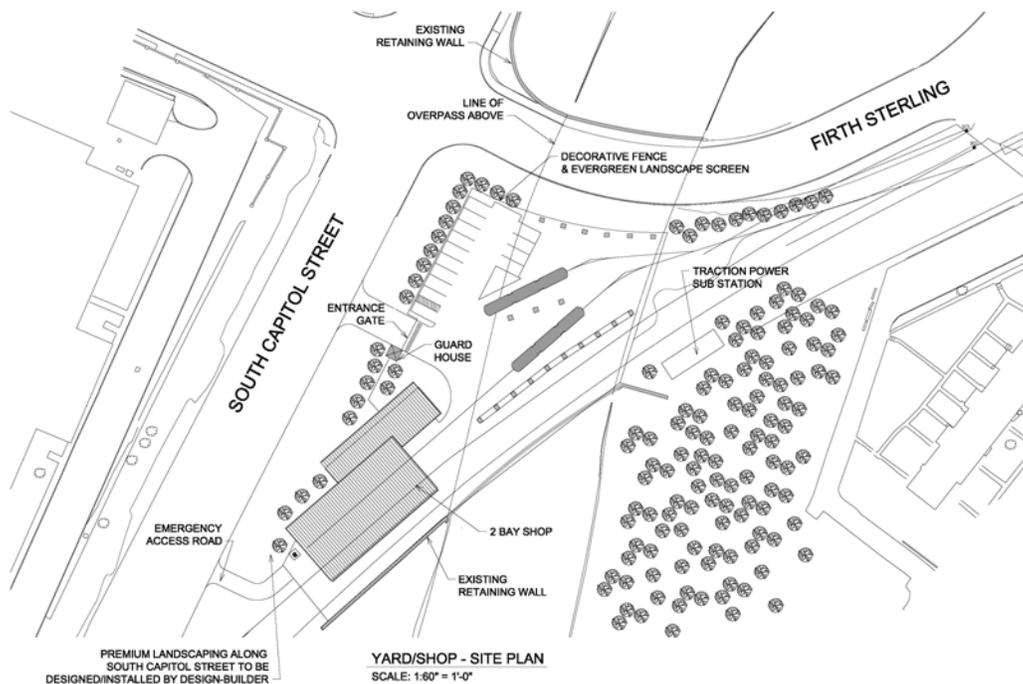
The LRT system's six stations will be located to serve adjacent neighborhood areas and employment centers. Additionally, one of the six stations will be constructed near the existing Anacostia Metrorail station, allowing passengers to transfer between LRT and Metrorail.



**Concept for Typical Station Platform, Shelter, and Lighting**

### *Yard and Shop*

The Yard and Shop site for the project sits just south of the intersection of Firth Sterling Road, SE and South Capitol Street, SE on federal property under the jurisdiction of the District of Columbia. The Yard and Shop facility will provide storage, maintenance and repair functions for the LRT cars. The proposal consists of a 2-bay shop building, a traction power substation, a storage yard for the 2-car train set, 14 surface parking spaces, a guard house, security fencing around the site, and associated landscaping. The current use of the land area for the yard and shop is open storage for the District Department of Transportation and the District Department of Public Works.



**Yard and Shop Site Plan**

### *Shop Building*

The prefabricated shop building will be clad in brick-faced concrete panels secured to a steel frame. The roof sections of the building will be constructed of standing-seam metal. Aluminum framed windows will contain tinted glazing. Three large bi-fold steel doors will allow train cars to enter and exit the building. The building interior will contain two train maintenance bays with associated work areas and service platforms, an administrative office, parts and tool storage areas and personnel support areas such as locker rooms and a break area. A large overhead bridge crane will transport materials along the bays. The building entrance will face South Capitol Street.



**View of Shop Building from South Capitol Street**

### *Catenary wires*

Then proposed LRT system will be powered from overhead catenary wires suspended between steel poles placed 130 feet on center along the entire length of the alignment. The poles and wires will be entirely contained within the existing CSX railroad right-of-way. A “trolley” connected to the top of each LRT car will make contact with the wires as the train passes below. In many cities around the world, such systems are successfully integrated into urban settings. The wires themselves are virtually impossible to distinguish from the surrounding urban environment, having little visual impact.

### *Landscaping*

The applicant’s proposal indicates that some landscaping will be provided around the perimeter of the yard and shop complex, but offers little detail on the type and extent of landscaping to be provided. As the project design develops, the applicant should ensure that adequate landscaping is provided to screen the yard and shop complex from surrounding development, in particular from South Capitol Street to the west.

### *Fencing*

Decorative black steel fencing is planned to surround the parking area of the yard and shop complex. The fencing and associated landscaping is indicated to act as screening from both Firth Sterling Road and South Capitol Street.

*Parking Area*

A surface parking area accommodating 14 cars will be situated to the north of the shop building, surrounded by a landscaped decorative fence. A guard house will control access to the parking area from South Capitol Street.



