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(240) 777-7226

Montgomery County

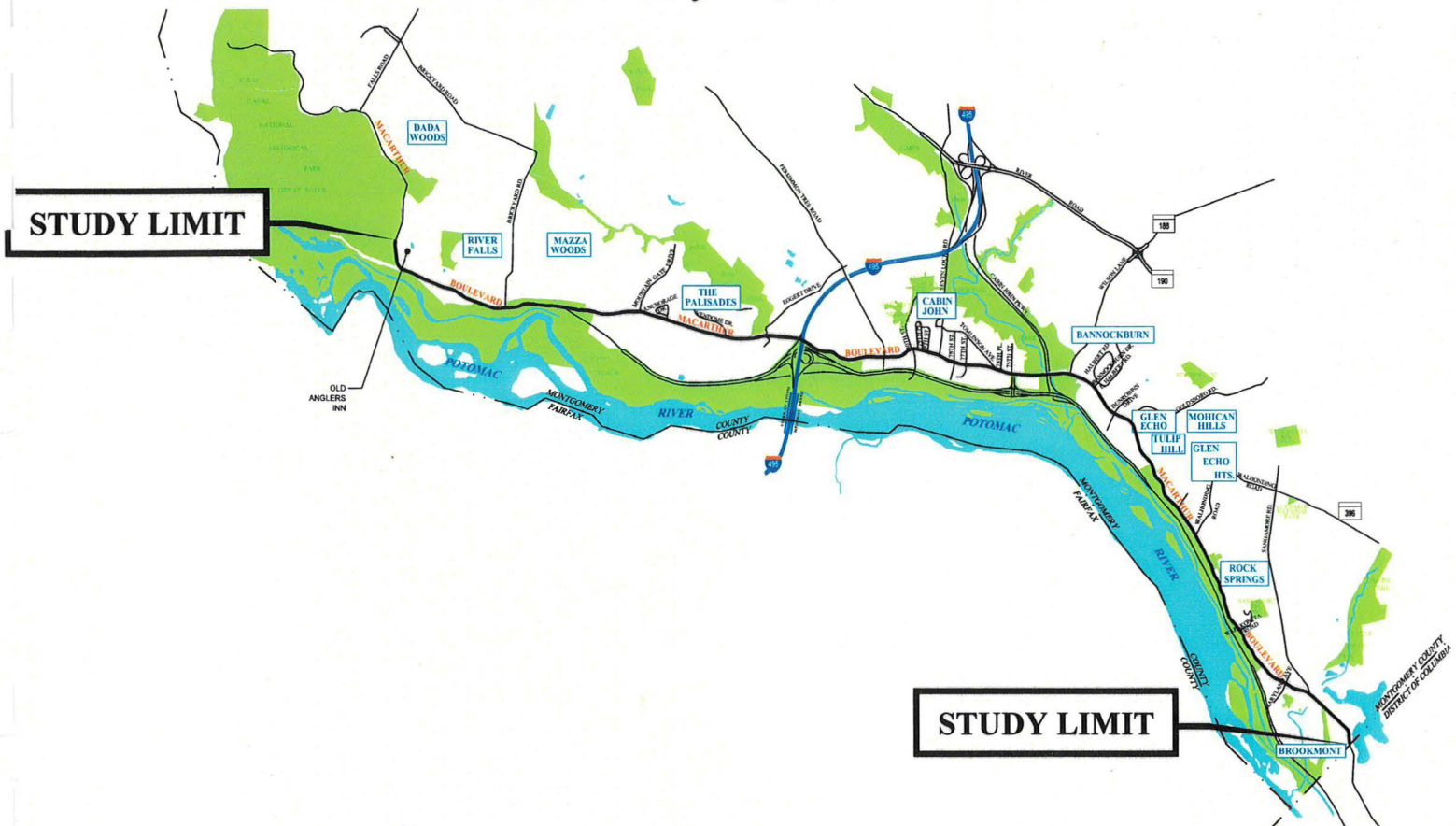
Department of Public Works and Transportation

MacArthur Boulevard Bike Path / Lane Improvements

Phase I Facility Planning Study

Final Project Prospectus

February 17, 2004



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Recommendations for Phase II Facility Planning

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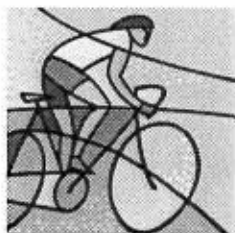
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S **TUDY TEAM MEMBERS**

The Study Team consisted of the following organizations and individuals:

Montgomery County Division of Capital Development

Bruce Johnston, Chief, Division of Capital Development
Holger Serrano, Engineering Services Specialist
Yasamin Esmaili, Project Manager
Gail Tait-Nouri, County Bikeway Coordinator
David Adams, Traffic Engineer
Bob Simpson, Director's Office
Pat Bradley, Traffic Engineer, Traffic and Parking Services Division

Maryland National Capital Parks and Planning Commission (M-NCPPC)

Ki Kim, Community-Based Planner
Callum Murray, Community-Based Planner
Chuck Kines, Bikeway Coordinator
Larry Cole, Transportation Manager
John Carter, Community-Based Planner

US Army Corps of Engineers (ACOE)

David MacGregor, Chief Engineer
Nathan Cole, Project Engineer

National Park Service Chesapeake and Ohio Canal National Historical Park (NPS)

Kevin Brandt, Park Superintendent
Alex Negron, Park Ranger
Ryan Peabody, Park Ranger

URS Corporation

Janie Tiedeman, Project Manager
Valorie Hennigan, Project Planner





**RECOMMENDATIONS FOR
PHASE II
FACILITY PLANNING**

THE UNIVERSITY OF CHICAGO
PRESS
CHICAGO, ILLINOIS 60607




MONTGOMERY COUNTY COUNCIL
ROCKVILLE, MARYLAND



MEMORANDUM

January 16, 2004

TO: Albert J. Genetti, Jr., Director
Department of Public Works and Transportation

FROM:  Nancy Floreen, Chair
Transportation and Environment Committee

SUBJECT: MacArthur Boulevard Hiker/Biker Trail

On December 4, 2003 and January 15, 2004 the T&E Committee reviewed the results of Phase I facility planning for the MacArthur Boulevard Hiker/Biker Trail project. The Committee concurs with DPWT and the Planning Board in carrying the following alternative into Phase II:

- Provide a continuous 8'-wide hiker-biker path and, generally, at least a 5' offset from the edge of the roadway, and a barrier between the path and roadway where 5' is not available.
- Widen MacArthur Boulevard by 4' (to 26') to provide two 10'-wide travel lanes a 3'-wide striped shoulder on each side.

In addition, Phase II should include the following evaluations:

- Prepare preliminary designs for the other spot improvements noted in the prospectus.
- Evaluate the Planning staff's concerns regarding bus stops and pedestrian crossings, lighting, signing, and environmental impacts.
- Examine further means beyond striping to emphasize the demarcation between the travel lanes and the shoulders.
- Divide the project into two or three logical segments, giving the Council the opportunity to consider breaking what is likely to be a costly bikeway improvement into separate funding stages.

The Committee appreciates the work the Department of Public Works and Transportation has completed to date, and we look forward to the completion of Phase II by early next year so that we can consider the project for funding as an amendment to the FY 2005-2010 CIP.

cc: Councilmembers
Derick Berlage, Chair, Montgomery County Planning Board

STELLA B. WERNER COUNCIL OFFICE BUILDING, 100 MARYLAND AVENUE, ROCKVILLE, MARYLAND 20850
240/777-7900 TTY 240/777-7914 FAX 240/777-7989
WWW.CO.MD.US/COUNCIL



Douglas M. Duncan
County Executive

DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Albert J. Genetti, Jr., P.E.
Director

MEMORANDUM

November 26, 2003

TO: Edgar A. Gonzalez, Deputy Director for Transportation Policy
Director's Office
Department of Public Works and Transportation

VIA: Holger O. Serrano, Engineering Services Specialist
Division of Capital Development
Department of Public Works and Transportation

FROM: Yasamin K. Esmaili, Phase I Project Manager
Division of Capital Development, Design Section
Department of Public Works and Transportation

SUBJECT: Addendum to MacArthur Blvd. Bikeway Improvements – Project Prospectus
C.I.P. No. 509337

Addendum to
MacArthur Blvd. Bikeway Improvements
November 2003

The purpose of this addendum is to provide the list of recommended items to be studied in Phase II for the MacArthur Blvd. Bikeway Improvements (the recommended alternative), as discussed with the Deputy Director at the November 14, 2003, project presentation meeting. The following is the agreed list of recommendations.

- **Take periodic measurements**
Perform field surveys along the length of the study area to measure the exact width of the existing pavement.
- Widen the existing paving to provide 26 feet of paving (2 – 10-foot lanes and 2 – 3-foot shoulders) whenever reasonable in order to accommodate the needs of on-road commuter bicyclist **and experienced**
- Coordinate with traffic to reduce the speed limit, specifically, in the areas with a high rate of accidents, **as shown in the document.**

YKE:dbb



**MONTGOMERY COUNTY
DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION
COMMENTS ON RECOMMENDATIONS**

THE UNIVERSITY OF CHICAGO
LIBRARY
540 EAST 57TH STREET
CHICAGO, ILL. 60637



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

MEMORANDUM

October 6, 2003

TO: Al Roshdich, Chief
Division of Operations

FROM: Holger Serrano, Engineering Services Specialist
Division of Capital Development

SUBJECT: MacArthur Blvd Bikeway Improvements
Phase I Facility Planning – Prospectus Sign-Off
Project No. 509337

I am pleased to submit the Project Prospectus for the MacArthur Bike-Path Improvements, Phase I Facility Planning Study. It is the result of several months of internal collaboration between DPWT and staff from other agencies including: M-NCPPC, ACOE, NPS. This Memorandum will serve as the final sign-off for the DPWT divisions. Concurrence with the content of this Memorandum will formally transition the project from Phase I to Phase II Transportation Facility Planning and, consequently, the project lead from the Division of Capital Development, Planning Section to the Division of Capital Development, Design Section.

The Phase I Study Team recommends Alternative 2, consisting of the following:

- Upgrading the existing shared-use path using AASHTO guidelines including a minimum five-foot open space separation where possible and physical barrier where required
- Improving the overall safety of the shared-use path by adding signing and pavement marking, lane designation, vehicular and bikeway approach and caution signs
- Improving connectivity between the Macarthur Boulevard shared use path and other bikeways and paths within the Potomac sub-region and Bethesda-Chevy Chase planning areas, including a direct connection to the Little Falls shared-use path, and the historical Canal tow-path.



Division of Capital Development

Al Roshdich
October 6, 2003
Page 2

In addition, spot improvements will improve deficiencies and immediate safety concerns on Macarthur Boulevard at Old Anglers Inn, Clara Barton Parkway, I-495, Tomlinson Avenue, Ericssen Road, Wilson lane and Union Station Arch Bridge, Walholing Road, Sangamore Road and, finally, at Winward Drive. For more details, please see the Executive Summary of Project Prospectus.


Please review the attached copy of the Prospectus and send your review comments or approval by October 27, 2003.

Thank you for your assistance. If you have any questions, please contact one of the team members as listed or Yasamin Esmaili at 240-777-7226.

YKE:dbb

Enclosure

By signature below, I concur with the recommendations of the October 2003 Macarthur Blvd Bikeway Improvements Phase I Project Prospectus.



Al Roshdich, Chief
Division of Operations
Department of Public Works and Transportation

11-4-03
Date



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

MEMORANDUM

October 7, 2003

TO: Daniel K. Hardy, Master Planner-Flash Supervisor
Maryland-National Capital Park and Planning Commission (M-NCPPC)

FROM: Yasamin Esmaili, Project Manager
Division of Capital Development, Design Section *Y.K.E.*
Department of Public Works and Transportation

SUBJECT: MacArthur Blvd. Bikeway Improvements – Final Prospectus
C.I.P. No. 509337

Enclosed is the final Project Prospectus for MacArthur Blvd. Bikeway Improvements. We are hereby requesting a written formal recommendation from the Planning Board.

The draft of this project prospectus has been reviewed by our team members, Mr. Ki Kim and Mr. Chuck Kines of M-NCPPC, and their comments have been incorporated into the final project prospectus.

Please let me know when the project will be scheduled to be presented to Planning Board. If you have any question or additional information please contact me at 240-777-7226.

YKE:dbb

cc: Richard Hawthorne w/o enclosure, M-NCPPC

Enclosure





DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

MEMORANDUM

November 7, 2003

RECEIVED

NOV 10 2003

TO: Holger O. Serrano, Engineering Services Specialist
Division of Capital Development

MCPWT CAPITAL DEVELOPMENT

FROM: Emil J. Wolanin, Chief *EJW*
Traffic Engineering and Operations Section

SUBJECT: MacArthur Boulevard Bikeway Improvements Prospectus

Attached, please find a copy of the memo indicating the concurrence of the Division of Operations on the Project Prospectus.

Please feel free to contact Pat Bradley at x-72160 if you have any questions.

EJW/je

Attachment

Wp/wolane/l&m/032614



Division of Operations



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

MEMORANDUM

October 6, 2003

TO: Bruce E. Johnston, Chief
Division of Capital Development

FROM: Holger Serrano, Engineering Services Specialist
Division of Capital Development

SUBJECT: MacArthur Blvd Bikeway Improvements
Phase I Facility Planning – Prospectus Sign-Off
Project No. 509337

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Division of Capital Development

Bruce E. Johnston
October 6, 2003
Page 2

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Please review the attached copy of the Prospectus and send your review comments or approval by October 27, 2003.

Thank you for your assistance. If you have any questions, please contact one of the team members as listed or Yasamin Esmaili at 240-777-7226.

YKE:dbb

Enclosure

By signature below, I concur with the recommendations of the October 2003 Macarthur Blvd Bikeway Improvements Phase I Project Prospectus.



Bruce E. Johnston, P.E., Chief
Division of Capital Development
Department of Public Works and Transportation

1/26/04
Date

Study Team Members

Montgomery County Department of Public Works and Transportation (DPWT)

| | | |
|-------------|--|--------------|
| Bob Simpson | | 240-777-7193 |
|-------------|--|--------------|

Montgomery County DPWT, Division of Capital Development (DCD)

| | | |
|-------------------|---------------------------------|--------------|
| Bruce E. Johnston | Chief | 240-777-7236 |
| Holger Serrano | Engineering Services Specialist | 240-777-7235 |
| Yasamin Esmaili | Project Manager | 240-777-7226 |
| Gail Tait Nouri | County Bicycle Coordinator | 240-777-7243 |
| David Adams | Traffic Engineer | 240-777-7215 |

Montgomery County DPWT, Division of Traffic and Parking Services (DTPS)

| | | |
|-------------|------------------|--------------|
| Pat Bradley | Traffic Engineer | 240-777-2160 |
|-------------|------------------|--------------|

Maryland-National Capital Park and Planning Commission (M-NCPPC)

| | | |
|---------------|-------------------------|--------------|
| Ki Kim | Community-Based Planner | |
| Callum Murray | Community-Based Planner | 301-495-4733 |
| Chuck Kines | Bikeway Coordinator | 301-495-2184 |
| Larry Cole | Transportation Manager | 301-495-4528 |
| John Carter | Community-Based Planner | 301-495-2799 |

U.S. Army Corps of Engineers (ACOE)

| | | |
|-----------------|----------------|--------------|
| David MacGregor | Chief Engineer | 202-764-2799 |
|-----------------|----------------|--------------|

National Park Service Chesapeake and Ohio Canal National Historical Park (NPS)

| | | |
|--------------|---------------------|--------------|
| Kevin Brandt | Park Superintendent | 301-714-2202 |
|--------------|---------------------|--------------|

URS Corporation

| | | |
|------------------|-----------------|--------------|
| Janie Tiedeman | Project Manager | 410-785-7220 |
| Valorie Hennigan | Project Planner | 410-785-7220 |

YKE:dbb

Enclosure

MEMORANDUM

December 2, 2003

TO: Transportation and Environment (T&E) Committee
FROM: Glenn Orlin, ^{Go}Deputy Council Staff Director
SUBJECT: Facility planning review: MacArthur Boulevard Hiker/Biker Trail

The Council appropriated funds under the Facility Planning—Transportation project for the Department of Public Works and Transportation (DPWT) to evaluate means for improving the 7.3-mile MacArthur Boulevard Hiker-Biker Trail between the District of Columbia (at the Dalecarlia Reservoir in Bethesda) and the Old Angler's Inn in Potomac. MacArthur Boulevard is an arterial roadway with two 11'-wide travel lanes. There is currently a bikeway along this length, but it is generally substandard in width and in many places is indistinguishable from the shoulder of inbound MacArthur Boulevard. The current bikeway is heavily used, in that it is a popular commuter biking route and provides ready access to the C&O Canal towpath and other sites along the Potomac River.

DPWT has completed Phase I of facility planning for this project: the feasibility study stage. This worksession is the opportunity for Committee members and other interested Councilmembers to provide informal feedback to DPWT as to what it should study during Phase II of facility planning: the detailed planning stage that will produce the precise project scope and develop reliable estimates of cost and community and environmental impact. DPWT will proceed to Phase II immediately after this review. If Phase II stays on schedule, this project will likely be proposed as an amendment to the FY 05-10 CIP in January, 2005.

Alternatives. In the project planning prospectus, DPWT identified three potential options (see the Executive Summary on ©1-5):

- Alternative 1: the no-build option.
- Alternative 2: providing a continuous 8'-wide hiker-biker path and, generally, at least a 5' offset from the edge of the roadway, and a barrier between the path and roadway where 5' is not available.

- Alternative 3: the same as Alternative 2, plus a widening of MacArthur Boulevard to provide 5'-wide striped bike lanes in each direction.

No detailed cost estimates are available at this stage, but Alternative 2 is believed to cost generally in the \$2-3 million range, while Alternative 3 would be considerably more, perhaps as much as \$10 million more, because the additional 10 feet would require more substantial land takes and retaining walls.

The study has identified nine particular spot improvements along the trail, but the main point of disagreement has been between the two build alternatives. Bike groups have advocated Alternative 3, noting that most commuter bicyclists and adult recreational bicyclists want to—and will continue to—ride on the roadway. They will do so in order to keep to a steady speed, which is not likely while dodging pedestrians and slower bikers on the path. The Washington Area Bicyclist Association (©6-7) and Montgomery Bicycle advocates (©8-9) are two of the groups that expressed this perspective. On the other hand, neighborhood associations have generally opposed Alternative 3, having concerns about the property impacts and the possibility that vehicular speed will increase if the pavement is widened to 32' (two 11' travel lanes plus two 5' bike lanes). The Mohican Hills Citizens' Association (©10-11) and the Brookmont Civic League (©12-13) are examples of the groups stating this position.

Although DPWT is responsible for improvements to and maintenance of MacArthur Boulevard, the road was initially built and still belongs to the U.S. Army Corps of Engineers. Beneath the road are two conduits. (MacArthur Boulevard was formerly called Conduit Road.) The initial conduit built in the 1800s is beneath the centerline, and a second one built in the 1920s is beneath the current bike trail. The Corps has reviewed the general plans for Alternative 3 and has no major problems with it (©14-15). Presumably the Corps would have no major problems with a lesser option such as Alternative 2, since it would have fewer impacts.

A new alternative. The Planning Board reviewed the results of the Phase I study at its November 20 worksession. The Planning staff's report (©16-24) summarizes the issues and concerns about the design of the hiker-biker trail.

At the November 20 meeting DPWT unveiled a new alternative as a compromise between Alternatives 2 and 3. This new alternative is similar to Alternative 3, except that MacArthur Boulevard would be widened only by 4' (to 26') rather than by 10' (to 32'); its travel lanes would be reduced from 11' to 10' in width, leaving a 3'-wide striped shoulder on each side (see ©25). The 3'-wide shoulders would not be wide enough to be formal bike lanes, so they would not be marked as such. Nevertheless, the understanding is that on-road bikers would confine themselves to the shoulders as much as possible. By reducing the travel-lane width to 10' vehicle speeds would likely be reduced somewhat, enhancing the safety of bikers riding on the shoulders.

