

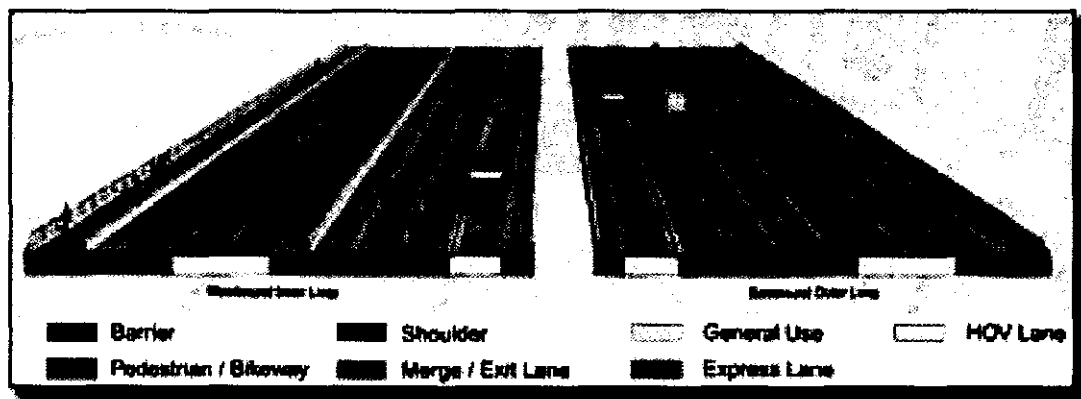
City of Alexandria, Virginia
MEMORANDUM

DATE: SEPTEMBER 12, 2006
TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL
FROM: JAMES K. HARTMANN, CITY MANAGER *J*
SUBJECT: RESOLUTION SUPPORTING THE DESIGNATION OF EXCLUSIVE TRANSIT LANES ON WOODROW WILSON BRIDGE

ISSUE: Consideration of a Council Resolution supporting the designation of two lanes on the new Woodrow Wilson Bridge for exclusive use by transit vehicles and completion of an alternatives analysis to identify the public transit alternative most appropriate for this corridor.

RECOMMENDATION: That City Council adopt the attached resolution supporting the designation of exclusive transit lanes on the reconstructed Woodrow Wilson Bridge and completion of an alternatives analysis for this transit corridor as was authorized by the 2005 six-year Federal transportation bill (49 USC 5309).

DISCUSSION: The reconstructed Woodrow Wilson Bridge will consist of twin parallel spans, one for the Inner Loop of the Capital Beltway and one for the Outer Loop. Each span will provide six travel lanes; four for general automobile traffic (the same number of lanes in each direction as the Beltway), one merge/diverge lane and the one remaining lane for either high-occupancy vehicle (HOV) automobile traffic, express bus/bus rapid transit, or rail transit. No final determination has been made on the permitted use of the two "remaining lanes" on the reconstructed bridge.



The bridge structures were designed and are being constructed to accommodate either HOV, bus transit or rail transit in the undesignated sixth lanes; however, the alternatives analysis study necessary to determine the appropriate type of transit service for this corridor and to qualify implementation of this transit service for possible federal funding have not yet been completed. Federal funding for an alternatives analysis study and preliminary engineering of a transit route across the reconstructed bridge was authorized in the 2005 Federal transportation reauthorization bill (SAFETEA-LU).

Concerned that additional delay in making a final determination on the permitted use of the undesignated lanes will unnecessarily delay initiation of transit in this corridor, increase the cost of implementation due to retrofit requirements and create public opposition to converting HOV lanes to dedicated transit lanes, groups such as the Sierra Club are proposing final designation of the sixth lane on each bridge span, initiation of the authorized alternatives analysis and preliminary engineering studies, and starting the process of securing federal funding for implementing rail transit in this corridor, and are seeking the support of local jurisdictions in this effort (see Attachment 1).

Staff recommends that the City of Alexandria support this effort by adopting the attached resolution calling for final designation of the sixth bridge lanes as transit lanes and initiation of the alternatives analysis study to determine the appropriate type transit service for this corridor. Appropriate type transit could range from dedicated bus lanes, to bus rapid transit, to light rail, to heavy rail (i.e., Metrorail). Designation of these lanes for dedicated public transit use will benefit the City by providing residents and workers with convenient and efficient transit service to and from Maryland, thereby reducing the impacts of regional travel on the City. Additionally, designation of these lanes for dedicated transit use is consistent with the proposal being developed by the Ad Hoc Transportation Task Force for dedicated transit corridors in Alexandria, which expressly calls for interconnection between a proposed corridor along Route 1 and a similar corridor crossing the Woodrow Wilson Bridge. Pending completion of the required alternatives analysis study, staff believes it would be premature to specify the type public transit service that would best serve this corridor.

FISCAL IMPACT: Adoption of this resolution will have no direct fiscal impact on the City of Alexandria. Depending on the type transit service ultimately established in this corridor, the City's future payments for transit capital and operations may increase.