**Proposed Decorative Fencing and Guard House**

*Land Ownership*

The great majority of the project lies within an existing CSX Railroad right-of-way. This includes all the stations, the overhead catenary wires and supporting poles, and the majority of the track. A yard and shop will be constructed just west of the right-of-way on federally owned land south of Firth Sterling Road, SE. The jurisdiction over this land was transferred from the United States Government to the District of Columbia in 1961.



**Yard and Shop Site Location**

### *South Capitol Street*

The applicant indicates that a portion of the shop building at the yard and shop complex will intrude into the South Capitol Street right-of-way, but insufficient information has been provided to document this intrusion. Although the applicant indicates that WMATA will execute an MOA with the District Department of Transportation to allow this intrusion to occur, NCPC staff requests that the applicant provide graphic documentation of the degree of intrusion of the shop building upon the right-of-way.

### *Connection to Anacostia Metrorail Station*

One of the planned LRT system's stations is located to provide a connection to the existing Anacostia Metrorail station on Metro's Green Line. Insufficient information has been provided to allow staff to evaluate the exact proximity of the two stations to one another and the proposed walking conditions between stations. As the project design matures, staff requests that additional information on station area design be provided to allow staff to fully analyze the site conditions around the Anacostia LRT station and the Anacostia Metrorail station.

### *Coordination with Bolling Air Force Base on station siting and security issues*

The applicant has spend considerable time working with the federal government to ensure that access and security needs for the Navy, Air Force and other federal tenants at Bolling Air Force Base, Navy Annex, DIA have been incorporated into the project design. This coordination will continue as project design and construction proceed.

### *Access to Saint Elizabeths*

No access to the planned LRT system is envisioned from Saint Elizabeths, although the rail alignment runs along the complex's western perimeter. Access cannot be provided due to the need for the LRT system to remain within an existing rail right-of-way due to cost constraints and due to the undeveloped nature and difficult topography along this portion of the Saint Elizabeths campus.

## PROJECT ANALYSIS

### Executive Summary

The Anacostia Light Rail project will provide transit service improvements to District neighborhoods east of the Anacostia River as well as to federal facilities on both sides of the river. The light rail stations are likely to serve as catalysts for new commercial investment along streets surrounding the stations, serving both passengers and neighborhood residents. The system will be contained within an existing railroad right-of-way and so will have little if any physical impact on nearby residential areas. Light rail trains are smaller and quieter than the freight trains that once traversed this rail corridor, and the short duration of at-grade crossings should have little impact upon traffic on streets crossing the tracks. The light rail stations, with their small footprint and very simple architecture, will be compatible with the surrounding urban landscape.

## Issues

### *Rail Alignment*

The proposed LRT system will be placed almost entirely within the existing freight railroad right-of-way, having minimal impact upon surrounding streets and neighborhoods. No houses or other buildings will be displaced. Light Rail Transit uses smaller, lighter and much quieter cars than those employed in freight systems and delay for passenger vehicles at at-grade road crossings will be minimal, measured in seconds, rather than in minutes. The systems platforms, shelters, overhead wires and supporting poles, and all associated site furniture will be placed entirely within the existing right-of-way. Only the yard and shop will be constructed on land that is not currently occupied by CSX rail facilities. The yard and shop will be constructed on federally owned land under the jurisdiction of the District of Columbia. This land is currently used by the District Department of Public Works (DCDPW) as an open storage area, and is situated between Interstate 295 and South Capitol Street just south of Firth Sterling Road. The new LRT use of both the CSX right-of-way and the DCDPW open storage area should not adversely affect nearby neighboring residential and government uses. In fact, the planned LRT system will benefit neighboring residents and employers by providing improved transit service.

### *Passenger Platforms/Shelters*

The design of proposed passenger platforms and shelters for the LRT system can best be described as minimal. Each of the six stations will consist of a 75-foot-long reinforced concrete platform, positioned to allow ADA accessible boarding and alighting of trains. The platforms will be colored and patterned to coordinate with materials found within existing Metrorail stations to reinforce the concept of a single integrated transit system. Each platform will house a single 6-foot by 12-foot shelter with a simple, modern design, fabricated from glass and stainless steel. Each platform will also contain two light poles with associated signage and trash receptacles, as well as catenary wire poles at each end. The poles will be painted Metro brown. The minimalist design of station platforms will integrate them visually into the railroad right-of-way so that they are barely visible from surrounding areas. Once on the platform, passengers will find their familiar design elements to be compatible with the Metrorail system.

### *Yard and Shop*

Although the shop for the planned LRT system will be accommodated within a pre-engineered, pre-fabricated building, the exterior finishes of the building and the size and arrangement of its windows have been custom designed in response to the building's site. The building's exterior will be adorned with thin-cut brick fastened to precast concrete panels. The panels will appear to be of brick construction when the building is completed. The pattern of window openings has been redesigned in response to comments from the Commission of Fine Arts, resulting in a logical scale and an orderly progression of window openings along the building's façades. The building, although industrial in appearance, has been significantly improved from earlier designs. Additionally, site landscaping and decorative fencing will enhance the building's appearance, particularly when viewed from South Capitol Street.