The Planning Board endorsed studying this new alternative in Phase II. WABA has also endorsed it (©26-27). The cost of this new alternative will lie between Alternatives 2 and 3, although probably much closer to Alternative 2.

Council staff recommendation: Concur with DPWT and the Planning Board in carrying this new alternative into Phase II. In addition, DPWT should perform these other tasks as part of Phase II:

- **Prepare preliminary designs for the other spot improvements noted in the prospectus (©3).**
- **Evaluating the Planning staff's concerns regarding bus stops and pedestrian crossings, lighting, signing, and environmental impacts as described on ©19-21.**
- **Examine further means beyond striping to emphasize the demarcation between the travel lanes and the shoulders.**
- **Divide the project into two or three logical segments, giving the Council the opportunity to consider breaking what is likely to be a costly bikeway improvement into separate funding stages.**

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DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Neal and Lisa Martin, Co-Presidents
Mazza Wood Homeowners Assn
7201 Loch Edin Court
Potomac, Maryland 20854

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Mr. Martin and Ms. Martin:


The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

Our recommendation is a compromise between alternatives two and three. These two alternatives have been presented to the public via public meetings held by the County. The new alternative will reduce the width of both travel-lanes from 11 feet to ten feet, and add an additional 2 feet to both shoulders, which will result in a three-foot shoulder on each side. Please see the enclosed DPWT Phase II Recommendation, for further details.

As this is a modification to what was previously presented to you, we are seeking your feedback. Please note that the County Council's T&E Committee will meet on January 15, 2004. In order for us to present your opinion to the committee, please submit your written response no later than January 2, 2004.

Please contact Yasamin K. Esmaili, Project Manager, at 240-777-7226 with questions or concerns.

Sincerely,



Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Eric Swanson, Vice President
Washington Area Bicyclist Association
(WABA)
733 15th Street, N.W. – Suite 1030
Washington, DC 20005

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Mr. Swanson:

The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

Our recommendation is a compromise between alternatives two and three. These two alternatives have been presented to the public via public meetings held by the County. The new alternative will reduce the width of both travel-lanes from 11 feet to ten feet, and add an additional 2 feet to both shoulders, which will result in a three-foot shoulder on each side. Please see the enclosed DPWT Phase II Recommendation, for further details.

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Please contact Yasamin K. Esmaili, Project Manager, at 240-777-7226 with questions or concerns.

Sincerely,

Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Arrigo Mongini, President
Mohican Hills Citizens' Association
5541 Mohican Road
Bethesda, Maryland 20816

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Mr. Mongini:

The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

Our recommendation is a compromise between alternatives two and three. These two alternatives have been presented to the public via public meetings held by the County. The new alternative will reduce the width of both travel-lanes from 11 feet to ten feet, and add an additional 2 feet to both shoulders, which will result in a three-foot shoulder on each side. Please see the enclosed DPWT Phase II Recommendation, for further details.

As this is a modification to what was previously presented to you, we are seeking your feedback. Please note that the County Council's T&E Committee will meet on January 15, 2004. In order for us to present your opinion to the committee, please submit your written response no later than January 2, 2004.

Please contact Yasamin K. Esmaili, Project Manager, at 240-777-7226 with questions or concerns.

Sincerely,

Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Burton Gray, President
Cabin John Citizens Assn
P.O. Box 31
Cabin John, Maryland 20818

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Mr. Gray:

The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

Our recommendation is a compromise between alternatives two and three. These two alternatives have been presented to the public via public meetings held by the County. The new alternative will reduce the width of both travel-lanes from 11 feet to ten feet, and add an additional 2 feet to both shoulders, which will result in a three-foot shoulder on each side. Please see the enclosed DPWT Phase II Recommendation, for further details.

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Sincerely,

Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Ira Wagner, President
The Civic League of Brookmont
6404 Broad Street
Bethesda, Maryland 20816

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Mr. Wagner:

The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

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Please contact Yasamin K. Esmaili, Project Manager, at 240-777-7226 with questions or concerns.

Sincerely,



Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Norma D. Spiegel, President
Glen Echo Heights Citizens Assn
5305 Wapakoneta Road
Bethesda, Maryland 20816

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Ms. Spiegel:

The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

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Please contact Yasamin K. Esmaili, Project Manager, at 240-777-7226 with questions or concerns.

Sincerely,

Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Barry Cohen, President
Palidades Citizens Assn
6708 Vendome Terrace
Bethesda, Maryland 20816

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Mr. Cohen:

The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

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Please contact Yasamin K. Esmaili, Project Manager, at 240-777-7226 with questions or concerns.

Sincerely,


Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

David Robinson
Bon Air Heights Civic Assn
6207 Windward Place
Bethesda, Maryland 20816

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Mr. Robinson:

The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

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Please contact Yasamin K. Esmaili, Project Manager, at 240-777-7226 with questions or concerns.

Sincerely,

Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Jack Cochrane, Chair
Montgomery Bicycle Advocates (Mobike)
7121 Thomas Branch Drive
Bethesda, Maryland 20817

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Mr. Cochrane:


The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

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Please contact Yasamin K. Esmaili, Project Manager, at 240-777-7226 with questions or concerns.

Sincerely,


Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Madeleine Greenwald, President
Brookmont Civic League
6600 Broad Street
Bethesda, Maryland 20816

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Ms. Greenwald:

The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

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Please contact Yasamin K. Esmaili, Project Manager, at 240-777-7226 with questions or concerns.

Sincerely,


Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Bill Clarke, Chair
Potomac Pedalers Touring Club
10366 Democracy Lane, Suite B
Fairfax, Virginia 22030

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Mr. Clarke:

The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

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Please contact Yasamin K. Esmaili, Project Manager, at 240-777-7226 with questions or concerns.

Sincerely,

Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Lenore Clarke, President
Tulip Hill Citizens Association
5616 Bent Branch Road
Bethesda, Maryland 20816

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Ms. Clarke:

The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

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Please contact Yasamin K. Esmaili, Project Manager, at 240-777-7226 with questions or concerns.

Sincerely,

Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Nancy Wicker, President
River Falls Community Center Assn.
7900 River Falls Drive
Potomac, Maryland 20854

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Ms. Wicker:

The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

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Please contact Yasamin K. Esmaili, Project Manager, at 240-777-7226 with questions or concerns.

Sincerely,

Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Albert J. Genetti, Jr., P.E.
Director

December 10, 2003

Wayne Ringlien, President
Carderock Springs Citizens Assn
8212 Lilly Stone Drive
Bethesda, Maryland 20817

Re: MacArthur Blvd. Bikeway Improvement
Facility Planning Phase I
C.I.P. No. 509337

Dear Mr. Ringlien:

The Montgomery County Department of Public Works and Transportation (DPWT) has completed Phase I Facility Planning (feasibility study) for the MacArthur Blvd. Bikeway Improvement project.

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Sincerely,


Holger O. Serrano, P.E.
Division of Capital Development

HOS:dbb

Enclosures

cc: Yasamin K. Esmaili



Division of Capital Development




Douglas M. Duncan
County Executive

DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION
MEMORANDUM

Albert J. Genetti, Jr., P.E.
Director

January 27, 2004

To: Yasamin Esmaili

From: Carolyn Biggins 

Subject: MacArthur Boulevard Bike Path / Lane Improvements

Regarding the Phase I Facility Planning Study Project Prospectus (October 2, 2003) these are the comments from Division of Transit Services:

1- Page 3 (Executive Summary), add at the end of first bullet:

"However, sufficient radius has to be provided for bus turn movement at that location."

2- Page 29:

"However, the reduced radius must be able to accommodate bus turn movement."

3- Page 37: Route 32: On September 2003, Ride On extended service to Woodrock subdivision, located off MacArthur Boulevard east of Clara Barton Parkway. So you may want to change the wording to:

"Route 32: Bethesda Station to Woodrock, via Cabin John and Naval Ship Research and Development Center, weekday only during peak hours. Stops along MacArthur Boulevard between Wilson lane and Belfast Rd (near study limit)."

Please feel free to contact our planner Yael Klejman at 240-777 5828 if you have any question.



Division of Transit Services



**AGENCY
COMMENTS ON RECOMMENDATIONS**

COMMITTEE OF THE BOARD OF DIRECTORS



DEPARTMENT OF THE ARMY
WASHINGTON AQUEDUCT
U.S. ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT
5900 MACARTHUR BOULEVARD, N. W.
WASHINGTON, D.C. 20016-2514

June 23, 2003

Planning and Engineering Branch

Ms. Yasamin K. Esmaili
Project Manager – Design Section
Department of Public Works and Transportation
Executive Office Building
101 Monroe Street, 9th Floor
Rockville, MD 20850

RECEIVED
C: YKE
JUN 25 2003
JSM/SS
O: FILE VIA
WCOFWAT ENGINEERING SERVICES DESIGN SECTION

Dear Ms. Esmaili:

We have reviewed the draft project prospectus for the MacArthur Boulevard Bike Path. The recommended alternative (3) is acceptable to the Washington Aqueduct. The recommended alternative appears to have no major effect on the operation and maintenance of our underground conduit systems.

During the Phase II of the facility planning for the development of the 35 percent design plans, please ensure the following issues concerning our underground structures are addressed:


- a. Surface drainage impacts on the earth cover over the raw water conduits.
- b. Structural impacts on the raw water conduit due to roadway re-alignments or intersection improvements.
- c. Structural stability of the raw water conduits due to excavation for retaining walls or any other improvements adjacent to the conduits.
- d. Installation of signs or traffic barriers on top of the underground conduits.
- e. Vibration impacts on the conduits due to construction activities.
- f. Ensure minimal environmental impacts are created due to the removal of vegetation within the MacArthur Boulevard right-of-way.

We understand that citizens have requested additional parking along MacArthur Boulevard at the Cabin John Bridge and at Walhonding Road. By expressing our concurrence with the proposed bike path improvements, we are not committing at this time to any changes to existing parking using land under our control.

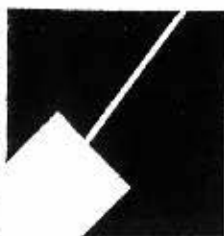
(14)

Thank you for the opportunity to participate in the planning of this improvement project. If you have any questions related to our facilities, please contact David MacGregor at 202-764-2799.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. P. Jacobus', with a long horizontal flourish extending to the right.

Thomas P. Jacobus
Chief, Washington Aqueduct



November 14, 2003

MEMORANDUM**TO:** Montgomery County Planning Board**VIA:** Jeffrey Zyontz, Chief
County-wide Planning DivisionRichard C. Hawthorne, Chief
Transportation PlanningCallum Murray, Team Leader
Community-Based Planning**FROM:** Charles S. Kines, 301-495-2184, for the Park and Planning Department**PROJECT:** MacArthur Boulevard Bike Path/Lane Improvements
From District of Columbia line to Old Anglers Inn**REVIEW TYPE:** Project Prospectus**APPLICANT:** Montgomery County Department of
Public Works and Transportation**APPLYING FOR:** Agency Comments**COMMUNITY-BASED PLANNING TEAM AREA:** Bethesda-Chevy Chase, Potomac**RECOMMENDATION: TRANSMIT COMMENTS TO DPWT**

Staff recommends that the Planning Board transmit the following comments on the proposed project (see Attachment 1: Vicinity Map and Selected Spot Improvements) to DPWT:

1. The study report needs to better explain why Alternative 2 is preferred over Alternative 3 and how the particular details of Alternative 2 were decided, including clearly identifying the trade-offs between bicycle accommodation, environmental impacts and cost. Items needing clarification include:

- a) Why actions to accomplish the stated project goal of improving on-road bicycling are not included in the selected Alternative 2.
 - b) Why the proposed path width is less than the American Association of Transportation Officials' (AASHTO) standard.
 - c) Why the path would not be constructed to allow the future construction of on-road bike lanes. The report should document all alternatives that have been studied in this regard and the important trade-offs being made by DPWT Staff.
 - d) The report should identify existing motor vehicle traffic conditions, including volumes and speeds, and explain how these conditions affect on-road bicyclists.
2. For all locations where spot improvements are recommended, the existing conditions should be described and located on a map, and the need for improvements should be explained. These comments pertain to particular locations (See Attachment 1: Vicinity Map and Selected Spot Improvements):
- a) At Spot Improvement #2, consider installing signs to warn motorists on MacArthur Boulevard of bicycle crossings at Clara Barton Parkway.
 - b) At Spot Improvement #3, provide a bike-safe barrier where a substandard landscape panel would exist under I-495.
 - c) At Spot Improvement #4, identify as part of Alternative 2 some measures that would discourage patrons of Captain's Market from illegally parking on the shared use path.
 - d) At Spot Improvement #7, ensure that crosswalks at the parking lot entrance and exit are well designed and marked. Also, ensure a landscape buffer is provided between the parking lot and the shared use path.
 - e) At Spot Improvement #9, coordination with park path planners and DPWT traffic engineers will be required.
3. Provide the AASHTO-recommended vertical clearance of eight feet for the shared use path throughout the project length.
4. Coordinate with WMATA and Ride-On to determine the safest crossing locations for their patrons. Relocate existing bus stops within the project limits to these locations and eliminate bus stops where safe crossings cannot be provided. The maps in the prospectus should reflect these changes.

5. Refer to the recently published Public Hearing Draft of the Countywide Bikeways Functional Master Plan (October 2003) and identify all existing, proposed and planned countywide bikeways that could connect to the MacArthur Boulevard path and consider providing safe and convenient connections to these bikeways.
6. Evaluate the safety of all legal crosswalks, marked and unmarked, within the project limits and provide improvements where necessary. Ensure that all crosswalks cross streets at 90-degree angles, where feasible, particularly the on-ramp for Clara Barton Parkway.
7. When considering bikeway and roadway widths, trade-offs between safety and potential environmental impacts need to be explained, including:
 - a) Stream crossings: Whether building to the typical section is desirable where the path crosses a stream.
 - b) Steep slopes: Whether using fill to create additional surface area is necessary at locations where the pathway is adjacent to steep slopes
 - c) Tree cover: Additional preservation measures that could be taken to avoid the loss of tree cover along the road.
8. Evaluate the impact of the proposed improvements on County-listed historic sites and districts.

PREVIOUS BOARD ACTION: None.

PROJECT DESCRIPTION

This facility planning study is intended to result in a project that would improve bicycling safety along MacArthur Boulevard between the District of Columbia line and Old Angler's Inn, a distance of 7.3 miles. Improvements to both on-road and off-road bicycling are goals of the study.

Alternative 1 is the no-build alternative, essentially leaving existing conditions unchanged. Only immediate safety concerns would be addressed.

Alternative 2, the selected alternative, recommends upgrading the existing mostly substandard shared-use path and making select spot improvements throughout the corridor. The path would be widened to eight feet. A five-foot minimum offset to the roadway would typically be provided. Where this offset cannot be provided, a bike-safe barrier would be installed between the path and the road.

Alternative 3 would upgrade the shared use path for less experienced bicyclists and also provide bicycle lanes for more experienced bicyclists. The path would be widened to eight feet. A five-foot minimum offset to the roadway would typically be provided. Where this offset cannot be provided, a bike-safe barrier would be installed between the path and the road. In addition, five-foot wide bike lanes would be provided along MacArthur Boulevard to accommodate on-road bicyclists.

Both build-alternatives would improve connections to existing, planned and proposed bikeways and paths in the Potomac and Bethesda-Chevy Chase planning areas.

STAFF ANALYSIS

The project would greatly improve bicyclist and pedestrian accessibility and safety between the neighborhoods of Potomac, Cabin John, Glen Echo and Bethesda. It also would improve an important link to the District of Columbia bikeway system and on to downtown Washington. The improved bikeway would provide better connections to major park trails in Montgomery County including the C&O Canal Towpath, the Capital Crescent Trail and the Little Falls Trail.

Alternative 2 would provide the shared-use path recommended in area master plans and the 1978 Master Plan of Bikeways. The upgrading of the existing shared use path would benefit all bicyclists, especially beginner and intermediate levels.

MacArthur Boulevard functions not only as the major recreational bicycling route in this portion of the County, but also as the major commuter bicycling route. The consultant's bicycle and pedestrian counts indicate much higher levels of on-road bicycle use than off-road (see Attachment #2, "2003 Bicycle and Pedestrian Counts at Four Locations Along MacArthur Boulevard" from page 18 of the prospectus). The report also states citizens attending the second public meeting in April 2003 clearly were in favor of Alternative 3 (which includes bike lane improvements as called for in the Public Hearing Draft of the Countywide Bikeways Functional Master Plan (CBFMP) (October 2003). Although improving on-road bicycling conditions is stated as a major goal of the study, bike lanes would not be provided as part of the selected alternative. ***While staff recognizes that there are trade-offs in DPWT's decision to proceed only with improvements to the shared use path, DPWT needs to explain more clearly what those trade-offs are.***

Pedestrian Accommodation

Since MacArthur Boulevard does not have sidewalks, the shared use path serves as a de facto sidewalk. The path serves as the primary pedestrian facility along this road. Therefore, measures to improve pedestrian safety and reduce potential conflicts between bicyclists and pedestrians must be addressed. A wider path would improve pedestrian accessibility and safety by reducing the likelihood of conflicts between bicyclists and walkers.

Bus Stops and Pedestrian Crossings

Staff believes that it is important that the needs of the County's transit patrons are well integrated into this project. Safe, convenient access to the bus stops needs to be made part of the current plans. In addition to the need for marked crosswalks and good lighting at intersections, ensure that users of both transit and the path have safe access across the road.

The report states that the location and type of bus stops were examined but no recommendations to improve access to them are included. All bus stops should be identified on a map in order to determine locations for improved and safer crossings. Crossings at non-intersection locations that do not have marked crosswalks should be discouraged. In areas where mid-block crossings are necessary or desired, measures to enhance their safety should be identified.

Particular attention should be paid to the bus stops along MacArthur Boulevard to ensure that they are in the safest places for transit patrons to cross MacArthur Boulevard. ***Bus stops that are in locations where it would be unsafe to cross MacArthur Boulevard from the shared use path should be eliminated.*** The bus stops that are retained should be evaluated to determine whether shelters and/or benches are warranted and whether the nearest crosswalks should be striped.

Lighting

Providing adequate lighting for the path should be included in the study. Better lighting will help ensure that people can safely cross the side streets traversed by the shared use path and to safely cross MacArthur Boulevard to get to the path. Good lighting is also needed at bus stop locations. The existing lighting along MacArthur Boulevard is poor. While the proposed lighting along the shared use path may be sufficient to ensure users' safety on the path itself, the intersections that they have to cross to continue on or to access the path are poorly lit at present and the lighting needs to be upgraded. These existing conditions must be addressed to ensure that the proposed facility operates safely as a whole.

Signing

A signing plan should be created showing all proposed signage and all existing signage to remain. The sign plan should address ways to minimize conflicts between bicyclists and pedestrians using the path, and potential conflicts between bicyclists and motorists, especially at or near intersections.

Environmental

Environmental Planning staff offers the following comments:

1. Montgomery County resources for floodplains and historic places should be used as sources in addition to natural resources.
2. Streams in the Potomac Gorge are generally steep-sided and deeply incised. For this reason, efforts to widen or make additional stream crossings will create significant impact and cost, even if only for pathway crossings. Therefore, the many stream crossings should be individually evaluated to determine the improvements that are necessary for safety rather than meeting design standards.