ATTACHMENTS:

Attachment 1. Sierra Club Engineering and Design Fact Sheet
Attachment 2. Resolution

STAFF:

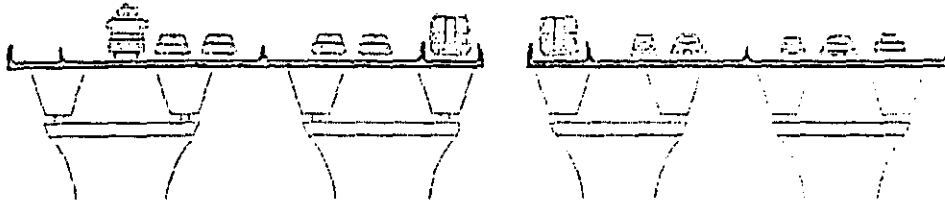
Richard J. Baier, P.E., Director, T&ES



Sierra Club Metro DC Healthy Communities Campaign

Engineering and Design:

- Designs for the new bridge feature twin parallel spans with six lanes each.
- Total of ten automobile lanes: eight general purpose automobile lanes, matching the number of lanes on the Beltway, plus two merge/diverge lanes connecting the adjacent Maryland and Virginia interchanges.
- Two lanes await a final designation as either HOV, Express Bus lanes, or rail transit lines.



New bridge spans engineered to accept rail, including the following critical elements:

- Bridge deck is rail-ready; Minimal alteration of the concrete bridge surface would be needed.
- Structural strength to support rail transit loads, as reflected in the large number and size of piles driven into riverbed to support the bridge deck.
- Drawbridge technology selected for its compatibility with rail transit.
- Wider space required for Metrorail's "footprint," related equipment controls and operation of trains.
- Space reserved in the drawbridge piers for future WMATA equipment
- Conduit in the drawbridge piers for future train controls, communications and traction power systems.

Sources: Meeting with WWB Project Team, April 27; FAST FACTS September 2002, "New Woodrow Wilson Bridge & Adjacent Interchanges: Rail Ready & Transit Friendly" (Woodrow Wilson Bridge Project)

Regional and Federal Transportation Agencies Planning for Rail

- WMATA includes proposed Metrorail expansion on the Woodrow Wilson Bridge, connecting to existing Metrorail lines in Virginia and Maryland, in its *Ten Year Capital Improvement Program* (Sept, 2002).
- The latest six-year Federal Transportation Bill authorizes funding for alternatives analysis and preliminary engineering of a transit route over the new Woodrow Wilson Bridge. (2005)

Next Steps:

- Local and regional transportation plans add rail on the Wilson Bridge connecting the Yellow and Green Lines.
- Cities and counties add rail on the bridge to their "wish lists."
- States request appropriation of authorized federal funds to move forward with alternatives analysis and a draft environmental impact study of options for rail on the bridge.

-This information is available online at www.SierraClub.org/metrodc -

PROPOSED RESOLUTION IN SUPPORT OF DESIGNATING EXCLUSIVE
TRANSIT LANES ON THE WOODROW WILSON BRIDGE

WHEREAS: In the Spring of 2000, Virginia, Maryland, the District of Columbia, and the federal government launched the Wilson Bridge Project to replace the aging original six-lane span; and

WHEREAS: In total, each of the twin spans of the new bridge will have six lanes for a total of twelve lanes, including

- Ten automobile lanes: eight general purpose automobile lanes, matching the number of lanes on the Beltway, plus two merge/diverge lanes connecting the adjacent Maryland and Virginia interchanges; and
- Two inner lanes of each bridge that await a designated mode; and

WHEREAS: The new bridge spans were designed and are being constructed to be “transit ready”; and

WHEREAS: Dedicated public transit on the Wilson Bridge will facilitate a new connection between Virginia and Maryland; and

WHEREAS: In its Ten Year Capital Improvement Program (Sept. 2002) the Washington Metropolitan Area Transit Authority included a proposed MetroRail expansion using the Woodrow Wilson to connect existing MetroRail lines in Virginia and Maryland; and

WHEREAS: Dedicated transit lanes will greatly increase the capacity of the bridge, provide Alexandria residents more transportation choices, help prepare for National Harbor traffic, and ease the traffic burden in adjacent Old Town Alexandria and other Beltway communities; and

WHEREAS: Investments that improve and expand our region’s world-class public transportation system provide ample returns by driving economic development in the existing developed areas of our region, and fostering greater transportation fuel efficiency that mitigates regional air pollution, curbs global warming gas emissions, and assures our communities a sounder financial footing in an era of rising energy costs; and

WHEREAS: under the 2005 six-year Federal transportation bill (49 USC 5309), the Federal Transit Administration’s New Starts Program authorizes funding for alternatives analysis and preliminary engineering of a transit route over the new Woodrow Wilson Bridge (HR 3-506, page 10, line number 259); and

WHEREAS: The authorization for federal funding expires in 2009.

THEREFORE, BE IT RESOLVED, that the Alexandria City Council supports designating the inner lane of each span of the new Woodrow Wilson Bridge for exclusive public transit use to improve connections between Virginia and Maryland, and supports efforts to secure federal funding to begin the Alternatives Analysis and other appropriate studies to begin the process.