### *South Capitol Street right-of-way*

The proposed yard and shop facility, as designed, would extend into the right-of-way for South Capitol Street, although not into the actual roadway. Because the constraints of the site are such that WMATA cannot relocate the shop building, WMATA intends to negotiate a memorandum of agreement with the District Department of Transportation to allow this intrusion into the right-of-way. Because this portion of South Capitol Street is outside of the central area and not part of the L'Enfant city, staff has no issues with the intrusion.

### *Station Area Plans*

As the station locations have not yet been set, the submittal package does not include information on station area design. Preliminary and final submissions should indicate pedestrian connections to stations from surrounding areas, locations of roadway crossing gates, and should indicate that stations have walkable connections to surrounding neighborhoods and the street and sidewalk grid. Of special importance is the area that connects the planned Anacostia LRT station to the existing Anacostia Metrorail station, between which a transfer is envisioned.

## CONFORMANCE

### National Environmental Policy Act

The Washington Metropolitan Area Transit Authority (WMATA) identified in its material provided to the District of Columbia that no federal funding is included in the final proposal, as submitted, and no other federal review of the Anacostia Corridor Demonstration Project is underway at this time. As part of the project planning process, the District of Columbia transportation consultants prepared an environmental assessment in compliance with the District of Columbia Environmental Policy Act and the National Environmental Policy Act. The Federal Transit Administration was originally the lead federal agency for the proposal but no longer is directing funding for the project.

The submission conforms to the Commission's Environmental Policies and Procedures, revised in April 2004, as a Categorical Exclusion on the basis of the applicant's compliance with the District's environmental review process and documenting the District agency considerations. Staff has reviewed the prepared environmental document and has determined no unique or unusual environmental conditions exist that would adversely impact the adjacent project area.

Several hazardous material sites exist near the project's rail alignment and may be affected by construction activities. The DC Department of Health, Environmental Health Administration, will review and implement its permitting and clean-up protocols for any potentially impacted locations in coordination with the District Department of Transportation. All site materials and contamination found to be present would be remediated and removed in accordance with all District and federal regulations to a managed disposal location outside the District of Columbia.

Potential pedestrian circulation crossing points exist in the environment of the rail alignment at only two locations. All grade crossing points that currently are identified in the design would be

signalized and pedestrian crossings would be included in the signal timings. At potential pedestrian conflict crossings, special precautions will be implemented to provide audible pedestrian signals and possibly illuminated crosswalks. Current crossing technology includes such items as manual gates that open toward the pedestrian, flashing signal lights with gates, audible warning sounds that are triggered by approaching rail vehicles, and channeling pedestrians through a “z” crossing that requires the user to face both directions along the track prior to crossing.

Traffic level of service for roadway vehicles within the road network of the project vicinity is projected to degrade at only two locations, Firth Sterling Avenue/Suitland Parkway and at Firth Sterling/Howard Road, in the afternoon traffic volume peak only. This result is the outcome of grade crossing delays during normal rail vehicle operations.

#### National Historic Preservation Act

Prior to submitting the concept design for this project to the Commission, the applicant reviewed the submission with the District of Columbia Historic Preservation Division (HPD) staff to identify possible historic resources that might be affected by the proposal. The conclusion was that no historic resources would be affected by the use of the existing rail right-of-way. The Anacostia Historic District, listed in the National Register almost 30 years ago, is near the rail line, but would not be affected by the project, which is fully contained within the right-of-way, with the exception of the yard and shop facility. Furthermore, the Historic District already receives protection from incompatible development, and compatible development would be welcomed. In addition, the rail right-of-way has already been disturbed, so there is little or no likelihood of a discovery of archaeological interest.

Staff had previously determined that the project was not subject to Section 106 review because there was no federal involvement in funds, property, or license. Recently, it was determined that the yard and shop facility is proposed to be built on federal land that was transferred from the U.S. Department of Health, Education and Welfare to the District of Columbia in 1961. Therefore, Section 106 review would be required. However, the land is adjacent to South Capitol Street, which is not part of the L’Enfant Plan in this location and is not listed in the National Register. NCPC will undertake the Section 106 responsibility in consultation with the District of Columbia Historic Preservation Office (DC SHPO) and will determine that this project would have no effect on historic resources.

#### Comprehensive Plan for the National Capital: Federal Elements

Staff has determined that this project is consistent with the *Comprehensive Plan for the National Capital: Federal Elements*.

The *Plan’s* Transportation Element policies encourage the development of new transit systems that will complement the region’s existing transit network, spur transit-oriented development and reduce dependence on the single-occupant automobile. Additionally, the Federal Workplace Element of the *Comprehensive Plan* encourages locating federal employment centers near transit stations. The development of Light Rail Transit in Anacostia will improve transit service to Bolling Air Force Base and other nearby federal employers, and will better connect District neighborhoods east of the Anacostia River to employment centers on both sides of the river and to the region beyond.

## COORDINATION

### Coordinating Committee

The Coordinating Committee reviewed this project on September 15, 2004 and forwarded the proposal to the Commission with the statement that the project has been coordinated with all agencies represented. The participating agencies were: NCPC, the District of Columbia Office of Planning; the District Department of Transportation; the District of Columbia Department of Housing and Community Development; the National Park Service; the General Services Administration; and the Washington Metropolitan Area Transit Authority.