3. In many locations, the existing pathway is along the edge of a steep drop-off on the south side of the road alignment. In these locations, efforts should be made to avoid using fill to create additional surface area. Generally, it would be preferable to place the path on a lower grade that is more widely separated from the road.
4. Where possible the option that allows the grassed separation to function as an infiltration trench to provide some water quality mitigation should be utilized.
5. Forest and tree impact should be evaluated, based not only on acres of impact but also on the size and quality of individual specimens and on the nature of the crown area. Additional preservation measures that reduce thermal impacts to water quality should be taken where forest or individual trees provide a significant overhang on the road.

Parks Impacts

Although briefly highlighted in Spot Improvement #9, improved access to the Capital Crescent Trail (CCT) from the upgraded path would be desirable and thus should be included as part of this project. The CCT is one of the premier off-road bicycle commuting routes in the County.

Historic Resources

The study report notes several National Register historic resources that are within the study area, including Clara Barton Parkway, C&O Canal Park, Cabin John Bridge (which is a National Historic Landmark), Glen Echo Park Historic District, Old Anglers Inn, Bonfield's Service Garage, Clara Barton School, and the Washington Aqueduct. The study report needs to reference all County-listed historic sites and districts as well. It appears, however, that none of these resources would be affected by the proposed improvements.

PUBLIC OUTREACH

An open house-style public meeting was held on January 22, 2003 to announce the project and solicit feedback from citizens on the scope of the project. A second public meeting was held on April 23, 2003 to discuss and solicit feedback on various alternatives. DPWT staff and consultants have also coordinated the proposed project with the affected property owners and met numerous times with various homeowner and community associations.

RELATED PROJECTS

Falls Road Bike Path (#509521). This project would fill in the missing gaps for a continuous bike path from MacArthur Boulevard to the City of Rockville. The project involves the acquisition of land, a retaining wall, a pedestrian bridge over a small stream and an eight-foot wide hiker-biker path.

Glen Echo Storm Drain (#509637). This project provides for design and construction of a new storm drain system located along Bryn Mawr Avenue and the replacement of the existing system on University Avenue to the outfall at Clara Barton Parkway. The existing failing system is located within private backyards, without public easements. The improvements will collect runoff from MacArthur Boulevard and redirect it around the portion of the existing system where easements are not possible.

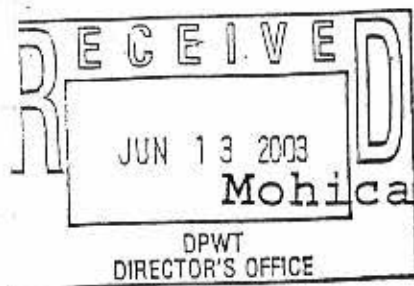
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Attachments

mmo to mcpb for public hearing.doc



**CITIZEN COMMENTS
ON RECOMMENDATIONS**

CHIEF OF POLICE
CITY OF NEW YORK



Mohican Hills Citizens' Association

representing 250 families

STATEMENT OF THE MOHICAN HILLS CITIZENS' ASSOCIATION ON THE MAC ARTHUR BLVD. BIKEWAY PROJECT IN SUPPORT OF ALTERNATIVE 2

At the June 3 meeting with the DPWT project manager and the bike facilities coordinator we learned that the staff is close to recommending that Alternative 3 should be carried into the 35% engineering design phase. Alternative 3 would add two new 4 to 5 ft. wide bike lanes, one on each side of the MacArthur Blvd. roadway, rebuild the current 8 ft. "shared use path" on the river side of the Blvd. and restore the grass strip separating it from the roadway. **Those attending the meeting, primarily residents of Mohican Hills, the Town of Glen Echo, and surrounding communities, overwhelmingly favored Alternative 2.** Only one or two speed cyclists, of the 25 or so people attending that meeting, favored Alternative 3. In an informal poll of Mohican Hills residents, several of them cyclists, about two weeks prior to the meeting, none of those responding favored Alternative 3. I believe these sentiments are also shared by the vast majority of residents in adjacent communities. Therefore, we find it hard to imagine the basis for the DPWT staff's inclination to support Alternative 3. It surely cannot be public opinion. It surely cannot be on the merits of Alternative 3, regardless of public opinion, for the reasons outlined below.

1. The widening of the paved vehicle way on MacArthur Blvd, including the new 4 to 5 ft. bike lanes, would probably result in increased motor vehicle speed violations, more illegal passing movements, and an increased tendency for cars to pass left turning vehicles on the right and encroach on the bike lanes.
2. The widening would result in encroachment on existing green space on both sides of the Blvd. and, in some cases, the loss of trees and proper drainage. Encroachment on the uphill side of the right-of-way could also result in interference with the steeply sloping driveways.
3. The widening and striping of MacArthur Blvd. would alter the very nature of this road, part of which has been officially declared a "scenic byway", and would result in the creation of something resembling a major arterial. We like the way it looks now.
4. If the primary purpose of the new bike lanes is to get the speed cyclists out of the way of the motor vehicle traffic, we question the effectiveness of these lanes. Our own experience in driving the Blvd. is that there is ample opportunity to pass cyclists safely unless they are traveling in large platoons, as sometimes happens on week-ends. Even then, the wider width will encourage more side-by-side cycling and encroachment on the motor vehicle lanes. Furthermore, we question whether those speed cyclists will be content to use the bike lanes when they accumulate the inevitable debris near the side of the pavement.
5. Finally, Alternative 3 will cost considerably more than Alternative 2, perhaps three times as much, because of the need for more pavement and retaining walls. These funds could be put to better use on other projects, even bike-related projects, or even on maintaining the existing or upgraded shared use path (see last paragraph below). Indeed the higher cost of Alternative 3 will decrease the likelihood that it could be included in a future

budget in the near term. Spending 35% design money on Alternative 3 could, ironically, result in no improvements at all. Putting down more pavement would also increase the cost of maintenance. Why do this when the County is having trouble finding funds to maintain even existing facilities?

Alternative 2 would provide for improvement in the shared use path and the restoration of the green space separating that path from the vehicle lanes. **We favor Alternative 2** but we also ask the engineers to bear in mind the following principles as they work on designing Alternative 2.

1. Sensitivity to the concerns of owners of houses and establishments located on the Blvd.
2. Avoidance of blind application of AASHTO standards. In some cases, for example, it may not be possible to maintain width without causing serious impacts to greenery.
3. Adequate signage, even flashing lights, at certain points such as the exits from the Clara Barton Parkway, warning drivers to watch out for cyclists coming from BOTH directions should be considered..
4. Particular attention to improvements at the sites of the water supply valves located in the middle of the Blvd. These areas are not safe, particularly for children on bikes using the shared use path.

Finally, we note that when some of those attending the June 3 meeting complained about the debris on the existing bike path, the staff said "There is no money for maintenance and sweeping of existing bike paths." We recognize that it is not uncommon for public works agencies to be rich in capital funds and poor in maintenance funds, particularly when State and Federal aid tends to be largely for capital investment. This may not be a problem that the bike staff should be asked to handle, but surely the leadership of DPWT, County Council, and the County Executive, should be giving thought to a more creative way to allocate resources to make better use of expensive infrastructure investments. For example, it would seem you could make a multi year program of sweeping and other maintenance-like activities eligible for capital funding by making it part of an "infrastructure enhancement program".

Submitted on June 10, 2003

Arrigo Mongini

President, Mohican Hills Citizens' Association

6600 Broad Street
Bethesda, MD 20816

June 24, 2003

Yasamin Esmaili, Project Manager
Gail Tait-Nouri, Bikeway Coordinator
Department of Public Works and Transportation
Division of Engineering Services
101 Monroe Street, 9th Floor
Rockville, MD 20850-2540

Dear Ms. Esmaili and Ms. Tait-Nouri:

Thank you for the opportunity for the Brookmont Civic League to provide comments on the Facility Planning Study of MacArthur Boulevard Bikeway Improvements. Brookmont is a community of approximately 200 families, many of whom are avid bicyclists. Many residents of Brookmont use the MacArthur Boulevard bike path regularly to commute to work on their bicycles and some ride on MacArthur Boulevard for commuting purposes and exercise. In addition, many residents of Brookmont use the path for recreational and exercise use, many on bicycle and many on foot, roller blade, and scooter. We, therefore, appreciate your efforts to address the safety issues associated with the bike path.

The Civic League voted on June 17th to support Alternative 2. While we generally support this proposal, the Civic League believes that this alternative should be modified somewhat to assure the safety of people using the bike path. In particular, we are concerned that the rubbery bumpers that would be installed in several extremely dangerous places along the bike path to warn drivers that they were encroaching on the bike path will be inadequate; most of these locations involve places where the 5' separation would not be possible, such as two sharp curves near Brookmont and the traffic circle at Glen Echo. In the view of the Civic League, hard barriers, such as Jersey walls, must be installed in these locations to assure that people on the bike path are protected. Today, cars "cut the corner" on these curves to make it possible to maintain speeds that are commonly well above the posted speed limit. The present situation is a death waiting to happen — and any future "solution" that fails to provide certain protection to people on the bike path would be equally dangerous. The protection of pedestrians and bike riders is of paramount importance in these locations! In addition, the plan for some intersections needs to be reworked.

Although the Civic League recommends Alternative 2, the community recognizes that Alternative 2 does not address the pressing need to improve safety for advanced riders, who will continue to ride on the road, as they are legally allowed. Without improvements, MacArthur Boulevard is too narrow for two cars and a bicycle. Our community is concerned that Alternative 3 will fail to address the safety needs of advanced riders, which Brookmont agrees is an important goal of the project. By widening the road by approximately 4' in each direction, Alternative 3 will likely increase traffic speed, endangering advanced riders, because cars will see the bike lanes as making the driving lane wider and, therefore, easier to go fast around curves. Moreover, a wider road with higher speeds could force some advanced riders to move to the bike path in an effort to gain safety, creating a danger to other, slower users of the bike path. Some experienced riders who live in Brookmont also commented that the 4' aprons would

tend to become debris-laden, forcing advanced riders back onto the traffic lanes unless provision is made for street cleaning. We feel that it is important to also address the safety needs of advanced riders, but do not believe that the current Alternative 3 does that adequately and without creating other problems, especially speeding by motor traffic on MacArthur Boulevard.

We would also like to raise a few issues and concerns for you to consider about the value of adding the bike lanes on MacArthur Boulevard. At this time, it is not clear to our community that the County has adequately established that a significant number of bike riders will use the new bike lanes. Is there a study showing how many riders will use the bike lanes? Are the bike lanes tied into a broader plan for increasing the level of bike commuting or recreation in the County? Are the bike lanes designed only with the goal of protecting the current level of on-road riders? Is there any information showing that bike lanes of this sort actually achieve intended goals? Will Washington, D.C., work with the County to assure the safety of commuters and other street riders once they arrive at the District line? Perhaps with additional information, if any is available, we could help devise additional ideas for the final plan. The County needs to show that there is a significant benefit to adding the bike lanes and that potential problems with the overall wider road can be addressed if this solution is to be implemented.

In summary, we wish to make two points about the Facility Planning Study of MacArthur Boulevard Bikeway Improvements:

1. While we realize that Alternative 2 does not address the needs of all bicyclists in the MacArthur Boulevard corridor, we believe that it is critical to improve the safety of the bike path. We recommend Alternative 2, but note that it must be modified to add solid barriers to separate people on the bike path from motor traffic at critical locations and to rework plans for certain intersections.
2. We feel that it is important to also address the safety needs of advanced riders, but do not believe that the current Alternative 3 does that adequately and without creating other problems, especially speeding by motor traffic on MacArthur Boulevard.

The Brookmont Community would like to be involved further in the planning and implementation process. Please feel free to contact me at 301-263-0301 or madeleine_greenwald@hotmail.com.

Sincerely,

Madeleine Greenwald
President
Brookmont Civic League

The Town of
GLEN ECHO

Chartered 1904

Town Hall • 6106 Harvard Avenue • Glen Echo • Maryland 20812 • (301) 320-4041

townhall@glenecho.org

January 6, 2004

VIA FACSIMILE

Ms. Gail Tait-Nouri
Director's Office
Montgomery County Department of Public Works and Transportation
101 Monroe Street
Rockville, Maryland 20850

Re: MacArthur Bike Path

Dear Ms. Tait-Nouri:

I am writing to convey the Town of Glen Echo's comments to the MacArthur Boulevard bike path proposal that will be presented for approval on January 15, 2004. Please convey our comments to the appropriate persons.

In general, the Town continues to support Alternative 2 (Separated Shared Use Path (south side)), as outlined in the notice of public meeting originally sent to the Town. While the full Town Council has not had the opportunity to review in detail the final proposal, I wanted to request that the modifications outlined below be considered.

First, as you may be aware, Glen Echo Park, which is under new management as a public-private partnership operated by the Glen Echo Park Partnership for Arts and Culture under a cooperative agreement with Montgomery County, lies immediately to the south of the bike path. The Park has been substantially renovated, and there are plans to increase visitation, including festival days, on the site. Parking problems already are a concern to Town residents, and we are seeking ways to limit overflow parking in the Town, along MacArthur Boulevard (where parking is illegal) and on the bike path, which, in the past, has served as a parking lot during busy events. At times, illegal parking along MacArthur Boulevard and the bike path has effectively blocked safe exit from Town streets onto

Ms. Gail Tait-Nouri
January 6, 2004

Page 2

MacArthur, since it is impossible for exiting cars to get a clear view of the roadway when cars are parked right up to the edge of intersecting streets.

To prevent driving and parking on the portion of the bike path that runs in front of the Town of Glen Echo, we request that you install flexible, reflective barriers (similar to those installed in Cabin John at Persimmon Tree, Seven Locks, and the entrance to the Clara Barton Parkway) at the intersections of MacArthur Boulevard and the following Town streets: Cornell Avenue; Bryn Mawr Avenue; Harvard Avenue; Princeton Avenue; and Oxford Avenue. The installation of these barriers will, by making it impossible to drive or park on the bike path at these intersections, help to insure a safe exit for Town residents, as well as enhanced safety for bikers and pedestrians on the path.

Thank you for your consideration of this request. We look forward to a favorable response.

Sincerely,

THE TOWN OF GLEN ECHO



Deborah M. Beers, Mayor
(301) 229-7308 (home)
(202) 452-7919 (office)
(301)-320-4041 (town hall)

cc. The Hon. Howard Dennis
Montgomery County Council

CABIN JOHN CITIZENS ASSOCIATION

P.O. Box 31, Cabin John, MD 20818

Organized 1919

Charter Member Montgomery County Civic Federation

Burr Gray - President

Larry Heflin - Vice President

Bruce Wilmarth - Treasurer

Gary Barnhard - Secretary

By Telecopy

December 3, 2003

Hon. Nancy Floreen

Chair – Committee on Environment and Transportation

Montgomery County Council

100 Maryland Ave., 6th Flr.

Rockville, MD 20850

Subject: MacArthur Blvd Bike Path Improvements

Dear Councilmember Floreen,

On behalf of the Cabin John Citizens Association (CJCA), I am writing in support of the bike path proposal to be considered by your committee tomorrow (12/4/03). It is my understanding that the County is considering the following option: add two feet of pavement to each side of MacArthur Blvd and narrow the driving lanes by one foot on each side, thus creating a three-foot bicycle lane on each side for the fast bicyclists. The proposal also would create a five foot strip of green space between the fast bike lane on the Potomac River side and the mixed-use 8-foot wide bike bath that currently exists. This may entail moving the mixed-use bike path a bit further away from MacArthur Blvd in certain sections.

While I have not had time to review the proposal in detail, CJCA has advocated consistently for greater separation of the 8-foot mixed-use path from MacArthur Blvd. This is critical to the safety of residents using the mixed-use path. We support the County's efforts and proposal.

Please feel free to call me (703-607-2740 (w)) if you have any questions.

Sincerely,



Burton Gray

Cabin John Citizens Association - President

CABIN JOHN CITIZENS ASSOCIATION

P.O. Box 31, Cabin John, MD 20818

Organized 1919

Charter Member Montgomery County Civic Federation

Burr Gray - President

Larry Heflin - Vice President

Bruce Wilmarth - Treasurer

Gary Barnhard - Secretary

December 26, 2001

Mr. Albert J. Genetti, Jr.
Director
Department of Public Works and Transportation
Montgomery County, Maryland
101 Monroe St. 10th Floor
Rockville, MD. 20850-2450

Re: MacArthur Blvd Shared Use/Bike Path in Cabin John Section

Dear Mr. Genetti,

On behalf of the Cabin John Citizens Association (CJCA), we ask for a meeting with you (or your staff if they have the authority to make decisions on the issues described below) in the next three weeks on the issues of the repaving and implementation of safety measures on the Cabin John portion of the MacArthur Blvd shared use/bike path. Cabin John residents really feel that they are at risk from car traffic along MacArthur Blvd. when they use the shared use/bike path. It is our hope that any repaving this spring in that section will be accompanied by the implementation of safety measures and that both projects will proceed simultaneously when spring arrives. I would very much appreciate it if someone from your staff could call me (703-607-2740 (w), 301-320-2918 (h)) as soon as possible regarding scheduling the meeting.

We know that your staff was awaiting completion of the aqueduct re-lining work by the Army Corps of Engineers but I would point out that we have been writing letters to the County for years and years (the earliest is dated 1993) about the safety issues and the needed repaving. (If desired, I will provide you with copies of our earlier and numerous letters, including among others: 1993 letter on the safety issues, April 7, 1998 letter to Betty Ann Kranke, letter of Jan. 29, 1998 to William Hussman (MNCPPC Chairman) regarding County Bikeways Master Plan, Jan. 12, 1998 letter to Ms. Gail Tate-Nouri Dept. of Public Works and Transportation, March 18, 1999 letter to Ms. Tate-Nouri (with a copy to Doug Duncan), July 24, 2000 letter to Leroy Anderson of Dept. of Highway Services.), plus recent letter to you of June 2001 from CJCA Vice President Larry Heflin.) We have also met previously with your staff on these issues (June 13, 2000 in particular). The onset of winter gives us all a moment to think about the safety issues in particular.

At two recent meetings, Cabin John residents determined that the following criteria summarized our concerns and should be applied to any work done on the Cabin John section of the shared use/bike path this spring. Some of these items are easy to implement, while others, such as relocating portions of the bike path slightly further away from MacArthur Blvd, may take more effort.

Criteria/Concerns

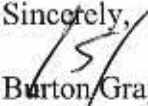
1. Need barrier of some kind between road and shared use/bike path. Barrier should be physical in nature but not larger or more substantial than is necessary to keep cars from voluntarily going onto the Path. Barrier should be esthetically pleasing if possible, but safety is of most importance. Barrier would be approximately mid-way between southern edge of MacArthur Blvd and northern edge of bike path. Need to allow space on shoulder of road for on-road bikers that use MacArthur, but don't want barrier so close to shared use/bike path that users worry about running into it. The barrier should have openings so as to allow for (1) access by people whose driveways empty onto MacArthur, (2) mail trucks to access mail boxes, and (3) emergency pull-off area if there isn't an opening in the path nearby. The feeling is that the Ride-on Buses and the School buses should not pull onto the bike path to load passengers. (It might make sense to move the bike path closer to the Potomac River in those areas so as to allow the buses room to pull off onto the shoulder of MacArthur without encroaching onto the bike/shared use path.)
2. Prevent passing on the right hand side by cars traveling east-bound on MacArthur. Cars traveling east often swing wide on the right hand side to go around cars turning left from MacArthur Blvd. This is a source of major concern since the passing cars usually encroach on the bike path in order to make their pass. The barrier mentioned above will probably prevent this.
3. Make intersections of side streets with MacArthur safe. Worst locations are: (1) Persimmon Tree (cars swing wide onto bike path when turning left onto MacArthur off Persimmon), (2) Seven Locks Rd – same problem, (3) 79th St intersection (south side) – same problem, also have problem noted earlier of cars going onto bike path in order to pass on the right hand side, (4) Community Center intersection – cars making turns to go onto Clara Barton Parkway do not look for bicyclists or pedestrians that are crossing the road on the shared use/bike path.
4. Grassy median strip. It would be very nice to have a grassy or bush-filled median strip between the bike path and the MacArthur Blvd shoulder, such as is the case along much of MacArthur Blvd. We recognize the grass at that location in the past has taken a beating, but if the barrier mentioned above is implemented, this might keep cars off the grass and help maintain it. We also recognize that there is not enough space in some locations for grass. Perhaps the bike path can be moved a bit toward the Potomac River in certain locations to create a bit more space to allow for the grassy median strip.
5. No parking on bike path. Often customers of the various merchants along MacArthur (Captain's Market, and MacArthur Plaza Shopping) and repairmen park on the shared

use/bike path. The barrier mentioned above will stop some of these, but more and clearer signs as to the monetary penalties for illegal parking, plus occasional enforcement would help reinforce the "No Parking" aspect.