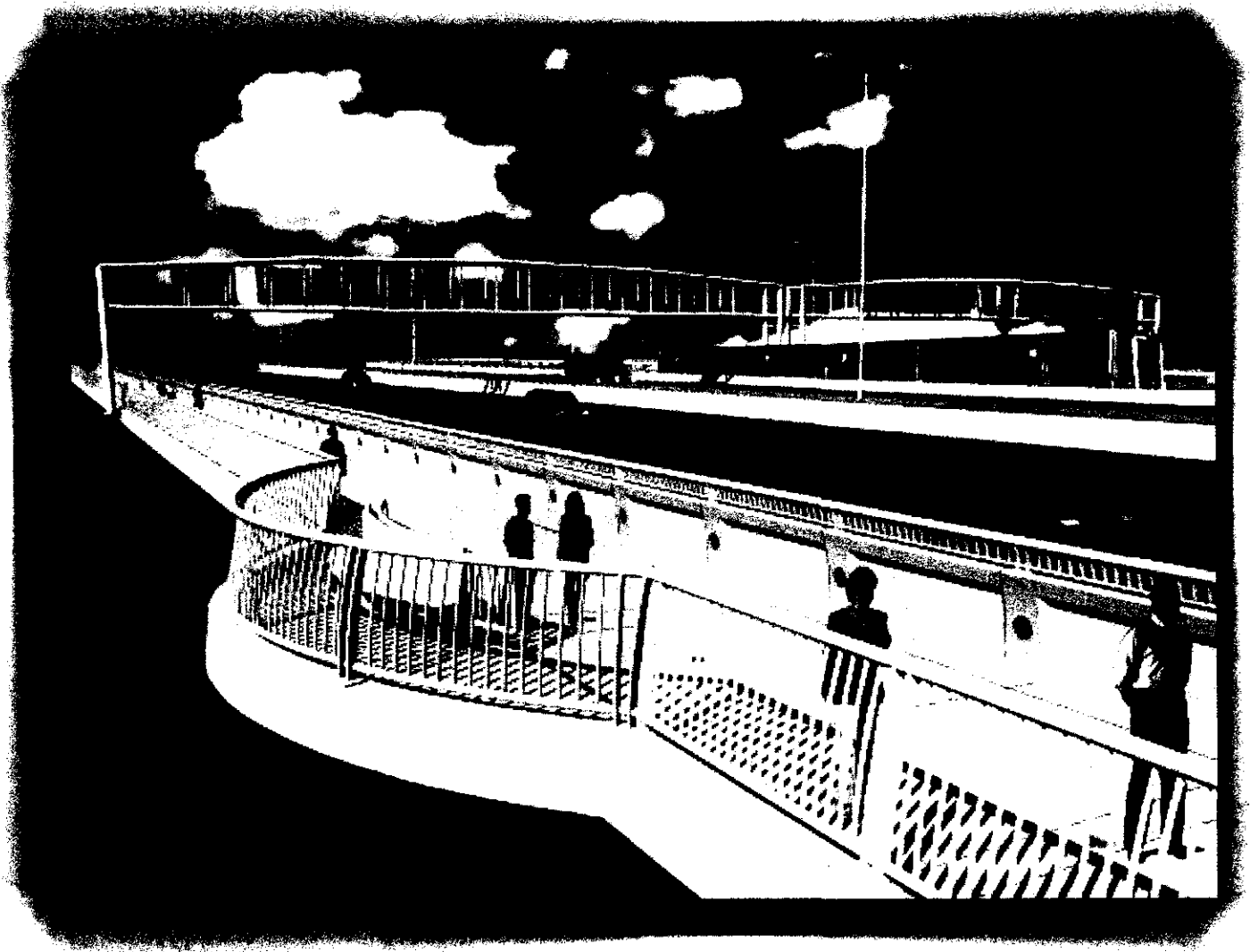
ADOPTED: _____

WILLIAM D. EUILLE, MAYOR

ATTEST:

Jackie M. Henderson, CMC, City Clerk

Metrorail on the Woodrow Wilson Bridge



As described in the Environmental Impact Statement Record of Decision for the Woodrow Wilson Bridge project, a 2¼ mile segment of the potential Metrorail alignment is fixed between a point west of I-295 in Maryland and a point east of US Route 1 in Virginia.

There are several alternative alignments in both Maryland and Virginia extending beyond the 2¼ mile fixed alignment segment. Preliminary Engineering and the National Environmental Protection Act (PE/NEPA) are required to evaluate these alternatives and determine the final alignment. Preliminary Engineering

establishes the basic alignment including property identification, plan and profile, station locations and architecture, and mitigation measures. The National Environmental Protection Act studies the environmental impact to the community and economic potential.

On a typical day in 1996, slightly more than 500,000 customers were riding Metrorail. By April of 2001, ridership had swelled to more than 655,000 daily customers. Also in April, ridership on the new Green Line extension to Branch Avenue reached 35,000 daily trips—a 60 percent increase compared to the 22,000 predicted for the five new stations when they were opened in January. Moreover, according to media accounts, less traffic has been observed on the Woodrow Wilson Bridge since the Green Line opening.

On March 25, 1999, the WMATA Board of Directors adopted the Transit Service Expansion Plan with