6. Allow for access on MacArthur Blvd. of on-road bicyclists. MacArthur should have a space on the shoulder of the south side of MacArthur so that on-road bikers traveling east can pull off onto that space to allow cars to drive by.
7. The two lanes of MacArthur Blvd. should remain exactly the same width as the present. When the repaving is done, no effort should be made to make the lanes any wider at the curves. Making the lanes wider around the turns will only tempt cars to increase their speed.
8. School bus stops should be safe from cars pulling onto the bike path. The County should take whatever means are necessary to ensure the safety of stops where school kids are waiting in the morning. Here are the locations of bus stops in Cabin John located along MacArthur Blvd: Bannockburn Elementary School stops - 82nd St., 81st St., 79th St., Seven Locks Rd., and Wishbone Terrace, Pyle Middle School - 79th St., 78th St., Wishbone Terrace, and 75th St., Walt Whitman High School - Persimmon Tree Rd., 79th St., 78th St., and 75th St.
9. Keep the shared use/bike path eight (8) feet wide.
10. A notice of some kind near Persimmon Tree Rd. intersection for cars going east on MacArthur that they are entering a community and that the speed limit is enforced.
11. Certain locations along MacArthur Blvd. in Cabin John should have crosswalks, including among others (1) intersection near Clara Barton Community Center, (2) 77th St., (3) 79th St. (across from the shopping plaza), (4) Tomlinson Avenue, and (5) Seven Locks Rd. We sent a letter previously to DPWT on this issue.

It is important that you recognize the urgency of our concerns and the need to have a plan in place when the spring arrives and the re-paving is ready to commence.

Sincerely,


Burton Gray
CJCA President

Cc:

Hon. Bill Bronrott

Hon. Steve Silverman

Hon. Howard Dennis

Mr. Leroy Anderson - DPWT - Dept. of Highway Services

Ms. Gail Tate-Nouri - DPWT - Chief of Operations - Bikeways

Mr. Tom Jacobus - Chief, Washington Aqueduct Division, Corps of Engineers

CABIN JOHN CITIZENS ASSOCIATION

P.O. Box 31, Cabin John, MD 20818

Organized 1919

Charter Member Montgomery County Civic Federation

Burr Gray - President

Larry Heflin - Vice President

Bruce Wilmarth - Treasurer

Gary Barnhard - Secretary

January 7, 2004

Mr. Holger Serrano, P.E.
Division of Capital Development
Department of Public Works and Transportation
Montgomery County, Maryland
101 Monroe St. 9th Floor
Rockville, MD. 20850-2450

Re: MacArthur Blvd Bike Path Improvements

Dear Mr. Serrano,

Thank you for the December 10, 2003 notification of the modified proposal regarding improvements to the bike path that runs along MacArthur Blvd. The Cabin John Citizens Association (CJCA) supports the proposal. While this letter is after your requested deadline of January 2, 2004 for comments, we noted our support for the concept in a short letter (attached) of December 3, 2003 to Councilmember Nancy Floreen. I am also including a letter sent on December 26, 2001 to Albert Genetti, Jr. that lists various other concerns of the Cabin John community that are relevant to the bike path improvement in the Cabin John section. We hope that your staff will consider these comments, most of them still relevant, as the process moves forward.

We have consistently advocated for separation of the bike path from MacArthur Blvd. In some locations, I know that homeowners are sensitive about having the bike path moved closer to their house even though the property on which the bike path is to be situated is still federal property. In certain locations in Cabin John, it might make sense to keep the poles that the County put up this past year as a means of separating the bike path from MacArthur Blvd (in front of the MacArthur Plaza shopping center, for example), rather than relocating the bike path in that spot. I hope that we will have the opportunity to comment again on the real specifics of the plan as it moves forward.

Finally, it is true that cars routinely exceed the speed limit on MacArthur Blvd. We hope that the narrowing slightly of the two car lanes will serve to reduce average car speeds and that the vehicle drivers will not perceive the 3-foot bike lanes as making the lanes wider for cars.

RECEIVED

JAN 09 2003

Sincerely,

Burton Gray
CJCA President

Attachments

MCPWT CAPITAL DEVELOPMENT

WASHINGTON AREA BICYCLIST ASSOCIATION (WABA)
733 15TH Street NW, Suite 1030
Washington, D.C. 20005

May 7, 2003

Ms. Yasamin Esmaili
Facility Design and Planning
Dept. of Public Works and Transportation
Rockville, MD 20850

RECEIVED
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O: FILE VIA
HCDPWAT ENGINEERING SERVICES DESIGN SECTION

Dear Ms. Esmaili,

I am forwarding the comments of the Washington Area Bicyclist Association (WABA) on the proposed facility design for the MacArthur Boulevard Bikeway Improvements Project. WABA is a nonprofit organization committed to the development of bicycle facilities, to improving safety for bicyclists and encouraging greater use of bicycles generally. Founded in 1972, WABA now has 7,000 dues-paying members regionally, of whom 1,500 reside in Montgomery County. Our comments draw upon the extensive expertise of our members on bicycling transportation matters.

As any bicyclist using MacArthur Boulevard knows, the roadway is narrow, carries heavy traffic entering and exiting several ramps to the Clara Barton Parkway and I-495. Numerous visitors to the Potomac River, Great Falls, Mather Gorge, and the Billy Goat Trail use the road. Parking on weekends overflows onto the road shoulder. No bike lanes, as such, exist; the paved path is crumbling, unsafe, and has become an informal shoulder used by motor vehicles to bypass cars stopped for left turns and traffic. Nevertheless, MacArthur Boulevard remains heavily used by bicyclists of all types. It is the principal route for bicyclists to access the C&O Canal, Great Falls Park, Glen Echo Park, and all of Western Montgomery County. It is also a major commuting route into the District of Columbia and the extensive bicycle trail network extending southward into DC and Virginia.

Current master plans designate MacArthur Boulevard as a "scenic byway" which should be limited to a 2-lane road. But the same plans appear to accept that MacArthur is an "arterial" serving major commuting interests. Furthermore, the speed limit on MacArthur is 30 mph, which means speeds in excess are common. The heavy traffic, especially during rush hour and weekends, is incompatible with maintaining MacArthur as a quiet, semi-rural byway. The master plans (Potomac Subregion and Bethesda-Chevy Chase) focus principally on improvements to the existing "bikeway", meaning the paved shared use path.

To its credit, the Montgomery County DPWT recognizes the needs of on-road bicyclists in its planning document: "The purpose of the MacArthur Boulevard Bikeway project is to upgrade the existing shared use path to current standards to promote usage and enhance safety for all bicyclists, and to improve the safety of bicycling on the MacArthur Boulevard roadway to better serve the experienced bicyclist."


WABA strongly endorses a total rehabilitation of MacArthur Boulevard to serve as originally intended—as a scenic byway, with bike lanes and a separate shared-use path. Its de facto status as an "arterial" highway should be lowered in priority. Unless these steps are taken, MacArthur Boulevard inevitably will decline as a bikeable, community-friendly roadway.

These are the key reasons why WABA supports both bike lanes and a separate shared-use path on MacArthur Boulevard:

1. The current conditions on MacArthur Boulevard consisting of a totally inadequate path often used by motorists as an informal shoulder, shortcut around stopped traffic, and for parking, present real dangers to all users.
2. Many residents and their children use the shared-use path for strolling, dog-walking, playing, jogging, casual biking and other activities incompatible with bicycle speeds greater than 12-15 mph, which are routinely exceeded by on-road bicyclists.
3. Construction of only the improved, separate shared-use path would leave on-road bicyclists to struggle with heavy traffic on a narrow, shoulderless roadway.
4. To accommodate the many users of MacArthur Boulevard without dangerous conflicts between motorists and bicyclists, and between pedestrians and fast-riding cyclists, requires separate bike lanes and a separate shared-use path.

WABA recognizes that our recommendation costs more than less accommodating solutions. Nevertheless, MacArthur Boulevard is a hugely beneficial asset to Montgomery County and has been long neglected. The MacArthur Boulevard Bikeway Improvements Project should be planned with an eye to the best result possible.

Sincerely,



Ellen Jones, Executive Director

Montgomery Bicycle Advocates
Jack Cochrane, Chair
7121 Thomas Branch Dr.
Bethesda, Md. 20817

May 7, 2003

Department of Public Works and Transportation
Division of Engineering Services
101 Monroe Street, Ninth Floor
Rockville, MD 20850-2540
Attention: Yasamin Esmaili

Re: Comments on Proposed MacArthur Boulevard Bikeway Improvements

Dear Ms. Esmaili:

I am writing to you on behalf of Montgomery Bicycle Advocates (MOBIKE). MOBIKE is a grass roots organization committed to supporting the needs of cyclists of all skill levels who ride in Montgomery County. In particular, we are working to promote the creation of a network of bicycle-friendly roads and trails across the county.

The members of MOBIKE support DPWT's comprehensive approach to improving the MacArthur Boulevard Bikeway through the addition of both on-road bike lanes and a revamped shared-use sidepath.

MacArthur Boulevard is important not only to bicyclists who live nearby, but also to many others throughout the county. For some, MacArthur Boulevard's rare natural environment makes it a cycling destination in and of itself. To others, it is a vital transportation route providing access to Bethesda, Washington, D.C., and western Montgomery County.

MOBIKE strongly supports Alternative 3, which includes both improvements to the existing shared-use path and the addition of bike lanes to the motor traffic lanes of MacArthur Boulevard. Considering the mix of users (pedestrians, motorists, and bicyclists) it is necessary to provide accommodation so that all may use the facilities safely and comfortably.

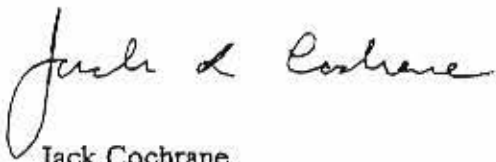
It is clear that there is widespread dissatisfaction among path users for reasons of safety and utility. It is also clear that most road cyclists are not accommodated even by well-designed shared-use paths, because the resulting mix of traffic (dog-walkers, joggers, slower or timid cyclists) and the less smoothly-graded pavement are incompatible with their needs. Nor do cyclists feel safe riding in the roadway as it's now configured, due to the difficulty that motorists often have navigating around cyclists in the narrow, windy lanes.

(8)

MOBIKE believes that Alternative 3 presents the best opportunity to preserve and expand non-motorized use of the MacArthur Boulevard corridor, consistent with local, state, and federal policies to improve safety, physical fitness, and environmental quality. The MacArthur corridor in particular has been maintained to preserve a small-town, natural feel consistent with non-motorized transportation.

We will be following the progress of this project with great interest, and look forward to improved cycling on MacArthur Boulevard.

Sincerely,



Jack Cochrane
Chair, Montgomery Bicycle Advocates
Bethesda, Maryland

9

2



Washington Area Bicyclist Association

GETTING THERE BY BIKE

November 20, 2003

Dr. Glenn Orlin, P.E.
Deputy Council Staff Director
Montgomery County Council
Rockville, MD 20850

Dear Dr. Orlin,

I would like to bring you up to date on our interests concerning the MacArthur Boulevard Bikeway Improvement Project listed for consideration by the Transportation & Environment Committee on December 4.

Early this November, WABA, Potomac Pedalers Touring Club (PPTC) and MOBIKE, the advocacy spin-off from the Montgomery County Bicycle Advisory Group to DPWT, met with the Chief of the Capital Development Division at the Department to express our concern that the Bikeway Project had to make MacArthur Boulevard safe for on-road bicycling. We asked whether the proposal could include improved shoulders on both sides of MacArthur Boulevard. At present, a rough shoulder exists only on the river side; no shoulder exists on the out-bound side. We pointed out that bicyclists need maneuvering room in order to permit cars to pass without crossing the center line. If this can happen, we think a lot of the road rage directed at bicyclists will be ameliorated. We also documented with photographs the rapid deterioration of the new pavement along the unprotected edge of the road.

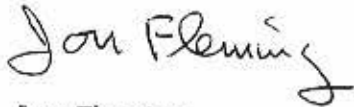
Our presentation to DPWT was well received. At this morning's meeting of the Montgomery County Planning Commission the Department presented a modification to its proposal for phase II to provide for 3-foot shoulders on both sides of the road coupled with a narrowing of the travel lanes for vehicles from 11 feet to 10 feet. This means only two feet of new pavement on each side of the roadway versus 10 feet for dedicated bike lanes called for under Alternative 3. Today, to our great pleasure, the Planning Commission voted to recommend the Department's proposal as modified, that is a shared use path, a greenway, and shoulders on both sides of MacArthur Boulevard.

We hope that you can support our request to the T&E Committee to approve proceeding with the necessary engineering and cost studies as requested by DPWT, including new shoulders on both sides of the roadway.

(26)

MacArthur Boulevard is one of our county's great resources. It serves unique communities, wonderful parks, recreational facilities, historic places, the C&O Canal, and natural features such as Mather Gorge and Great Falls. It also serves as a major transportation route and supports the aqueduct carrying our water. To accommodate all these uses, while maintaining the character of the road, as "semi-rural arterial", takes hard work and wise planning. We are convinced that the Bikeway Improvement Project, with the roadway modifications adopted today, can achieve this goal.

Sincerely,

A handwritten signature in cursive script that reads "Jon Fleming".

Jon Fleming
WABA Volunteer
Montgomery County Advocacy Chair



Washington Area Bicyclist Association

GETTING THERE BY BIKE

RECEIVED

C: YE

JAN 6 2004

O: FILE VIA JSM/HO
CAPITAL DEVELOPMENT
DESIGN SECTION

January 2, 2004

Yasamin Esmaili
Montgomery County Department of
Public Works and Transportation
101 Monroe Street 9th Floor
Rockville, MD 20850

Dear Ms. Esmaili:

Thank you for the opportunity to submit comments on the MacArthur Boulevard Bikeway Improvement Project. The Washington Area Bicyclist Association (WABA) would like to express its support for the "Alternative 2 - Modified" plan proposed by the Department of Public Works and Transportation. This proposal would benefit cyclists of all abilities by adding two feet of paving to each side of the road, which, when combined with one foot taken from each motor traffic lane, will yield a 3-foot wide area for road cyclists. In addition, the proposed 5 foot landscaped barrier would be an improvement over current conditions.

We would, however, prefer that any decisions regarding markings and signage for the cycling space be deferred until the detail design stage of the project. This would be consistent with design processes described in the Draft Master Plan of Bikeways now under consideration.

The MacArthur Boulevard Bikeway project presents unique circumstances in that it is already a key established bikeway, yet the existing conditions are very constrained. We expect that DPWT will apply creativity as well as engineering skills to meet these challenges, and that the best possible solution may differ from standards accepted for new, unconstrained projects.

Thank you for your consideration. Please feel free to call if you have any questions.

Sincerely,

Eric Gilliland
Acting Executive Director
Washington Area Bicyclist Association

CC: Holger Serrano

Esmaili, Yasamin

From: helen zitomer [hazitomer@yahoo.com]
Sent: Friday, January 02, 2004 3:02 PM
To: Esmaili, Yasamin
Subject: MacArthur Boulevard Bikeway Project

Thank you for the opportunity to submit comments on the Modified Alternative 2 for the MacArthur Boulevard Bikeway.

MOBIKE wholeheartedly supports the new alternative, which provides much-needed road cycling space, offers an improved side path, and still conserves the existing natural surroundings of MacArthur Boulevard. MOBIKE thanks DPWT for the great effort it has made to consider suggestions from diverse users and to develop a design which serves many interests.

We consider it very important that proper road markings and signage be incorporated into the final design, to let drivers and cyclists know the purpose of the added space.

Also, we suggest that any decisions regarding the staging of construction take into account the potential availability of matching funds (specifically, MDSHA-administered Transportation Enhancements Funds).

Thank you for your consideration.

Sincerely,

Helen Zitomer

11 McKay Circle

Cabin John, Md. 20818

for

MOBIKE (Montgomery Bicycle Advocates)

7121 Thomas Branch Dr.

Bethesda, Md. 20817

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1/5/2004

Esmaili, Yasamin

From: Eric Gilliland [gill@waba.org]
Sent: Friday, January 02, 2004 2:13 PM
To: Esmaili, Yasamin
Subject: MacArthur Blvd Bikeway Improvements

Dear Ms. Esmaili:

Thank you for the opportunity to submit comments on the MacArthur Boulevard Bikeway Improvement Project. The Washington Area Bicyclist Association (WABA) would like to express its support for the "Alternative 2 - Modified" plan proposed by the Department of Public Works and Transportation. This proposal would benefit cyclists of all abilities by adding two feet of paving to each side of the road, which, when combined with one foot taken from each motor traffic lane, will yield a 3-foot wide area for road cyclists. In addition, the proposed 5 foot landscaped barrier would be an improvement over current conditions.

We would, however, prefer that any decisions regarding markings and signage for the on-road cycling space be deferred until the detail design stage of the project. This would be consistent with design processes described in the Draft Master Plan of Bikeways now under consideration.

The MacArthur Boulevard Bikeway project presents unique circumstances in that it is already a key established bikeway, yet the existing conditions are very constrained. We expect that DPWT will apply creativity as well as engineering skills to meet these challenges, and that the best possible solution may differ from standards accepted for new, unconstrained projects.

I have sent hard copies of our comments via US mail. Thank you for your consideration. Please feel free to call if you have any questions.

Sincerely,

Eric Gilliland
Acting Executive Director
Washington Area Bicyclist Association

CC Holger Serrano

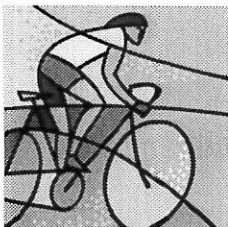
EXECUTIVE SUMMARY

INTRODUCTION

The Montgomery County Department of Public Works and Transportation (DPWT) Division of Engineering has completed a Phase I Facility Planning Study for improvements to the MacArthur Boulevard bikeway in southern Montgomery County. The limits of the study are from the Old Anglers Inn near Stable Lane to the Montgomery County-District of Columbia line, a distance of approximately 7.3 miles. The Study, which was conducted from November 2002 through June 2003, provided for ample public participation and meaningful dialogue with all project stakeholders. The Study Area is in the Potomac Subregion and Bethesda-Chevy Chase Master Plan Areas of Montgomery County. This study included a statement of the project purpose and need; development of alternatives; and analysis of the feasibility, benefits, environmental features, and impacts of the proposed improvements.

The Phase I study has included the following activities:

- Gathering and assembling photogrammetric mapping
- Presenting the initial stage of facility planning and obtaining input from the community at a public meeting held on January 22, 2003 at Bannockburn Elementary School
- Conducting field observations of the Study Area
- Inventorying environmental resources, including preliminary identification of wetlands, parklands, and forest resources
- Evaluating horizontal alignments of the proposed bikeway for various alternatives
- Developing a typical section that includes bike lanes and a separated shared use path, but no new travel lanes
- Analyzing cross sections to determine impacts
- Presenting alternatives at a public meeting held on April 23, 2003 at Bannockburn Elementary School
- Reporting study results.



EXECUTIVE SUMMARY

These tasks culminated with the preparation of this Project Prospectus, which includes the study recommendations and any elements of the project to be furthered for resolution in the 35% design phase. This Project Prospectus concludes Phase I of the Transportation Facility Planning Process.

STUDY RECOMMENDATIONS

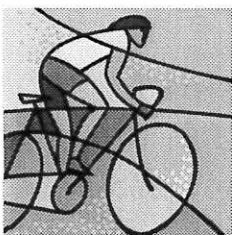
The Study, conducted by a team of representatives from the DPWT, M-NCPPC, the National Park Service, and the US Army Corps of Engineers concluded with a recommendation that Alternative 2 be forwarded to Phase II of Facility Planning (35% design). This alternative consists of the following features:

- Upgrading the existing shared use path using AASHTO guidelines including a minimum five-foot open space separation from the road where possible and a 42-inch high physical barrier where required
- Eliminating the crossover of the existing bikeway near Persimmon Tree Road. The proposed alignment maintains the entire bikeway on the south side of MacArthur Boulevard
- Improving the overall safety of the shared use path by adding signing and pavement markings, lane designations, vehicular and bikeway approach and caution signs
- Improving connectivity between the MacArthur Boulevard shared use path and other bikeways and paths within the Potomac Subregion and Bethesda-Chevy Chase planning areas including direct connections to the Little Falls shared use bike path, and the Chesapeake and Ohio Canal National Historical Park Towpath.

The MacArthur Boulevard shared use path would tie into the proposed parking lot across from Old Anglers Inn to both the Chesapeake and Ohio Canal National Historical Park and continued on-road bicycling along MacArthur Boulevard to Little Falls Road. At the DC Line, the shared use path would tie into the existing shared use path alignment in the District.

This alternative improves safety and accessibility for all experience levels of bicyclists and pedestrians, and enhances connectivity with other bikeways near MacArthur Boulevard. In addition, spot improvements proposed to improve deficiencies and immediate safety concerns on MacArthur Boulevard have been included in the recommended alternative as follows:

- MacArthur Boulevard at Old Anglers Inn: coordinate with the NPS to terminate the shared use path at the parking lot to provide a smooth and safe transition from the shared use path to the shoulders.



EXECUTIVE SUMMARY

- MacArthur Boulevard at Clara Barton Parkway: add roadway markings warning vehicles of the approaching 3-way stop and add signage on Clara Barton Parkway warning motorists of the MacArthur Boulevard bikeway. Reducing the turning radius of the eastbound right turn onto Clara Barton Parkway will help slow traffic entering the intersection.
- MacArthur Boulevard at I-495: add appropriate electrical lighting under the bridge to increase visibility, safety, and comfort of bicyclists and pedestrians.
- MacArthur Boulevard at Tomlinson Avenue: reconfigure the parking lot in front of Captain's Market to alleviate congestion during peak periods and reduce parking on the bike path.
- MacArthur Boulevard and Ericsson Road: reduce the turning radius at the intersection to slow traffic and keep vehicular traffic off the bikeway. Add signs warning motorists as they exit the Clara Barton Parkway of the bikeway at MacArthur Boulevard.
- MacArthur Boulevard at Wilson lane and Union Arch Bridge: reconfigure the parking lot, bus stop and bikeway to separate bicycle and vehicular traffic. The parking lot would provide a spur connection from the shared use path to the Chesapeake and Ohio Canal National Historical Park Towpath at the parking area.
- MacArthur Boulevard at Walhonding Road: reconfigure the parking lot with a defined entry and exit to minimize potential vehicle / bicycle conflicts. The reconfigured parking lot would provide a spur connection from the shared use path to the Chesapeake and Ohio Canal National Historical Park Canal Towpath.
- MacArthur Boulevard at Sangamore Road: install pedestrian signals and crosswalks to provide a safer crossing for bicyclists and pedestrians. Add signs at the entrance to the Little Falls Trail to warn motorists of potential conflicts with bicyclists as well as designate the entrance for bicycle access to the trail.
- MacArthur Boulevard and Winward Drive: create a five-foot minimum separation between the roadway and shared use path. Additional "no parking" signs would be installed to deter parking on the shared use path.



IMPACTS

Table 1 below provides a summary of the potential impacts from the proposed construction of the Recommended Alternative:

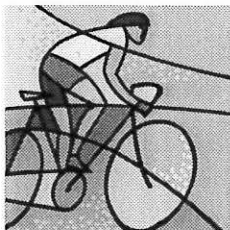
Table 1
Summary of Environmental,
Property, and Right-of-Way Impacts for Alternative 2

| Impact | Quantity |
|-------------------------------|---------------------|
| Steep Slopes (acres) | 2.08 |
| Wetlands (acres) | 0.05 |
| Floodplain (acres) | 0.41 |
| Parkland (acres) | 2.37 |
| Forest (acres) | 0.70 (Forest edge) |
| Specimen Trees | 4 |
| Streams (linear feet) | 8' (natural stream) |
| Number of Affected Properties | 8 |
| Right-of-Way (acres) | 0.76 |

CONSIDERATIONS FOR PHASE II FACILITY PLANNING

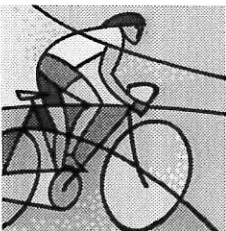
If the Montgomery County Council approves funding for Phase II of Facility Planning, the following activities should be included:

- Continued development of more accurate base mapping
- Refining engineering alignments and intersection improvements
- Determining more detailed impacts
- Determining more exact right-of-way requirements
- Conducting public meetings to update citizens on more detailed design



EXECUTIVE SUMMARY

- Preparing the project for County Council action
- Coordination with the National Park Service to tie the MacArthur Boulevard Bikeway into the proposed design of the parking lot across from Old Anglers Inn and transition to on-road biking safely
- Coordinate with the ACOE to develop designs for the parking lots at the Union Arch Bridge and at Walhonding Road as part of the recommended alternative.



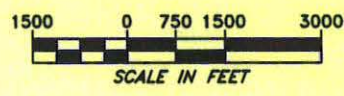
STUDY LIMIT



LEGEND

- EXISTING CLASS 1 SHARED USE PATH
- BIKEWAY
- EXISTING CLASS 1 SHARED USE PATH (SUBSTANDARD) BIKEWAY
- RIVER FALLS COMMUNITY ASSOCIATIONS
- STUDY AREA

SHARED USE PATH (CLASS I): A bikeway physically separated from motorized vehicular traffic by an open space or barrier.



MACARTHUR BOULEVARD BIKEWAY STUDY
DRAFT: WORK-IN-PROGRESS

| | | | |
|--|-----------------------|--|------------------------------|
| | STUDY AREA MAP | | FIGURE: I-1 |
| | DATE: | OCTOBER 2003 | |
| | SCALE: | 1" = 3000' | |
| | | Engineers/Architects/Planners/Surveyors 4 NORTH PARK DRIVE, SUITE 300 HUNT VALLEY, MARYLAND 21030 TELEPHONE: 410-785-7220 | |

SECTION I

PROJECT PURPOSE AND NEED

BACKGROUND

The Montgomery County Department of Public Works and Transportation (DPWT) has initiated a study of improvements to the bikeway along MacArthur Boulevard from the Old Anglers Inn near Stable Lane to the Montgomery County-District of Columbia line (DC line), a distance of approximately 7.3 miles. The Study Area is shown in **Figure I-1**. The existing roadway and bikeway facility vary in condition, cross section, and compliance with current shared use path standards. In some areas there is a shared use path with a variable-width grass separation. In other areas, there is a bike path that varies in width and also doubles as a shoulder to the adjacent roadway. Separation between the roadway and bikeway consists of a double white line along the route with flex posts located in some areas. The study is being conducted in accordance with the following documents:

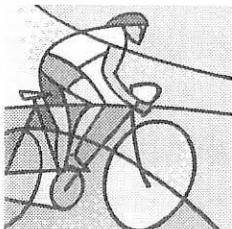
- M-NCPPC's December 1993 Approved and Adopted General Plan Refinement of the Goals and Objectives for Montgomery County (General Plan)
- M-NCPPC's October 2002 Approved and Adopted Potomac Subregion Master Plan
- M-NCPPC's April 1990 Approved and Adopted Bethesda-Chevy Chase Master Plan
- M-NCPPC's June 1978 Approved and Adopted Master Plan of Bikeways.

The DPWT has met with concerned citizens, representatives of community associations, the NPS, and the US Army Corp of Engineers to discuss possible solutions for improving the bikeway. Several community groups, including the Cabin John Citizens Association, the Brookmont Civic League, the Bannockburn Citizens Association, and the Glen Echo Citizens Association, have expressed their needs for the bikeway through correspondence with the County and local elected officials regarding the condition of the bikeway.

MASTER PLANS

POTOMAC SUBREGION MASTER PLAN

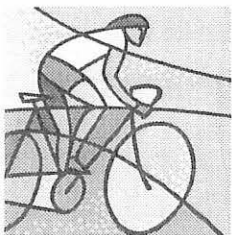
A portion of the MacArthur Boulevard Study Area, from the Old Anglers Inn to the Capital Beltway lies within the Potomac Subregion of Montgomery County. The Potomac Subregion is a semi-



PROJECT PURPOSE AND NEED

rural area northwest of Washington D.C., as described in the October 2002 Potomac Subregion Master Plan. This plan classifies the bikeway along MacArthur Boulevard as an existing Class I Bikeway, one that is physically separated from motorized vehicular traffic by an open space or barrier either within the highway right-of-way or within an independent right-of-way. The transportation analysis performed for the Potomac Subregion Master Plan concluded that a network of bikeways to improve bicycle accessibility and safety between major community destinations points should be created. Bicycle safety should be augmented by considering safety improvements that make bicycle use more compatible on all arterials. Specific recommendations of the Master Plan include the following:

- In the interest of preserving the semi-rural character of the Subregion, a two-lane cross-section for roads (including MacArthur Boulevard) should be maintained.
- MacArthur Boulevard is designated as a Scenic Byway between the Old Anglers Inn and the Clara Barton Parkway.
- Curb cuts should be limited on MacArthur Boulevard between the Clara Barton Parkway and Falls Road, including consolidating driveways because of MacArthur Boulevard's Scenic Byway designation.
- Local intersection improvements should be allowed on a case-by case basis to address safety and congestion issues.
- Class I bikeways are preferred within the subregion to accommodate the greatest number of users. However, on-road cyclists may also be accommodated, but every effort should be made to provide a continuous Class I – shared use path.
- A system of bike routes that serves riders with varying degrees of experience should be created.
- Bike lanes should be marked with symbols to indicate their location on roads for drivers and cyclists.
- The Class I bikeway along Falls Road from Wootton Parkway to MacArthur Boulevard should be completed.
- Connect bike path along Persimmon Tree Road to MacArthur Boulevard
- Connect bike path along Seven Locks Road to MacArthur Boulevard
- Connect bike lanes along Wilson Boulevard to MacArthur Boulevard



- Connect bike lanes along Goldsboro Road to MacArthur Boulevard.

BETHESDA-CHEVY CHASE MASTER PLAN

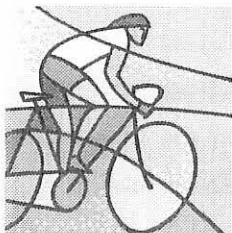
The portion of the MacArthur Boulevard Study Area between the Capital Beltway and the District of Columbia Line lies within the Bethesda-Chevy Chase area of Montgomery County. The Master Plan includes a recommendation for MacArthur Boulevard to maintain its profile as a two-lane road with no widening to urban standards and maintain the one lane bridge at Cabin John. The Master Plan does recommend that the intersection of MacArthur Boulevard and Sangamore Road be reconstructed. The Bethesda-Chevy Chase Master Plan also includes recommendations for implementing the 1978 Master Plan of Bikeways and to improve and support pedestrian safety along arterial roadways. The Master Plan recommends the expansion of the system of pedestrian paths and bikeways to link residential areas with public facilities, commercial areas, and transit services.

MASTER PLAN OF BIKEWAYS

In addition, the 1978 Montgomery County Master Plan of Bikeways was developed to foster the creation of a continuous, interconnected systems of bikeways to serve recreation and transportation needs. This plan includes following goals for the Montgomery County Bikeway system and MacArthur Boulevard:

- Provide for the development of a system of bikeways to encourage physical fitness and healthful recreation
- Provide bikeways that provide for and enhance the safety of bicyclists
- Encourage bicycling as an alternative mode of transportation
- Provide bicycle facilities in areas where they will be of maximum benefit to as many cyclists and potential cyclists as possible
- MacArthur Boulevard bikeway is designated as a 7.3-mile Class I shared use bike path from the DC line to Old Anglers Inn.

The Montgomery County Master Plan of Bikeways will be updated in 2003/2004. Additional bikeways may be identified as part of that planning process.



THE STUDY AREA

MacArthur Boulevard serves a large number of communities and neighborhoods, and provides access to major commuter routes between the District of Columbia, Virginia and Maryland by way of the Clara Barton Parkway and the Capital Beltway (I-495).

Between the DC line and Falls Road, MacArthur Boulevard is classified as an arterial with a minimum right-of-way width of 80 feet. From Clara Barton Parkway to Falls Road, MacArthur Boulevard is designated as part of the Chesapeake and Ohio Canal National Historical Park Canal Route Scenic Byway with a posted speed of 35-mph. It serves multi-modal commuters via public transportation (Montgomery County Ride On and Washington Metropolitan Area Transit Authority lines), bicycles, pedestrians, and passenger vehicles. Within the corridor, the roadway varies from an open to a closed section; however, the majority of MacArthur Boulevard is an open section with drainage ditches. The adjacent bikeway is also improperly used as off-street parking in some locations. Several areas along the roadway have a guardrail where MacArthur Boulevard is constructed along a hillside.

The right-of-way where MacArthur Boulevard was constructed is owned by the US Army Corps of Engineers (ACOE) and the roadway itself is maintained by Montgomery County. In the 1800's, the ACOE constructed the Washington Aqueduct, a nine-foot diameter masonry conduit under what is now MacArthur Boulevard. During the 1920's, a nine-foot diameter, unreinforced concrete, horseshoe shaped aqueduct was constructed, parallel to the first conduit, approximately 30 on center. Between 1975 and 1977, Montgomery County constructed the 7.3-mile shared use path along MacArthur Boulevard above the newer conduit, with approximately two feet of earth cover. The ACOE restricts construction above these conduits due to the shallow depth of cover, and any foundations that need to be constructed would require a depth less than 20 to 24 inches. **Figure I-2** shows a typical section of the ACOE conduit under MacArthur Boulevard. There are several access points along MacArthur Boulevard, which the ACOE uses to maintain the conduits.

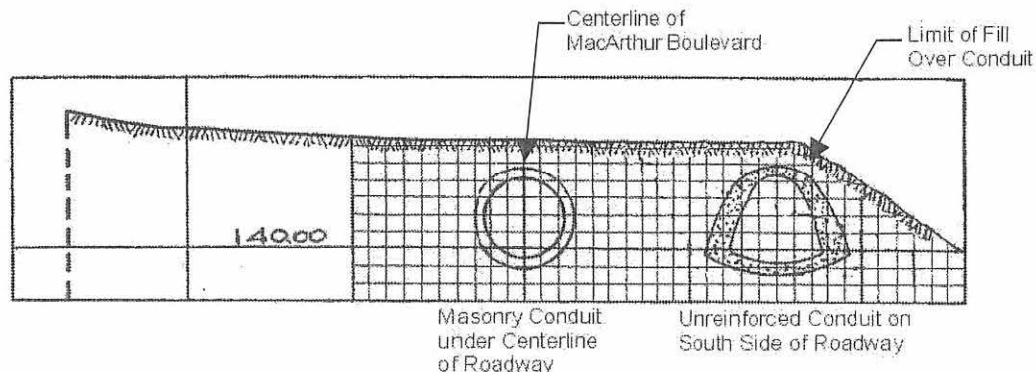
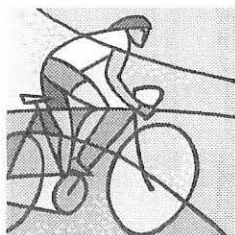


Figure I-2: Typical Section of ACOE Conduits Under MacArthur Boulevard



PROJECT PURPOSE AND NEED

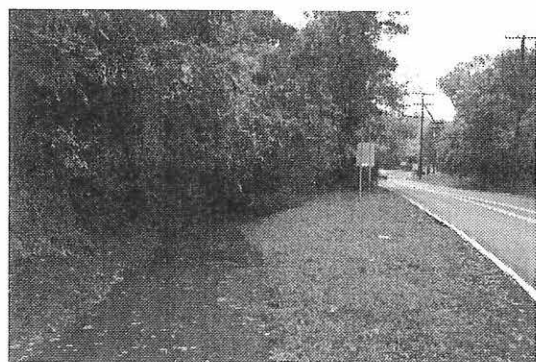
The shared use path was constructed with a five-foot-wide green space separating it from the roadway. Over the years, however, maintaining the green space became difficult, and with each repaving of MacArthur Boulevard, the green space in many locations was paved with asphalt.

The existing shared use path is a multi-use facility serving commuter bicyclists during the morning and evening rush hours. Pedestrians use the bikeway throughout the day for recreational walking and as a means of travel to community destinations. Recreational bicyclists use the bikeway daily. The bikeway characteristics alternate between a standard and substandard shared use path (see **Figures I-3** and **Figure I-4**). As the bikeway nears the Montgomery County/District of Columbia line, the shared use path becomes a sidewalk with curb and gutter. The shared use path is located on the south side of MacArthur Boulevard throughout the Study Area with one exception. The shared use path crosses, at grade, from the south side of MacArthur Boulevard to the north side for a short length and crosses back to the south side immediately west of Persimmon Tree Road. The westernmost portion of the Study Area has pavement in very good condition, and it has been overlaid and re-stripped recently. However, there are areas throughout the Study Area that require overlay/patching, which the County is planning to complete in 04 fiscal year.

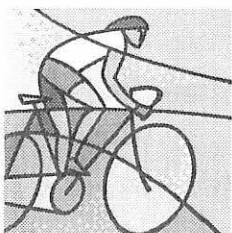
Land uses for the Study Area include Single Family Residential primarily on the north side of MacArthur Boulevard and Private or Public Recreation, Public Utilities/Federal Buildings and Single Family Residential along the south side of MacArthur Boulevard. There are small daycare centers, veterinary hospitals, general stores and independent restaurants primarily on the north side except for near the District of Columbia line where there are commercial uses on both sides. In addition, **Figure I-1** shows the eleven communities adjacent to MacArthur Boulevard. The Study Area is naturally vegetated with several stream crossings and several wet ditches paralleling the bikeway and roadway. The Study Area is forested and several existing parks have been identified as Forest Protection Areas in the Planning Board Potomac Subregion Master Plan. The Study Area is not identified as a Forest Restoration Area in the plan.



**Figure I-3: Substandard Shared Use Path
(Not Separated from Roadway)**



**Figure I-4: Standard Shared Use Path
(Separated from Roadway)**



PROJECT PURPOSE AND NEED

The Potomac Subregion Master Plan and the Bethesda-Chevy Chase Master Plan identify the Old Anglers Inn, Cabin John Hotel Gas House, Glen Echo Chautauqua, Bonfield's Service Garage, and the Cabin John Aqueduct (stone bridge over Cabin John Parkway) as historic resources within the Study Area. In addition, several national and regional parks and museums are located within the Study Area, including:

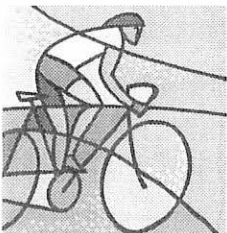
- The Chesapeake and Ohio National Historical Park and Trail
- Cabin John Regional Park
- Glen Echo Arts and Crafts Center
- Discovery Creek Children's Museum
- Clara Barton National Historic Site.