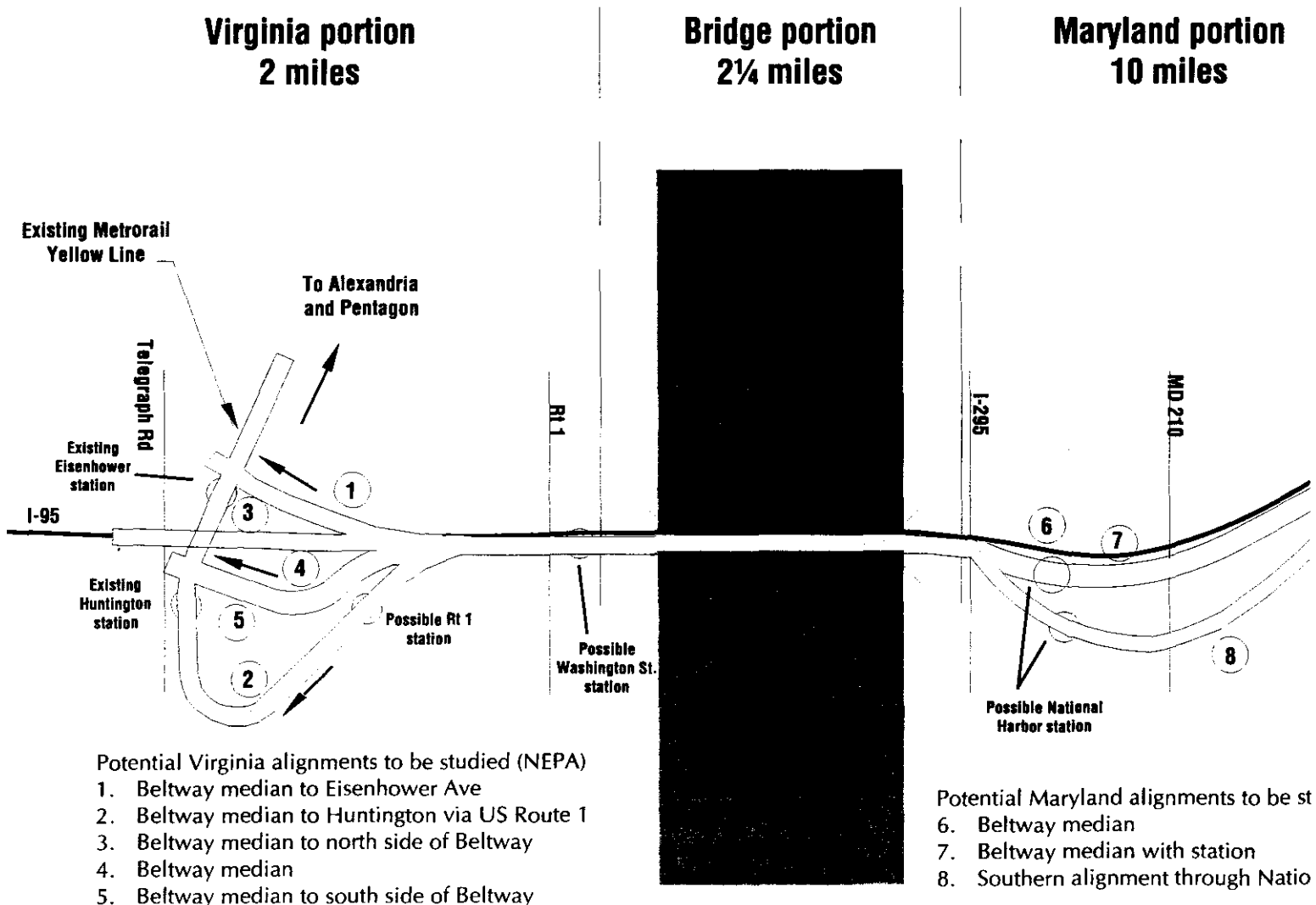
the primary goal to double ridership by 2025. This goal is based on providing an additional 50-60 miles of fixed guideway. One of the several projects identified in the plan: a Metrorail line on the Woodrow Wilson Bridge from Branch Avenue to Alexandria and beyond (see project #4 on map on back page).

Towards this goal, the Board approved this project to be studied as part of the annual Project Development Program and closely coordinated with the State of Maryland's ongoing beltway study and bridge design team. In addition to the engineering development

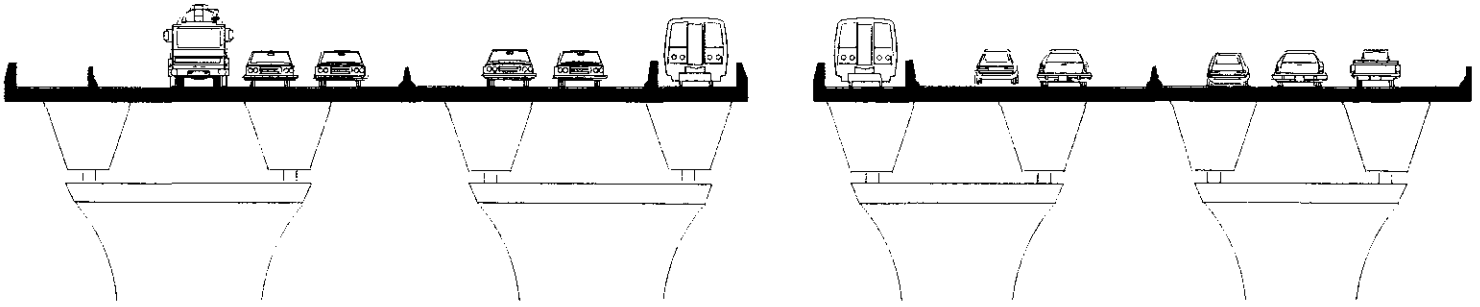
efforts, the Board requested coordination with all parties—state and local governments, Federal Highway Administration (FHWA) and the consultants—involved on the Woodrow Wilson Bridge construction project.

This potential Metrorail project is approximately 14 miles long—70% in Maryland, 14% in Virginia and the remaining 16% on the bridge. The project allows the opportunity for several Metrorail stations. These alternate station locations along with the alignment(s) variations are needed to complete preliminary engineering and environmental clearance planning to comply with PE/NEPA. The

Metrorail Yellow Line Extension between Branch Ave station and



Cross section of Woodrow Wilson Bridge with Metrorail



preliminary budget estimate for this rail project is between \$1.2 billion and \$1.5 billion depending on the selected alignment and number of stations and would require 7-10 years for implementation depending on funding.