In addition to this MacArthur Boulevard Bikeway Study, several other projects have either been recently completed or are in the design process, including:

- Improvements to the entrance road of the Chesapeake and Ohio Canal National Historic Park and Trail (National Park Service)
- The DPWT MacArthur Boulevard bikeway enhancement project at 79th Street through Seven Locks Road and the intersection at Persimmon Tree Road (DPWT)
- Repaving of a portion of MacArthur Boulevard roadway and path (DPWT)
- Recent renovation of the Washington Aqueduct (ACOE) and the one-lane Union Arch Bridge.

PURPOSE

The purpose of the MacArthur Boulevard Bikeway project is to upgrade the existing shared use path to current standards to promote usage and enhance safety for all users, and to improve the safety of bicycling on the MacArthur Boulevard roadway to better serve the experienced bicyclist.



NEED

Improvements to the MacArthur Boulevard bikeway are needed for several reasons. Users have cited poor safety, lack of proper signage for cars and bicycles, poor condition of some areas of the riding surface, lack of visible and effective barriers to prevent vehicles from encroaching on the shared use path, illegal parking on the shared use path, and use of the shared use path by delivery and mail trucks, trash trucks and buses, which interfere with bicycle and pedestrian operations and safety. The needs to be addressed by this project are discussed in more detail in the following sections, and are summarized below:

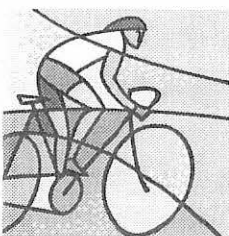
- Improve safety of the bikeway
- Develop a facility or facilities to be used by recreational and commuter bicyclists as well as pedestrians
- Improve the connectivity of bikeway network in the Potomac Subregion and the Bethesda-Chevy Chase area.

IMPROVE SAFETY OF THE BIKEWAY

A major consideration in the study is the need for improved safety of the bikeway. Many conditions along the bikeway contribute to driver and bicyclist conflict at intersections due to a lack of proper signage, illegal parking on the bikeway, lack of separation between vehicles and bicycles, and the condition of the shared use path riding surface. The Cabin John Citizens Association prepared a report identifying its concerns about the bikeway, including correcting and controlling run-off and erosion onto the shared use path surface, illegal parking on the shared use path, and conflicts between motorists, pedestrians and bicyclists. Other community associations, including the Bannockburn Citizens Association and the Brookmont Civic League have identified other areas of concern. These include the parking lots at Walhonding Road and the one-lane Union Arch Bridge; the sharp curves between Walhonding Road and Maryland Avenue; the lack of signage at Clara Barton Parkway, Glen Echo Park, and Cabin John Parkway; the lack of physical separation between the roadway and the shared use path; and excessive speeds of vehicles.

Bikeway Signage

There is a lack of traffic control for the bikeway, including signing and pavement markings, lane designations, and vehicular and bikeway approach and caution signs. Where bikeway signage exists, the signage controls only one direction of traffic. For example, two small signs are located where the shared use path crosses from the south to the north side of MacArthur Boulevard, but these signs face the path,



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and can only be seen by path users crossing at this location. Consequently, there are no signs warning motorists of the crossing and no crosswalk markings across the roadway.



Figure I-5: Bikeway Lacks Marking and Signage throughout Study Area

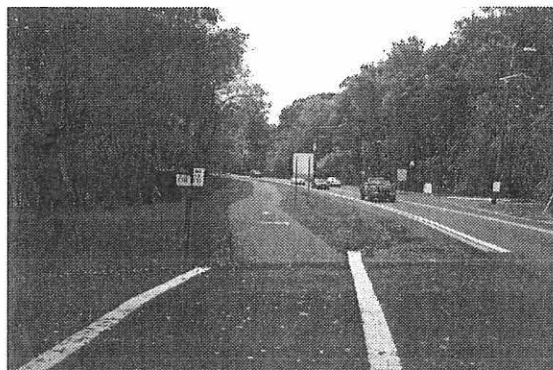
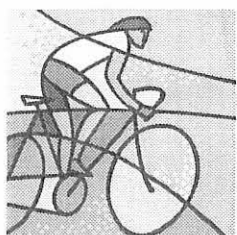


Figure I-6: Existing Bikeway Marking at MacArthur Boulevard and Cornell Avenue

The 1999 AASHTO Guidelines for Bicycle Facility Design recommends that designated paths be separated by a minimum of five feet from the roadway. **Figure I-5** and **Figure I-6** show the inconsistent markings, lack of separation, and lack of appropriate signage along MacArthur Boulevard. The signage should alert bicyclists and motorists where the bike path transitions to sidewalks. Signing helps control driver and bicyclist operations at intersections, cautions bicyclists where the shared use path narrows or widens, and alerts motorists and bicyclists to roadway and bikeway obstructions. Signing of the bikeway and roadway would improve the safety of the bikeway along MacArthur Boulevard.

Vehicles Using the Shared Use Path

There have been complaints documented as far back as 1986 of motorists driving and parking on the shared use path, buses stopping on the path, and delivery vehicles parking on the path to make deliveries (see **Figure I-7**). There are several “No Parking” signs located along MacArthur Boulevard, but parking on the path still occurs in some areas. One area is located between Windward Place and Sangamore Lane because of the lack of on-street parking and off-street spaces. Parking also occurs regularly on the path during special events at the Glen Echo Park and for other events, causing the grass separation between the shared use path and roadway to deteriorate. Parking by residents, guests, and service truck operators also occurs regularly on the path between 75th Place to Persimmon Tree Road opposite Captain's Market and the Alpine Veterinary Hospital.



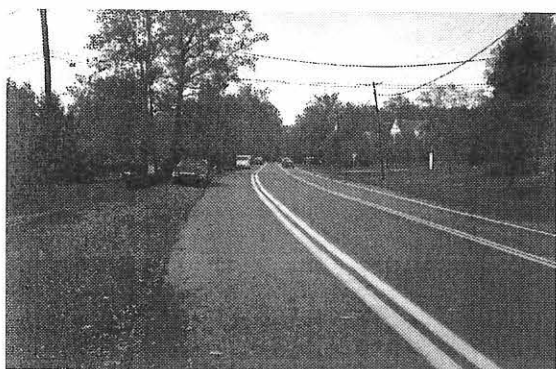


Figure I-7: Vehicles Parking and Driving on Bikeway



Figure I-8: Parking Lot Across from Old Anglers Inn

There are several parking lots located adjacent to MacArthur Boulevard. The lack of defined entrance and egress points at the Union Arch Bridge, Sycamore Island and the Old Anglers Inn causes conflicts between vehicular and pedestrian/bicyclist traffic when vehicles cross over, back onto, and park on the path (see **Figure I-8**).

Evaluating the shared use path alignment at locations where parking areas intersect with the path, adding bikeway markings and “No Parking” signs could help eliminate illegal parking on the path and improve the safety of the path for bicyclists and pedestrians. However, additional enforcement would be needed to make these measures more effective.

Separation between Roadway and Shared Use Path

There are some locations where barriers have been erected to separate the roadway and the shared use path (see **Figure I-9**). However, the majority of the path that is adjacent to the roadway is not separated physically (see **Figure I-10**) which does not meet current AASHTO standards. MacArthur Boulevard is unsafe for bikeway users at some of the curves where vehicles encroach into the path. There are no physical barriers at many of these locations to keep vehicles from drifting into the path, and with narrowed sight distances around the curves, vehicles do not see bicyclists ahead. Portions of the bikeway near Maryland Avenue and at Glen Echo Circle are extremely hazardous for bicyclists because the shared use path is narrower and constrained by the contiguous vehicle lane and guardrail on the other side. When vehicles encroach on the path, the bicyclists have little opportunity to move away from traffic.

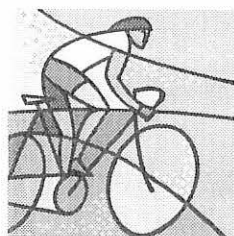




Figure I-9: Flex Posts Installed to Separate Bikeway and Roadway

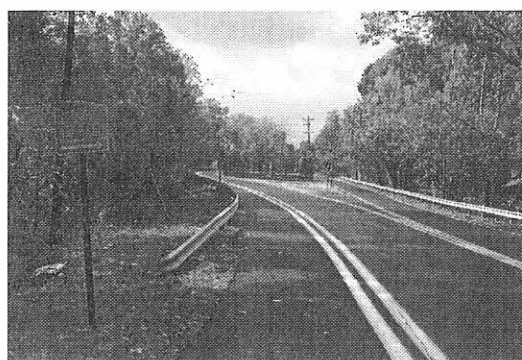


Figure I-10: No Physical Separation between Bikeway and Roadway

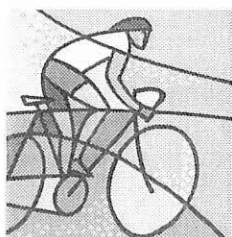
In many locations the shared use path is ten to twelve feet wide and is adjacent to the eastbound (south side) travel lane. This wide path occurred primarily as a result of paving over the green space with asphalt. To motorists, the shared use path appears to be another travel lane or wide shoulder and use it as such. This condition makes the path substandard and unsafe, especially without a barrier separation.

The existing shared use path is designed for two-way bicycle travel. When the path is adjacent to the roadway without physical separation, it requires one direction of bicycle traffic to ride against motor vehicle traffic. This is illegal and creates an unsafe condition as motorists entering and exiting the roadway often do not think to look for bicyclists approaching from either direction, as they are not expecting two-way bicycle traffic adjacent to the roadway. Physically separating and signing the shared use path will improve the safety of two-way travel for bicyclists. More than 50% of bicycle accidents that occur in Maryland are “wrong way” cycling accidents.

The Potomac Subregion Master Plan recommends creating bikeways that serve riders of all experience levels with a separated path and having a recommended width between eight to ten feet wide to facilitate shared use by pedestrians and bicycles. This would be safer than the existing shared use path as it provides a physical separation between motor vehicles and bicyclists and pedestrian.

Riding Condition

The shared use path surface in certain areas is uneven and has depressions in the pavement allowing water to pond (see **Figure I-11**). Debris, gravel and obstructions in the path contribute to unsafe riding conditions. Portions of the path have worn paving and cracked asphalt. These areas are not widespread, but are unsafe for the rider (see **Figure I-12**). Stabilized shoulders were recently installed in an attempt to eliminate gravel from falling on the path. However, these shoulders have deteriorated due to vehicles driving on them, creating more gravel on the path. Off street parking lots and driveways, constructed of gravel, contribute to the gravel debris on the shared use path.



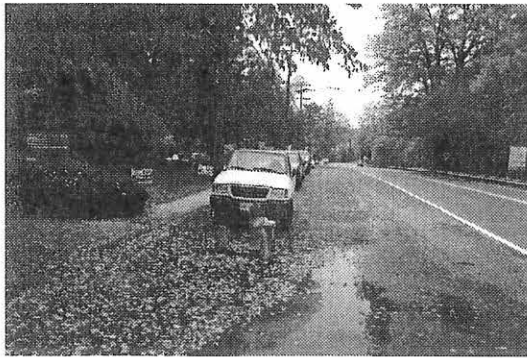


Figure I-11: Depressions and Ponding Water in Bikeway



Figure I-12: Uneven Surface Condition of Bikeway

The smoothness of the riding surface affects comfort, safety and the speed of bicyclists. Pavement surfaces need to be smooth, and the pavement needs to be uniform in width. Depressions, debris, and ponding water can cause a bicyclist to swerve into the path of vehicular traffic. Also, obstructions causing bicyclists to decrease speed below a comfortable level results in less stability of the bicyclist.

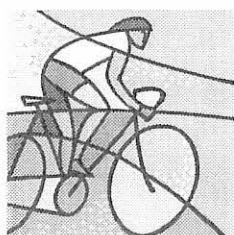
Bicycle and Pedestrian Accident History

The Montgomery County Traffic and Parking Services Division provided accident data involving pedestrians and bicyclists for the period of 1995 to 2001. For the period provided, there have been two accidents involving vehicles and pedestrians and eight accidents involving vehicles and bicycles. None of these accidents resulted in a fatality. Of the eight accidents involving vehicles and bicycles, five occurred at intersections and three were near an intersection. The five intersections included were 79th Place, 79th Street, Seven Locks Road, Oberlin Avenue, and Ericsson Road. **Figure I-13** at the end of this section indicates the location of each accident occurring in the six-year accident history period.

Five of the accidents occurred between Seven Locks Road and just east of I-495. Another three accidents are clustered between Ericsson Road and just west of 75th Place. One accident occurred immediately adjacent to the Clara Barton Parkway intersection with MacArthur Road and another accident occurred immediately to the west of Bannockburn Drive.

DEVELOP A FACILITY OR FACILITIES TO BE USED BY RECREATIONAL AND COMMUTER BICYCLISTS AS WELL AS PEDESTRIANS

Bicyclists and pedestrians have the same mobility needs as other transportation users. However, the skills, confidence and preferences of bicyclists differ dramatically. Some riders are confident riding anywhere they are legally allowed to operate and can negotiate busy roads without any special bicycle accommodations. Other bicyclists are less confident and prefer to use roadways with a more comfortable



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amount of operating space. Children may be confident riders, but have yet to develop the traffic sense and experience of an everyday adult rider. Advanced or experienced riders generally use their bicycles as they would a motor vehicle. They ride for convenience and speed and want direct access to destinations with minor detours or delays. Basic riders prefer to ride on neighborhood streets and shared use paths (Class I bikeways). Children, riding on their own or with parents, require access to destinations, well-defined pavement markings, and bikeways in which they all may travel, without riding into major traffic lanes. MacArthur Boulevard has an above average number of experienced bicyclists.

Pedestrians require a shared use facility to meet their mobility needs. Shared use facilities offer opportunities not provided by the roadway. They can serve as recreational facilities or serve as direct commuter routes. A physical separation between the roadway and shared use path is preferable to provide a safe and comfortable path for pedestrians. The existing MacArthur Boulevard bikeway is inconsistent in providing a facility for commuters, recreational bicyclists, and pedestrians. This inconsistency limits the areas where pedestrians can travel safely without entering the roadway.

During the week of July 28 through August 1, 2003, Montgomery County conducted a bicycle and pedestrian traffic study at four intersections along MacArthur Boulevard:

- Ericsson Road and the spur from Clara Barton Parkway at MacArthur Boulevard
- Sangamore Road and Madaket Road at MacArthur Boulevard
- Wilson Lane at MacArthur Boulevard
- Clara Barton Parkway at MacArthur Boulevard.

The counts were conducted for both on-road bicyclists, and users of the bike path, including pedestrians and bicyclists. The counts were conducted simultaneously at the four intersections and thus indicate the weekday usage at those intersections and not a cumulative total along the entire roadway segment in the Study Area. However, the counts at these four intersections provide the most compelling evidence of on-road and bike path usage at four of the most critical areas in the Study Area. **Table I-1** summarizes the counts for the 2003 bicycle and pedestrian traffic study. The counts separated the number of bicycles riding on-road from the bicyclists and pedestrians using the bike path.

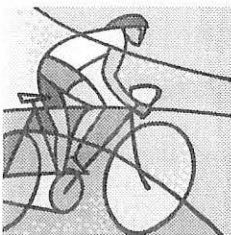
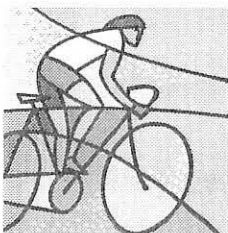


Table I-1
2003 Bicycle and Pedestrian Counts at Four Locations Along MacArthur Boulevard

| Date | Sangamore and Madaket Road | | Ericsson Road and Clara Barton Parkway Spur | | Wilson Lane | | Clara Barton Parkway | |
|--------------------|----------------------------|------------|---|------------|-------------|------------|----------------------|-----------|
| | On-Road | Bike Path | On-Road | Bike Path | On-Road | Bike Path | On-Road | Bike Path |
| Monday 7/28/03 | | | | | | | | |
| Morning | 29 | 7 | 15 | 13 | 35 | 28 | 20 | 6 |
| Midday | 19 | 21 | 17 | 21 | 24 | 15 | 21 | 0 |
| Evening | 13 | 35 | 18 | 9 | 0 | 0 | 9 | 5 |
| Daily Total | 61 | 63 | 50 | 43 | 59 | 43 | 50 | 11 |
| Tuesday 7/29/03 | | | | | | | | |
| Morning | 16 | 59 | 26 | 21 | 4 | 5 | 20 | 2 |
| Midday | 26 | 75 | 45 | 18 | 33 | 31 | 32 | 0 |
| Evening | 42 | 14 | 77 | 24 | 49 | 42 | 23 | 5 |
| Daily Total | 84 | 148 | 148 | 63 | 86 | 78 | 75 | 7 |
| Wednesday 7/30/03 | | | | | | | | |
| Morning | NC | NC | 28 | 17 | 74 | 35 | 28 | 4 |
| Midday | NC | NC | 73 | 42 | 99 | 42 | 65 | 0 |
| Evening | NC | NC | 27 | 50 | 81 | 24 | 30 | 0 |
| Daily Total | NC | NC | 128 | 109 | 254 | 101 | 123 | 4 |
| Thursday 7/31/03 | | | | | | | | |
| Morning | 37 | 20 | 14 | 43 | 18 | 29 | 15 | 2 |
| Midday | 14 | 27 | 42 | 21 | 59 | 27 | 37 | 1 |
| Evening | 7 | 7 | 37 | 16 | 53 | 18 | 14 | 1 |
| Daily Total | 58 | 54 | 93 | 80 | 130 | 74 | 66 | 4 |
| Friday 8/01/03 | | | | | | | | |
| Morning | 19 | 9 | 18 | 19 | 13 | 15 | 12 | 4 |
| Midday | 19 | 18 | 4 | 12 | 19 | 18 | 13 | 4 |
| Evening | 76 | 32 | 11 | 8 | 21 | 13 | 5 | 2 |
| Daily Total | 114 | 59 | 33 | 39 | 53 | 46 | 30 | 10 |

The bicyclist and pedestrian traffic counts were limited to weekdays and did not include a Saturday or Sunday count. The counts for Wednesday at the intersection of Sangamore and Madaket Road were unavailable and are reflected in the above table as NC (no count). During the morning period,



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the daily average of on-road bicyclists was 88 compared to 68 bicyclists and pedestrians using the bike path. During the midday period, the average of on-road bicyclists was 132 compared to 79 bicyclists and pedestrians using the bike path. During the evening period, the average of on-road bicyclists was 119 compared to 61 bicyclists and pedestrians using the bike path. Both the averages and individual daily counts indicate that the on-road and bike path usage peak period is during midday.

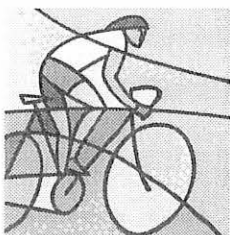
The existing bikeway alternates between a standard and substandard shared use path. This inconsistency limits the destinations to which less experienced bicyclists and pedestrians can comfortably and safely travel because the substandard portions of the bike path require travel adjacent to the roadway without the safety of physical separation from motorists. A standard Class I bikeway (shared use path) would serve a greater number of bicyclists as well as pedestrians. However, experienced bicyclists (especially commuters) will still prefer to ride on the road and will be better served by a Class II Bikeway (bike lanes or shoulders).

IMPROVING THE CONNECTIVITY OF BIKEWAY NETWORK IN THE POTOMAC SUBREGION AND THE BETHESDA-CHEVY CHASE AREA

The Potomac Subregion and the Bethesda-Chevy Chase Master Plans recommend the expansion of the existing bikeway system within the areas to accommodate the greatest number of users. The Montgomery County Bicycle Route Map and the Potomac Subregion Master Plan identify the existing bike lanes along Goldsboro Road, which intersects MacArthur Boulevard from the north. The bikeway along MacArthur Boulevard should connect to this bikeway to provide a network of bikeways that can be accessed and enjoyed by more people. **Figure I-14** identifies the existing and proposed bikeways connecting to the existing MacArthur Boulevard Bikeway.

Future connections to existing and proposed bikeways in the Potomac Subregion and Bethesda-Chevy Chase area include:

- Connection to existing shared use bike path at Falls Road
- Connection to Seven Locks Road shared use bike path
- Connection to Little Falls shared use bike path



- Connection to Goldsboro Road bike path
- Connection to Wilson Lane bike path
- Chesapeake and Ohio Canal National Historical Park Towpath.

Linking the MacArthur Boulevard Bikeway to existing and proposed bikeways in the Potomac Subregion and the Bethesda-Chevy Chase area would provide a comprehensive network of bikeways for bicyclists, encourage more individuals to choose multi-modal transportation options, reduce the congestion on MacArthur Boulevard during the peak commuting hours, and would promote the health and welfare of residents.

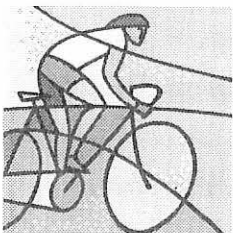
SUMMARY

The MacArthur Boulevard Bikeway is being studied as an important bicyclist and pedestrian facility in the Potomac Subregion and Bethesda-Chevy Chase areas of Montgomery County. As part of the study process, the improvements to the bikeway should be developed in coordination with pedestrian and bicyclist needs, as well as with the various Master Plan goals and other projects in the area. This study is being carried out in response to input from community representatives, as well as the general public as obtained by the Transportation Facility Planning process conducted by the DPWT.

The purpose of the MacArthur Boulevard Bikeway project is to upgrade the existing shared use path to current standards to promote usage and enhance safety for all bicyclists, and to improve the safety of bicycling on the MacArthur Boulevard roadway to better serve the experienced bicyclist.

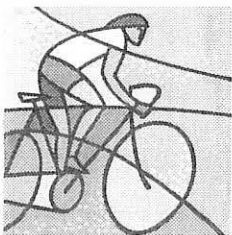
Improvements to the MacArthur Boulevard bikeway are needed for several reasons. Users have cited poor safety, lack of proper signage for cars and bicycles, poor condition of some areas of the riding surface, lack of visible and effective barriers to prevent vehicles from encroaching on the shared use path, illegal parking on the shared use path, and use of the shared use path by delivery and mail trucks, trash trucks and buses, which interfere with bicycle and pedestrian operations and safety. The needs to be addressed by this project include:

- Improve Safety of the bikeway
- Develop a facility or facilities to be used by recreational and commuter bicyclists as well as pedestrians
- Improve the connectivity of bikeway network in the Potomac Subregion and the Bethesda – Chevy Chase area.



PROJECT PURPOSE AND NEED

These factors in combination – safety, usage, and network connectivity – demonstrate the need for improvements to the MacArthur Boulevard Bikeway. Providing a bikeway with a consistent width, pavement markings, appropriate signing, and physical separation would make the MacArthur Boulevard Bikeway safer and would serve recreational and less experienced bicyclists as well as pedestrians. The need for bike lanes or shoulders on the MacArthur Boulevard Roadway to serve more experienced bicyclists will also be evaluated. Planning for future connections to the other existing and proposed bikeways in the Potomac Subregion and Bethesda-Chevy Chase areas would serve additional recreational and commuter bicyclists as well as pedestrians.



STUDY LIMIT

LEGEND

- EXISTING CLASS 1 SHARED USE PATH BIKEWAY
- EXISTING CLASS 1 SHARED USE PATH (SUBSTANDARD) BIKEWAY
- RIVER FALLS COMMUNITY ASSOCIATIONS

SHARED USE PATH (CLASS I): A bikeway physically separated from motorized vehicular traffic by an open space or barrier.

1: 5PM/BIKE/DRY/CLEAR-CLOUDY

2: 7PM/BIKE/DRY/CLEAR-CLOUDY

3: 1PM/BIKE/DRY/CLEAR-CLOUDY

4: 5PM/BIKE/DRY/CLEAR-CLOUDY

5: 4PM/BIKE/DRY/CLEAR-CLOUDY

6: 7PM/BIKE/DRY/CLEAR-CLOUDY

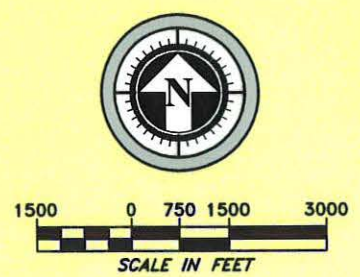
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8: NOON/BIKE/DRY/CLEAR-CLOUDY

9: 6PM/BIKE/DRY/CLEAR-CLOUDY

10: 9AM/PED/DRY/CLEAR-CLOUDY

STUDY LIMIT

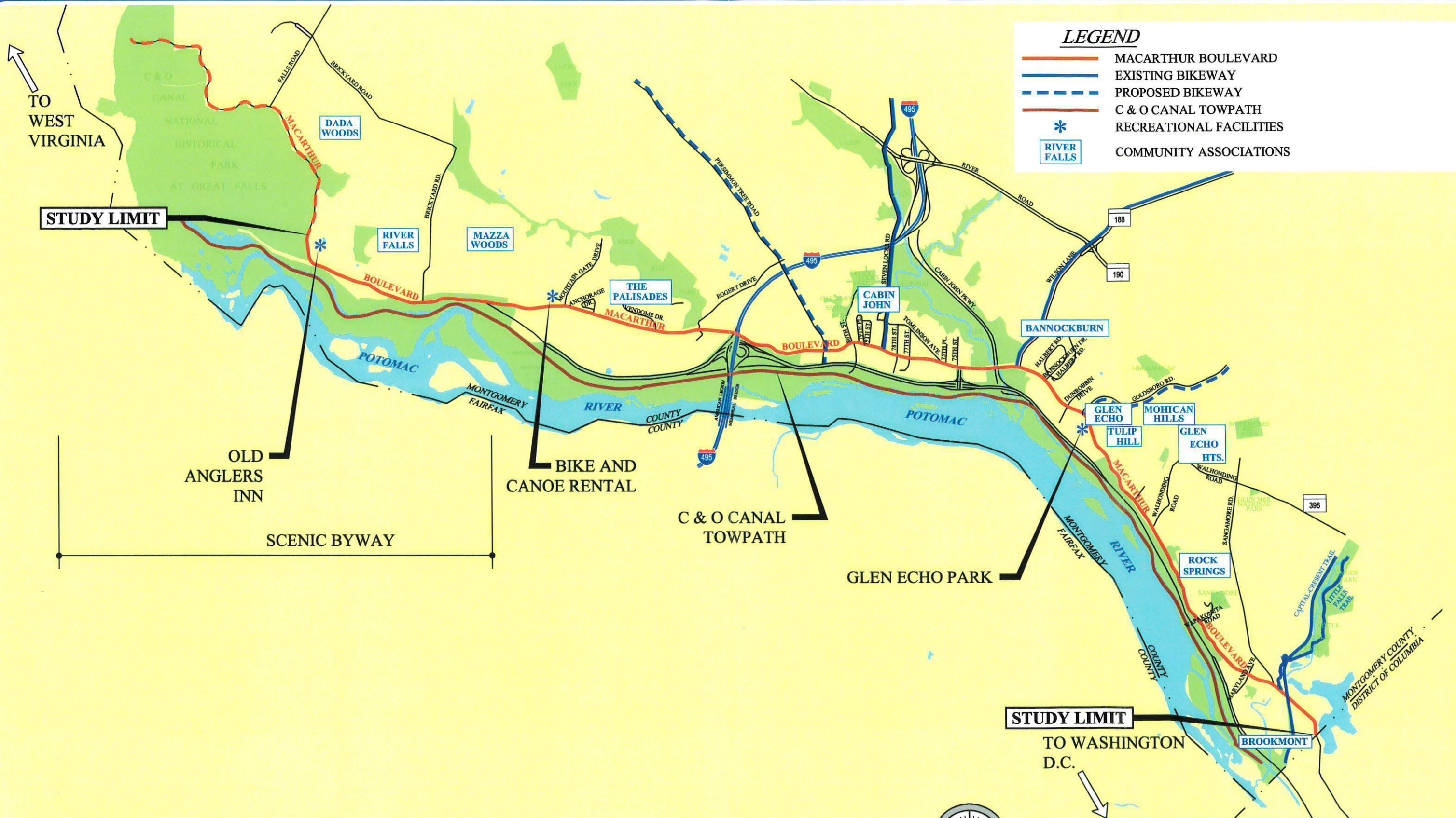


MACARTHUR BOULEVARD BIKEWAY STUDY
DRAFT: WORK-IN-PROGRESS



BIKE/PEDESTRIAN ACCIDENTS 1995-2001

| | | |
|-----------------------|--|------------------------|
| DATE: OCTOBER 2003 | URS Engineers/Architects/Planners/Surveyors 4 NORTH PARK DRIVE, SUITE 300 HUNT VALLEY, MARYLAND 21030 TELEPHONE: 410-785-7220 | FIGURE: I-13 |
| SCALE: 1" = 3000' | | |



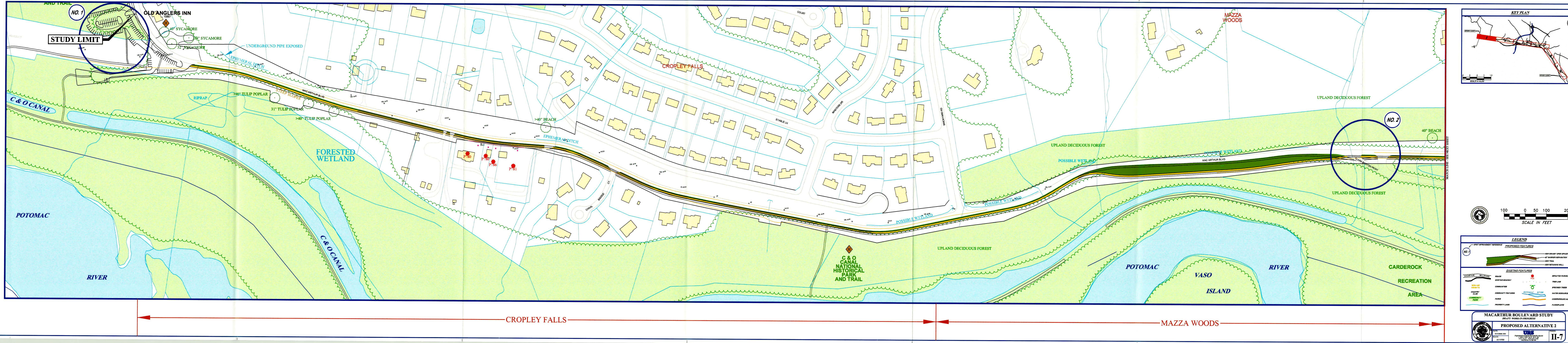
MACARTHUR BOULEVARD BIKEWAY STUDY
DRAFT: WORK-IN-PROGRESS

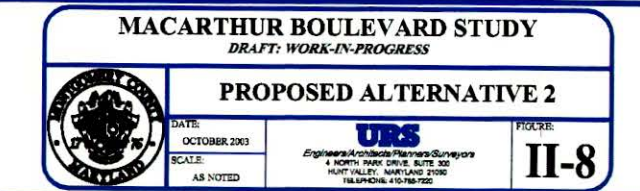
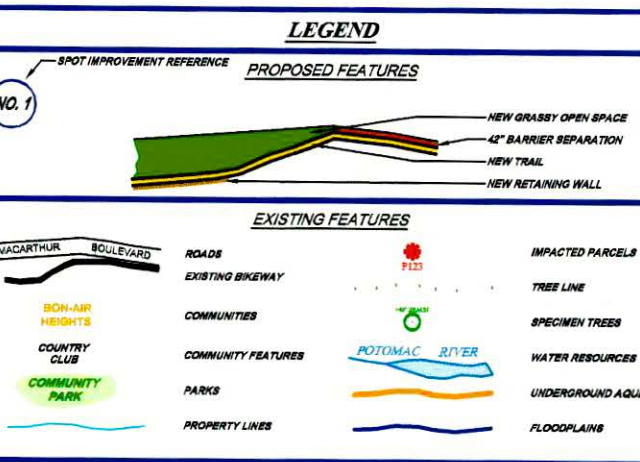
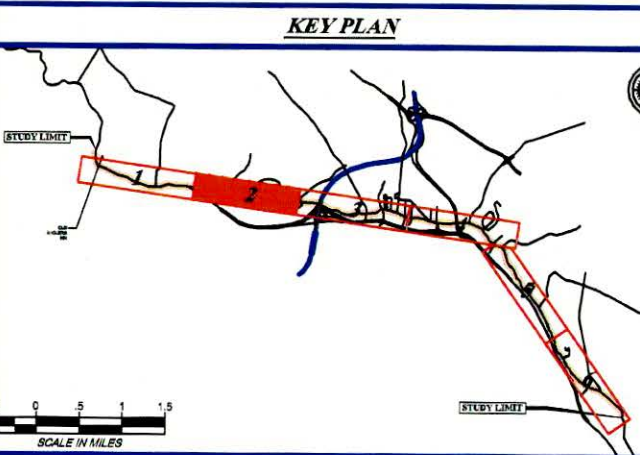
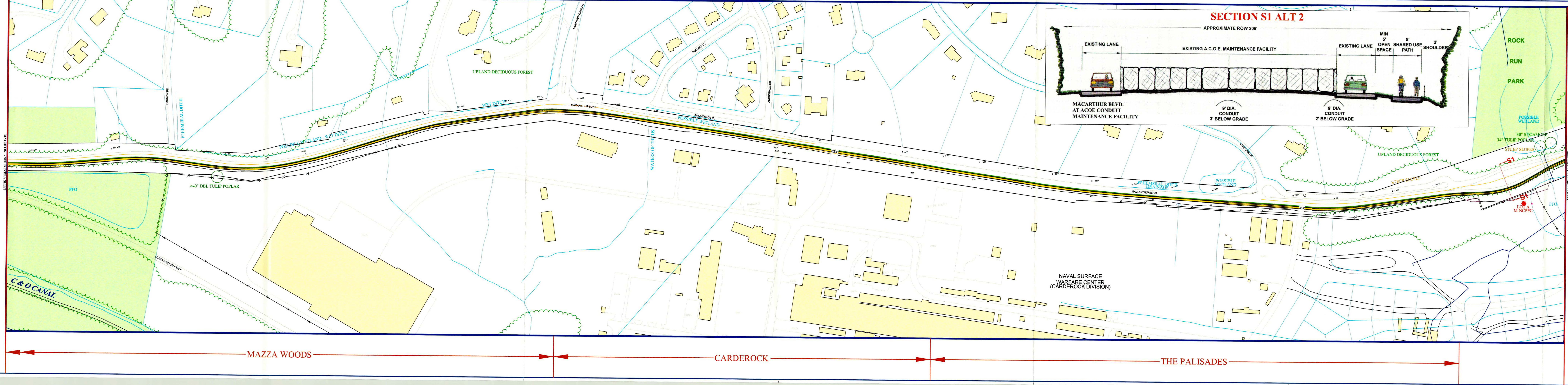
MACARTHUR BOULEVARD AREA BIKEWAY CONNECTIONS