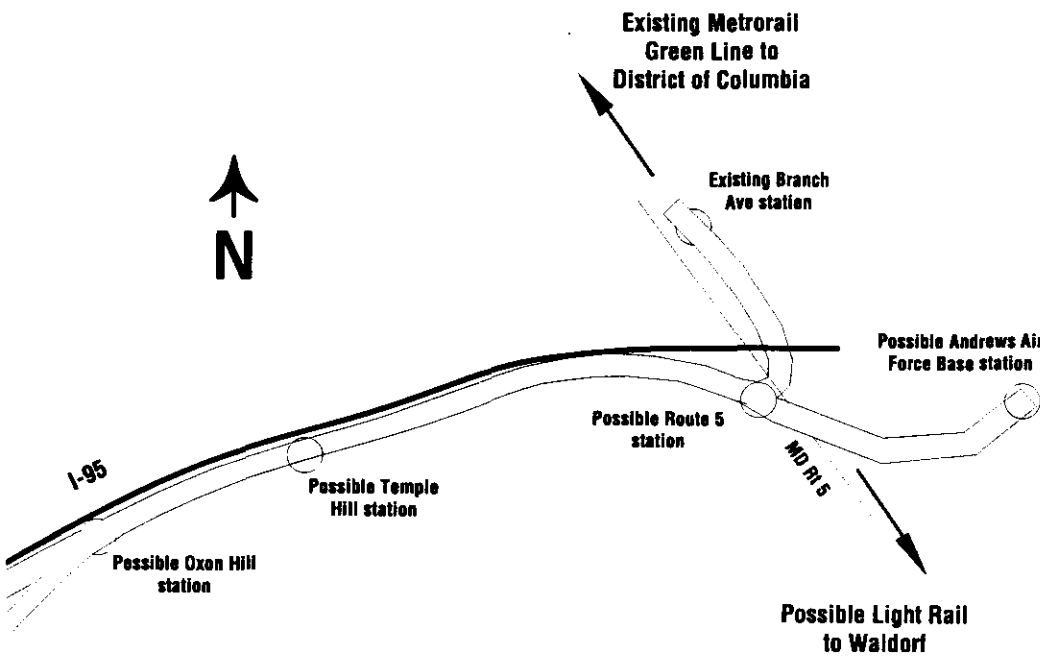
The state of Maryland, the

commonwealth of Virginia and the FHWA are finalizing the design of the bridge and issuing construction contracts. The design and construction plans currently do "not preclude" Metrorail. Now is the time to assure that Metrorail's approaches to the

bridge are "buildable" with respect to reasonable costs and minimum traffic disruptions. There are three investment commitments which need to be made in order to accomplish this. The timing of these investments is particularly important due to the planned construction schedule for the Woodrow Wilson Bridge project. Towards making these commitments, the following funding is needed:

- Complete PE/NEPA which will evaluate the alternative transit alignments that exist in both Maryland and Virginia as required by Federal laws.
- Design and construct critical elements on the bridge to ensure that the bridge is "Metrorail-ready" when completed. Those elements include barrier bridge deck, separate Metrorail drainage system built into the deck, track ready anchors in bridge deck and support facilities for train control, communications and traction power systems. This does not require PE/NEPA evaluation.
- Plan, lay out, design and partially construct critical Metrorail foundation structures to be accomplished as part of the 2003 planned US Route 1 interchange construction in Virginia to minimize future costs and traffic disruption (subject to completion of a PE/NEPA study).

Eisenhower Ave or Huntington station



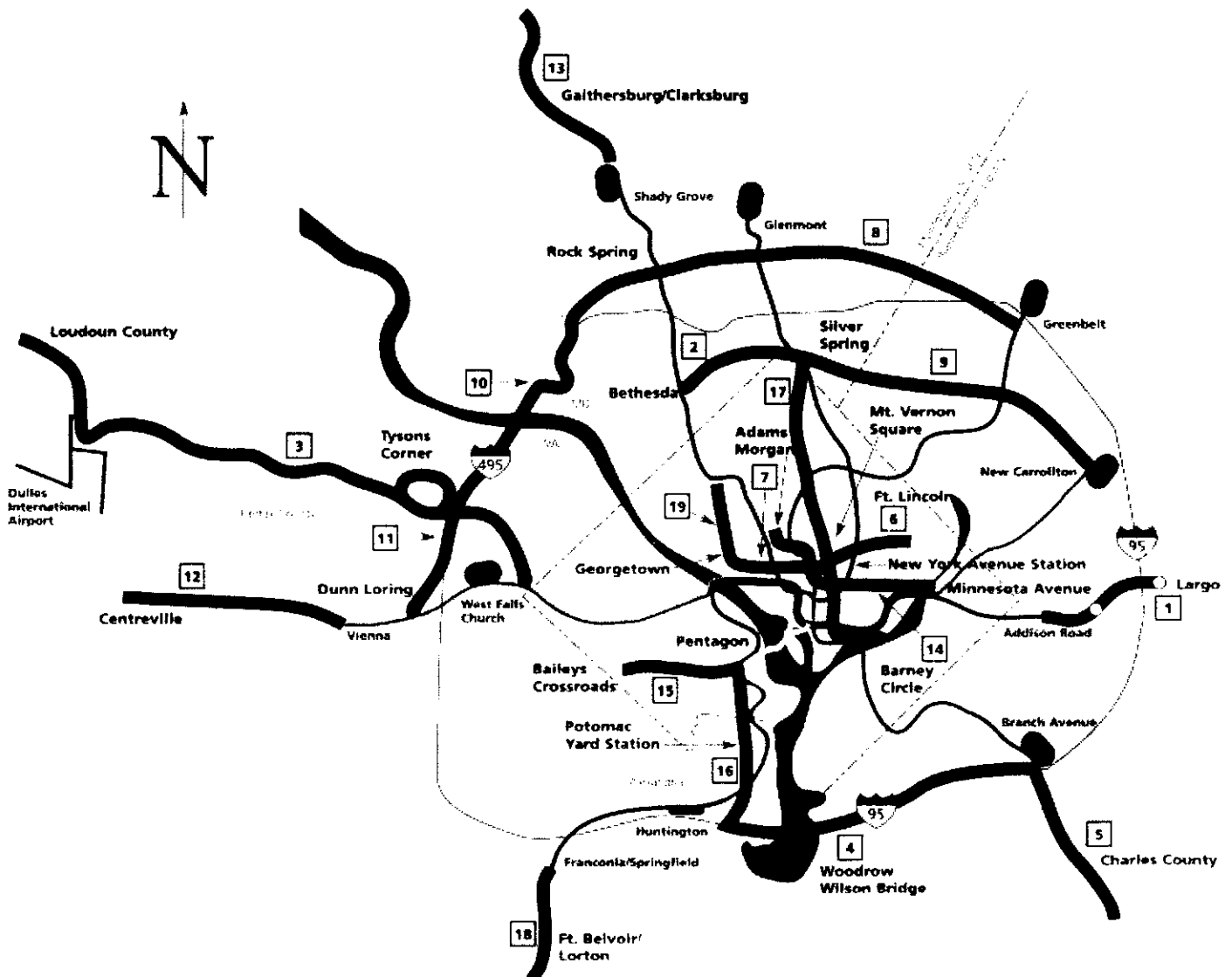
ed (NEPA)

Harbor with station

Schedule for Metrorail on the Woodrow Wilson Bridge

ESTIMATED DURATION (months)	PHASE
10 - 15	Community Review/Project Development/Alternative Analysis of potential alignments and stations
24 - 36	Environmental Clearance (NEPA) and Preliminary Engineering
12 - 18	Funding and Final Design
48 - 60	Construction

WMATA Transit Service Expansion Plan adopted March 25, 1999





Sierra Club Metro DC Healthy Communities Campaign

Fact Sheet: Rail on the Woodrow Wilson Bridge

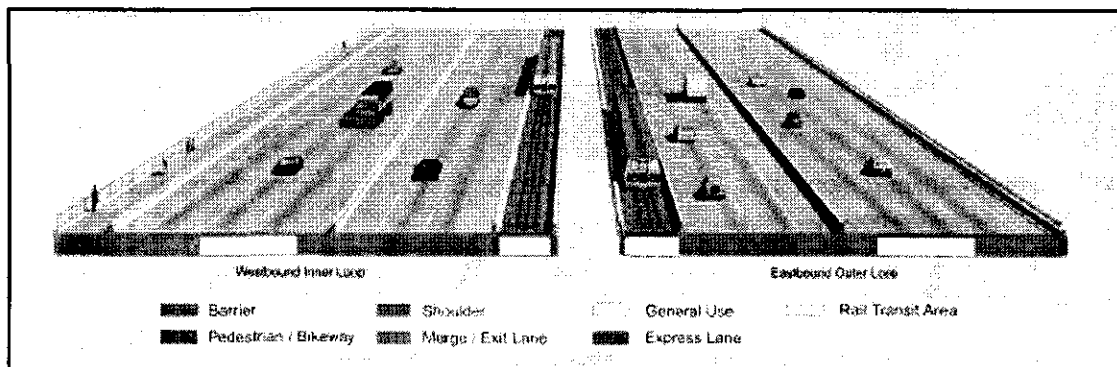
- Spring 2000: DC, MD, VA, and federal government launch Woodrow Wilson Bridge construction; decision on rail deferred.
- Summer 2005: Federal Transportation bill authorizes funding for preliminary engineering for rail on bridge to connect Yellow Line in Virginia to Green Line in Maryland. Authorization expires in 2009.
- Fall 2006: The new bridge has been engineered for rail, but the inner lanes of each bridge span still await designation as HOV, Express Bus, or Rail Transit.
- Time to line up funding for preliminary engineering, plans for rail on WWB.

The Region Needs Rail on the Wilson Bridge

- Rail on the Wilson Bridge would connect the Yellow Line in Virginia (at either the Eisenhower Ave or Huntington Metro Stations) to the Green Line in Maryland at the Branch Ave Metro Station.
- **Adding rail would double the capacity of the bridge.** Two lanes of rail have at least the same capacity as an entire twelve lane highway.
- **Rail would provide local commuters more choices.** 95,000 Prince George's residents commute across the Wilson Bridge every day. Thousands of Virginians make the opposite trek. Adding highway lanes without rail transit leaves these commuters without a choice: they will all drive, further congesting our roadways.
- **Rail helps prepare for National Harbor traffic:** Construction has begun on the National Harbor hotel/convention center complex. Rail is vital to accommodate increase traffic associated with the development's planned 2,500 residential units, 4,000 hotel rooms, a convention center, and 1.5 million square feet of office, retail, dining, and entertainment.
- **Rail would help ease traffic burden on Old Town Alexandria:** One highway lane from the new bridge will continue to dump its traffic directly onto Patrick Street (Route 1), which is already at capacity.
- **Rail helps prepare Eastern Fairfax County for Department of Defense realignments:** With recent BRAC (Department of Defense) office realignments, thousands of federal and government contractor jobs will shift from Arlington south to Fort Belvoir, straining an already overburdened road network. Rail on the Wilson Bridge ties into proposed transit connections to Ft. Belvoir.

Bridge Construction Timeline

- First span of bridge is now open with six general purpose highway lanes; traffic from the six lanes of the old bridge has shifted to the new span. The old bridge is being deconstructed demolished, construction is to begin on the second span.
- Second span construction is expected to finish in the middle of 2008.



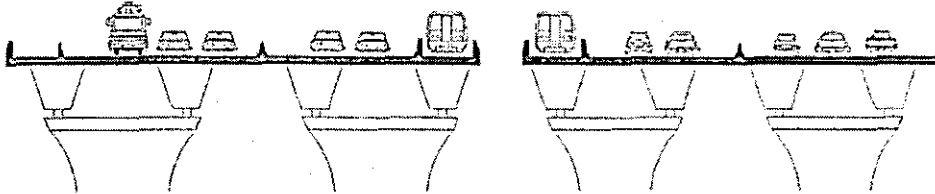
Graphic from <http://www.wilsonbridge.com/po-projectDescription2.htm>



Sierra Club Metro DC Healthy Communities Campaign

Engineering and Design:

- Designs for the new bridge feature twin parallel spans with six lanes each.
- Total of ten automobile lanes: eight general purpose automobile lanes, matching the number of lanes on the Beltway, plus two merge/diverge lanes connecting the adjacent Maryland and Virginia interchanges.
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- Drawbridge technology selected for its compatibility with rail transit.
- Wider space required for Metrorail's "footprint," related equipment controls and operation of trains.
- Space reserved in the drawbridge piers for future WMATA equipment
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Regional and Federal Transportation Agencies Planning for Rail

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May 2006

New Bridge & Interchanges: *Rail Ready & Transit Friendly*

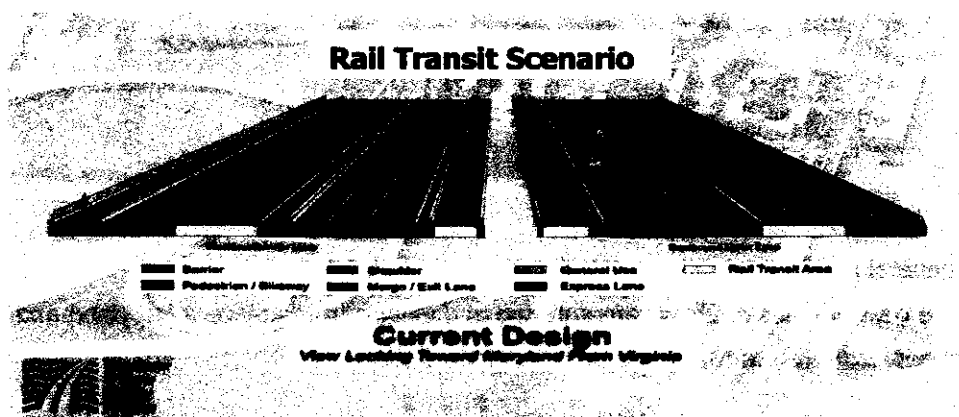
A Transit-Friendly Project

- Enabling potential future implementation of rail transit is a high priority of the Wilson Bridge Project.
- Project leaders met more than 20 times in recent years with representatives of the Washington Metropolitan Area Transit Authority (WMATA) to ensure the bridge and interchanges are designed and constructed with the flexibility to accommodate rail alternatives.
- The close partnership and coordination has resulted in a design recognized by WMATA as "Metrorail ready."
- The interchanges at U.S. Route 1 (Virginia) and I-295 (Maryland) are designed around an "envelope" into which rail transit connections can be built. Deferral of HOV/Express Bus interchange ramp construction further simplifies potential construction of rail connections.

Details of a Rail-Ready Design

- To ensure rail readiness, the following elements are incorporated into the new bridge's design:
- A local/express lane configuration throughout the Project corridor, which can provide a future barrier separation between highway and rail traffic. This physical separation would allow implementation and ongoing maintenance of potential rail transit lanes without completely disrupting highway traffic.
- Structural strength to support heavier rail transit loads, reflected in the large number and size of piles driven into the riverbed to support the bridge deck.
- Wider space required for Metrorail's "footprint," related equipment controls and operation of trains.
- Space reserved in the drawbridge piers for future WMATA equipment
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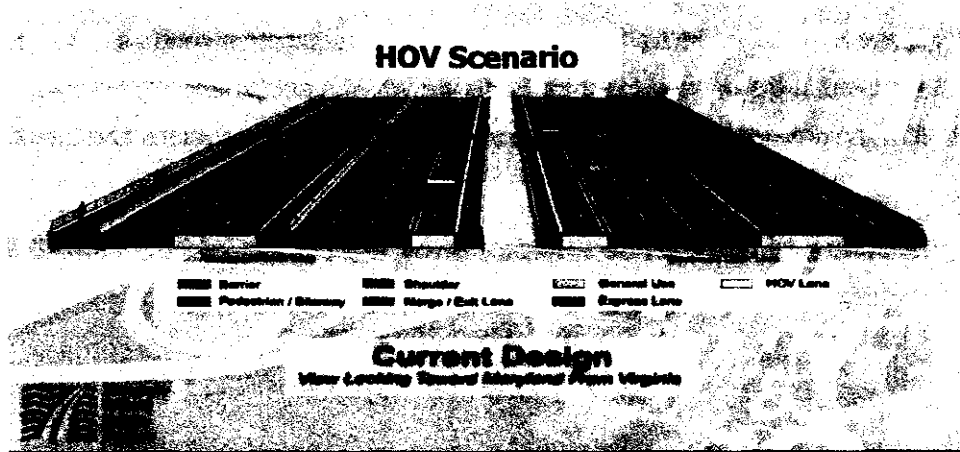
Drawing of New Wilson Bridge Showing Potential Future Rail Service



Transit Implementation

- While implementing rail transit within the Project corridor is beyond the scope of the Wilson Bridge Project, the Project's design remains flexible to accommodate rail transit, as well as HOV or express bus service.
- The decision of whether to install rail transit in the Wilson Bridge corridor rests with federal, state and local jurisdictions. Before rail transit could be implemented, a great deal of study and engineering of potential rail alternatives is required by federal law and regulation.
- Rail service in the bridge corridor (from Branch Avenue in Maryland to Alexandria, Virginia) is included in WMATA's 2025 Transit Service Expansion Plan. Approved by the WMATA Board, this initiative is being studied under the annual Project Development Program and closely coordinated with all related parties, including Federal Transit Administration, and state and local governments.
- WMATA's order of magnitude cost estimates of a connection between Yellow/Blue Line in Virginia with the Green Line in Maryland range from \$1.2 billion and \$1.5 billion, depending on the selected alignment and number of stations (current plans estimate up to seven potential stations).
- The Washington region's financially constrained long-range transportation plan through 2025, which requires identification of funding sources for projects, does not include rail transit across the new Wilson Bridge. At this time, potential funding sources have not been identified.
- A joint Virginia Department of Transportation (lead) and Maryland State Highway Administration mobility study between the Springfield Interchange and Branch Avenue (including the Wilson Bridge) has begun and will be completed in two phases over an 18 month period (mid-2007).

Drawing of New Wilson Bridge Showing Potential Future HOV Service



- 8 general purpose lanes to match the existing Capital Beltway
- 2 merge/exit lanes to allow safe entering and exiting from adjacent Maryland and Virginia interchanges
- 2 lanes dedicated to future rail transit or HOV option

#

RESOLUTION NO. 2204

WHEREAS, in the Spring of 2000, Virginia, Maryland, the District of Columbia, and the federal government launched the Wilson Bridge Project to replace the aging original six-lane span; and

WHEREAS, in total, each of the twin spans of the new bridge will have six lanes for a total of twelve lanes, including

- Ten automobile lanes: eight general purpose automobile lanes, matching the number of lanes on the Beltway, plus two merge/diverge lanes connecting the adjacent Maryland and Virginia interchanges; and
- Two inner lanes of each bridge that await a designated mode; and

WHEREAS, the new bridge spans were designed and are being constructed to be "transit ready"; and

WHEREAS, dedicated public transit on the Wilson Bridge will facilitate a new connection between Virginia and Maryland; and

WHEREAS, in its Ten Year Capital Improvement Program (Sept. 2002) the Washington Metropolitan Area Transit Authority included a proposed MetroRail expansion using the Woodrow Wilson to connect existing MetroRail lines in Virginia and Maryland; and

WHEREAS, dedicated transit lanes will greatly increase the capacity of the bridge, provide Alexandria residents more transportation choices, help prepare for National Harbor traffic, and ease the traffic burden in adjacent Old Town Alexandria and other Beltway communities; and


WHEREAS, investments that improve and expand our region's world-class public transportation system provide ample returns by driving economic development in the existing developed areas of our region, and fostering greater transportation fuel efficiency that mitigates regional air pollution, curbs global warming gas emissions, and assures our communities a sounder financial footing in an era of rising energy costs; and

WHEREAS, under the 2005 six-year Federal transportation bill (49 USC 5309), the Federal Transit Administration's New Starts Program authorizes funding for alternatives analysis and preliminary engineering of a transit route over the new Woodrow Wilson Bridge (HR 3-506, page 10, line number 259); and

WHEREAS, the authorization for federal funding expires in 2009.

THEREFORE, BE IT RESOLVED, that the Alexandria City Council supports designating the inner lane of each span of the new Woodrow Wilson Bridge for exclusive public transit use to improve connections between Virginia and Maryland, and supports efforts to secure federal funding to begin the Alternatives Analysis and other appropriate studies to begin the process.

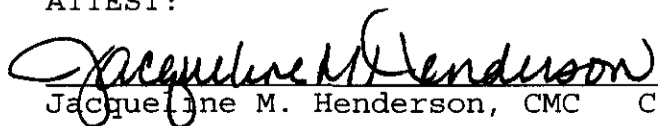
ADOPTED: September 26, 2006



WILLIAM D. EUILLE

MAYOR

ATTEST:



Jacqueline M. Henderson, CMC City Clerk