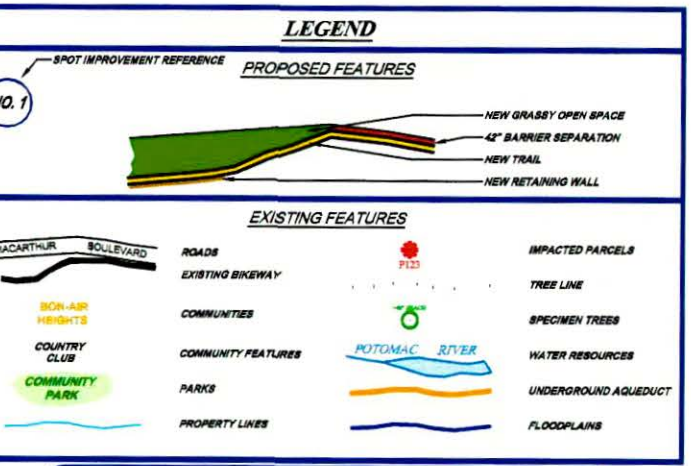
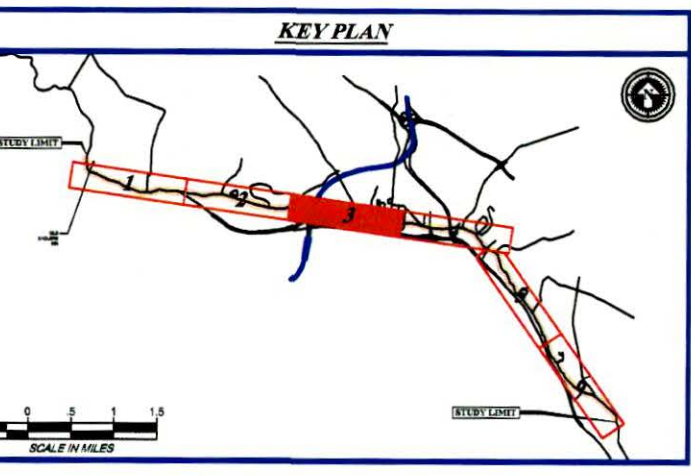
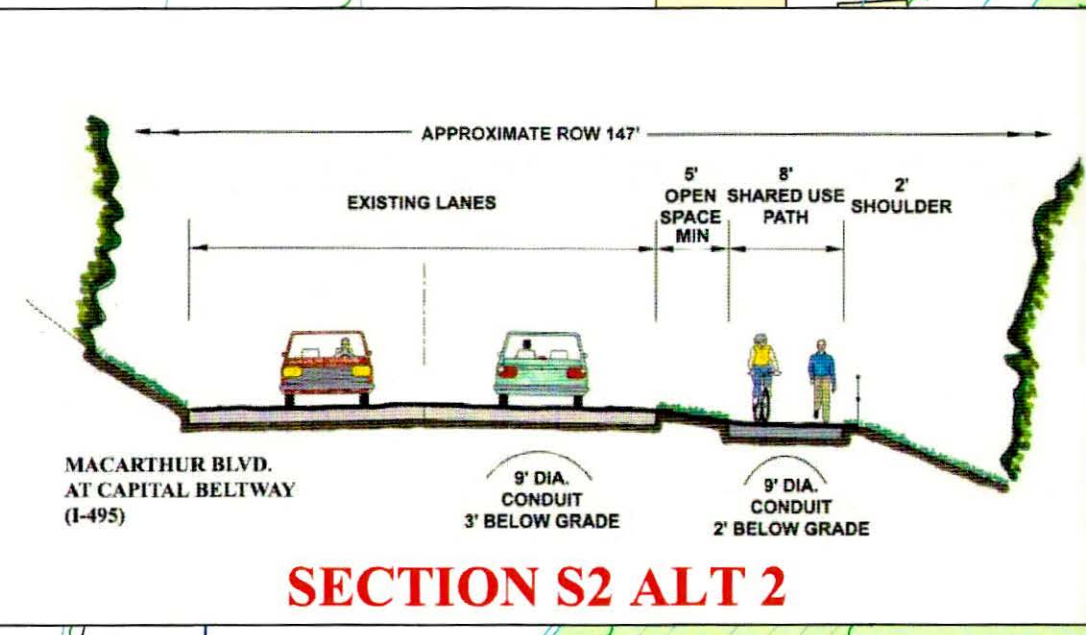
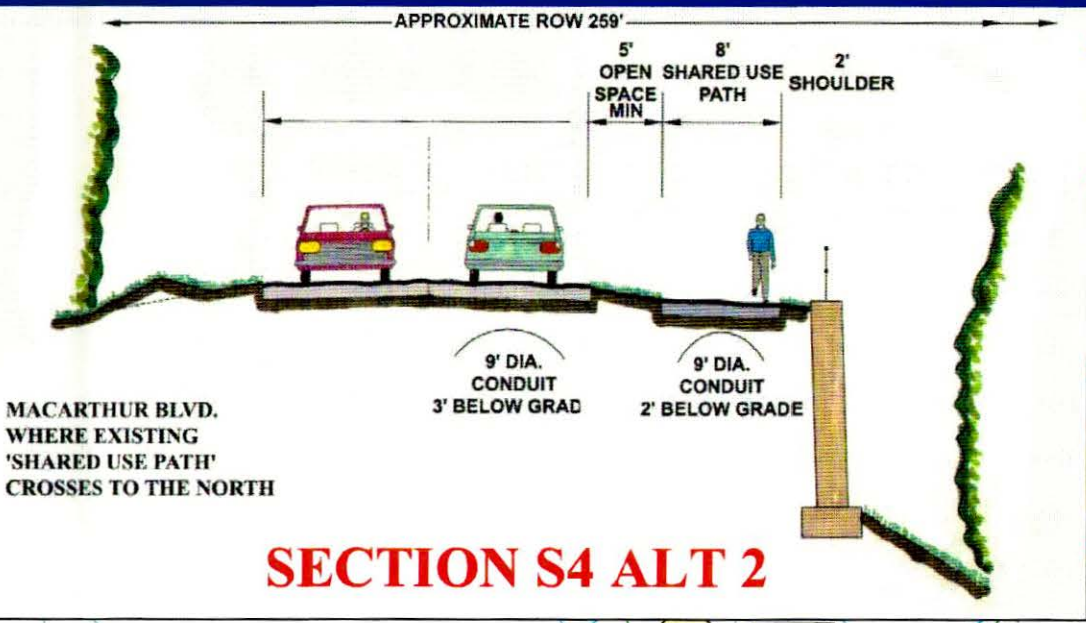
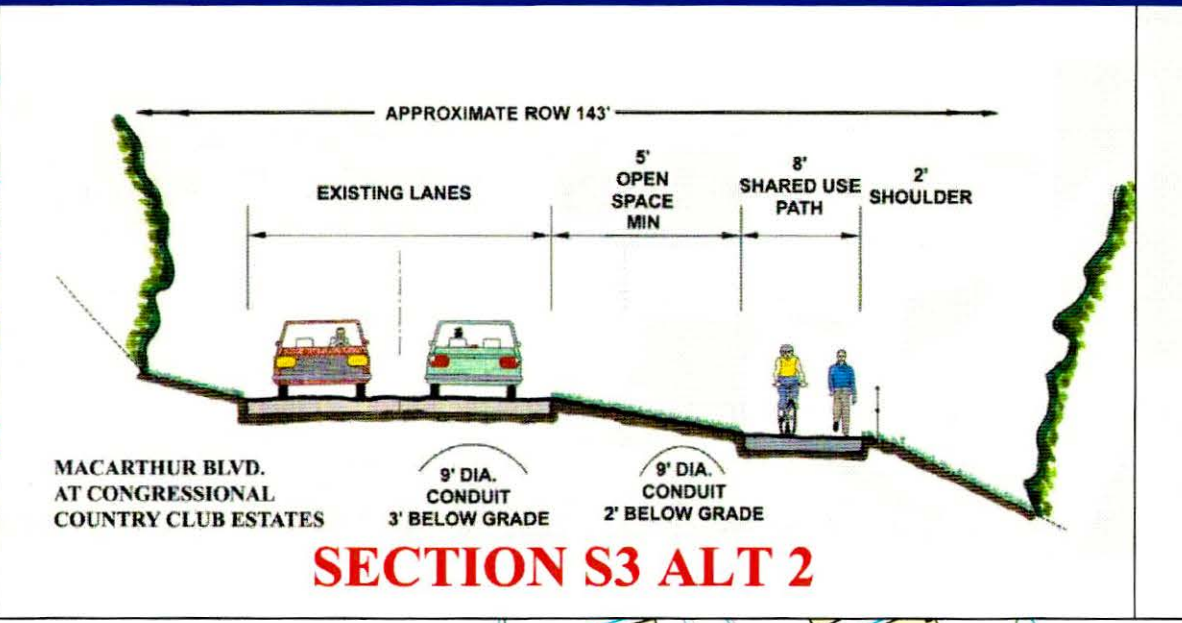
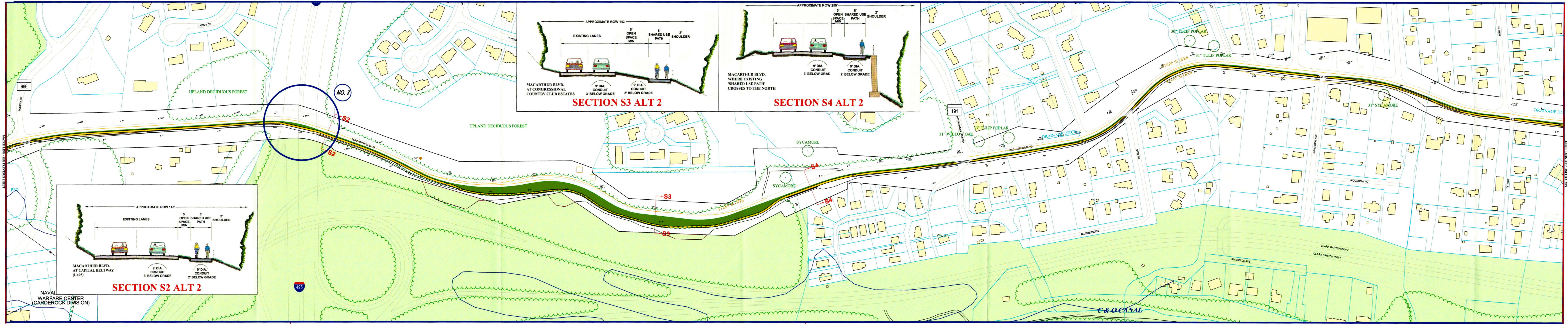
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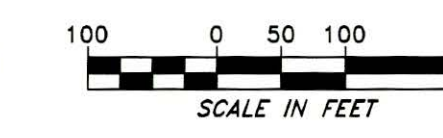
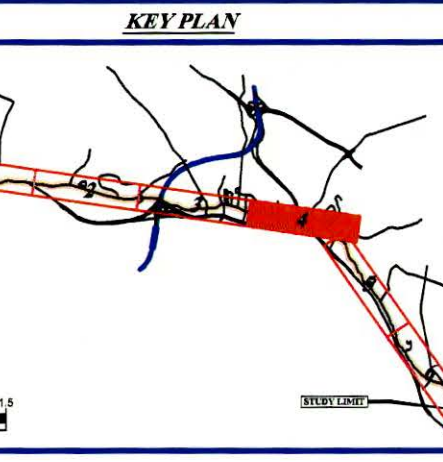
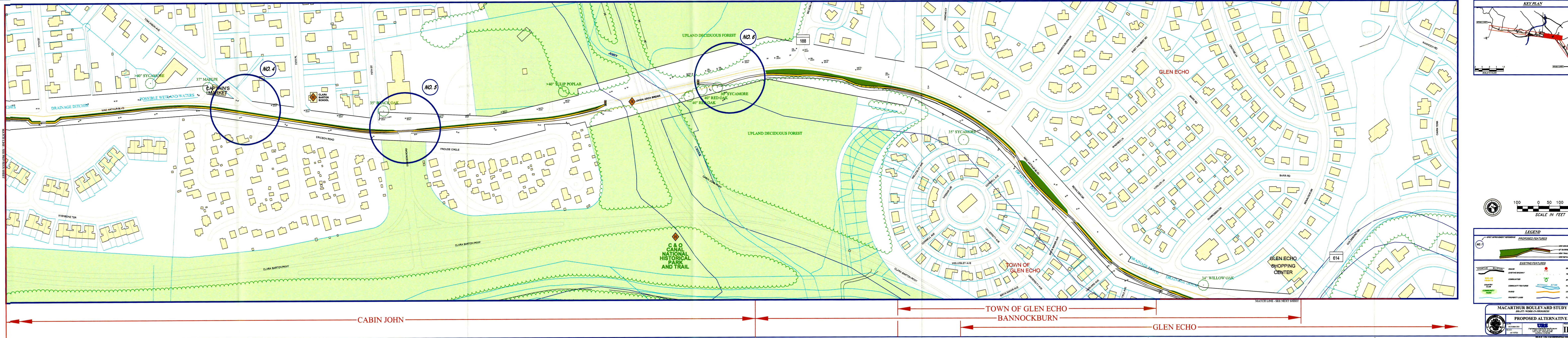
URS
Engineers/Architects/Planners/Surveyors
4 NORTH PARK DRIVE, SUITE 300
HUNT VALLEY, MARYLAND 21030
TELEPHONE: 410-785-7220

FIGURE: **I-14**









LEGEND

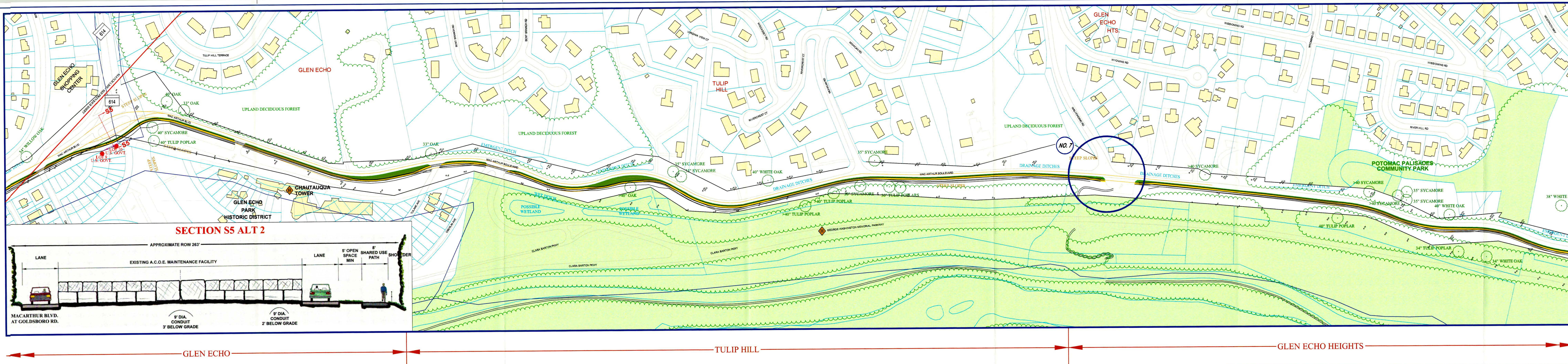
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|----------------------------|-----------------------|-------------------|----------------------|
| SPOT IMPROVEMENT REFERENCE | NEW GRASSY OPEN SPACE | ROADS | IMPACTED PARCELS |
| NO. 1 | 4" BARRIER SEPARATION | EXISTING BIKWAY | TREE LINE |
| | NEW TRAIL | COMMUNITIES | SPECIES TREES |
| | NEW RETAINING WALL | COUNTRY CLUB | WATER RESOURCES |
| | | PARKS | UNDERGROUND AQUEDUCT |
| | | PROPERTY LINES | FLOODPLAINS |

MACARTHUR BOULEVARD STUDY
DRAFT: WORK-IN-PROGRESS

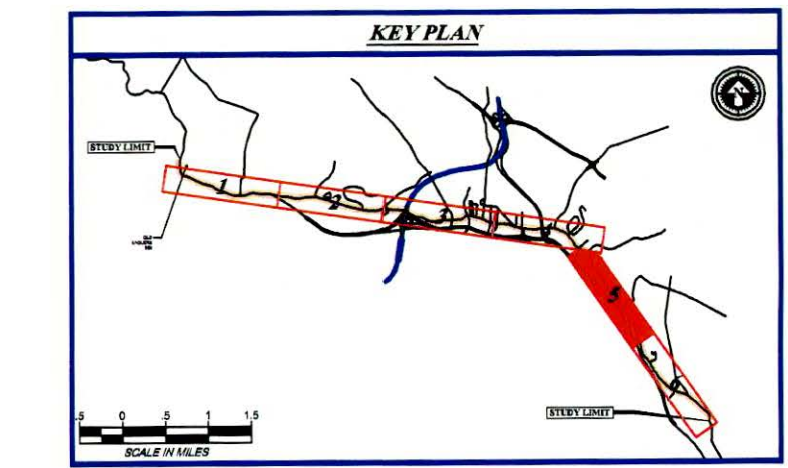
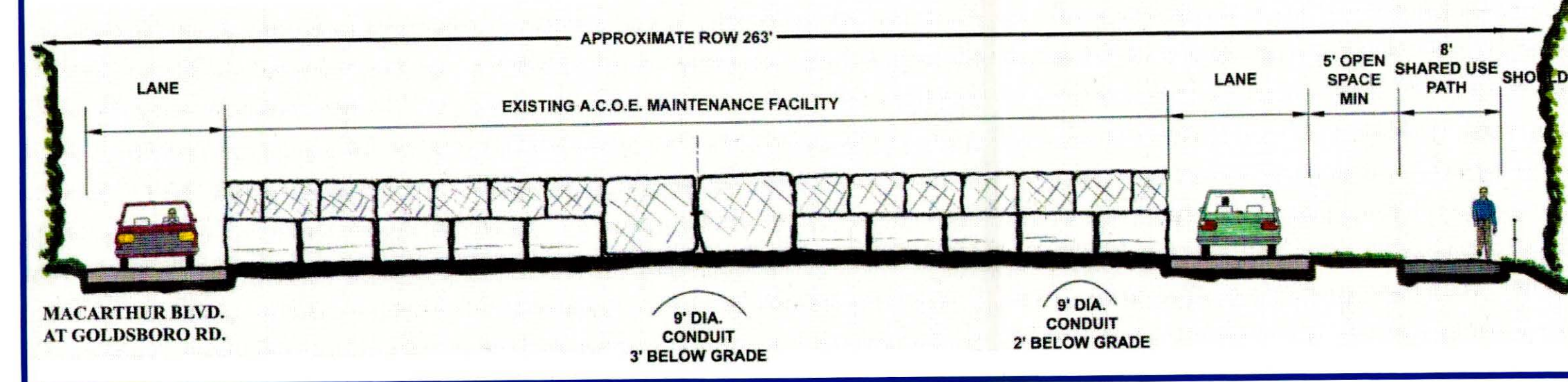
PROPOSED ALTERNATIVE 2

DATE: OCTOBER 2003
SCALE: AS SHOWN

PROJECT: II-10



SECTION S5 ALT 2



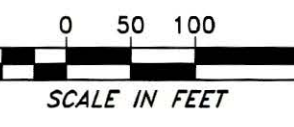
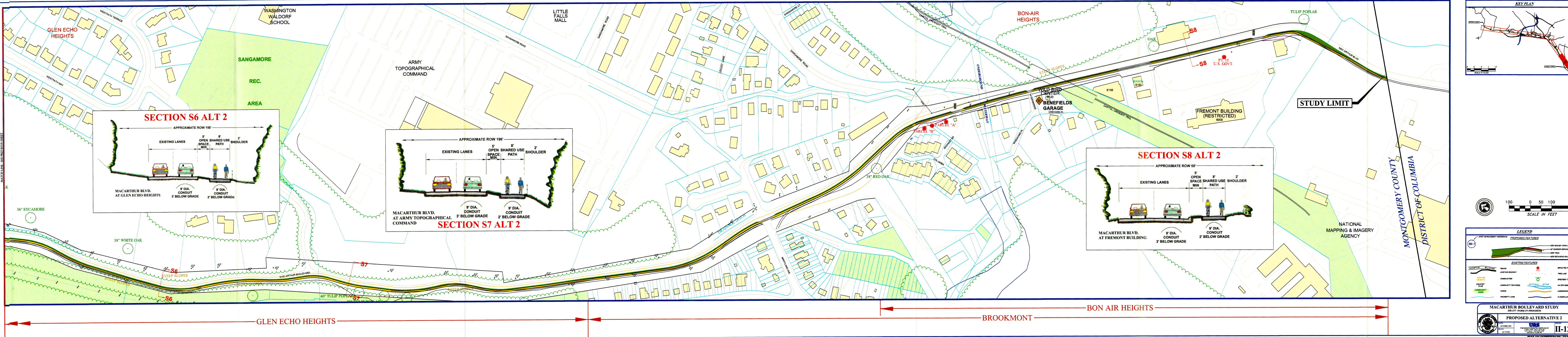
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|--------|------------------------|
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| | 42' BARRIER SEPARATION |
| | NEW TRAIL |
| | NEW RETAINING WALL |
| | EXISTING FEATURES |
| | MACARTHUR BOULEVARD |
| | ROADWAY |
| | EXISTING RIGHTWAY |
| | COMMUNITY |
| | COMMUNITY FEATURES |
| | POTOMAC RIVER |
| | WATER RESOURCES |
| | PAVED AREA |
| | UNDERGROUND AQUEDUCT |
| | FLOODPLAIN |
| | IMPACTED PARCEL |
| | TREE LINE |
| | SPECIMEN TREE |

MACARTHUR BOULEVARD STUDY
DRAFT: WORK-IN-PROGRESS

PROPOSED ALTERNATIVE 2

DATE: OCTOBER 2013
SCALE: AS SHOWN

PROJECT: II-11



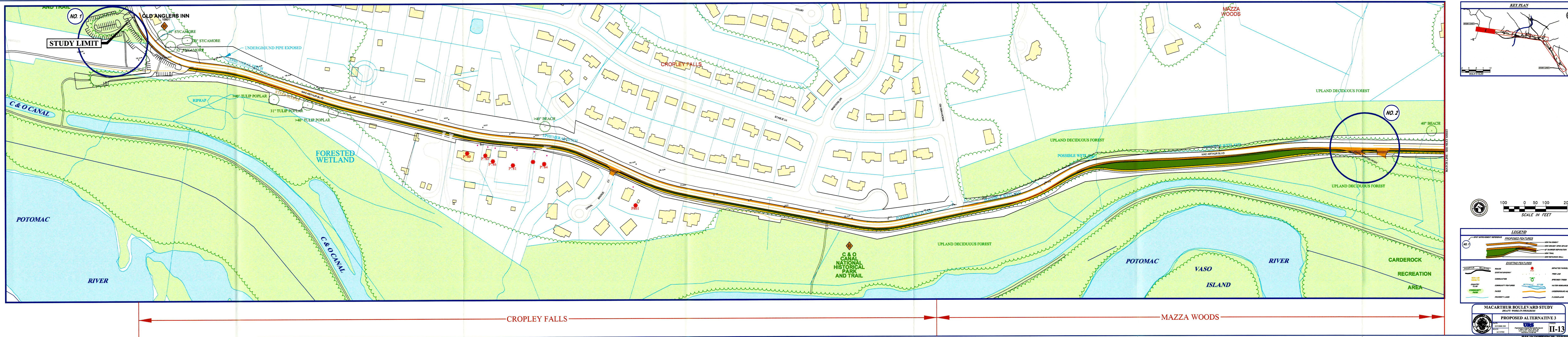
| LEGEND | |
|----------------------------|----------------------------|
| SPOT IMPROVEMENT REFERENCE | PROPOSED FEATURES |
| (NO. 1) | NEW GRASSY OPEN SPACE |
| | NEW 48" BARRIER REPAIRMENT |
| | NEW TRAIL |
| | NEW RETAINING WALL |
| EXISTING FEATURES | |
| MACARTHUR BOULEVARD | ROADS |
| EXISTING DRIVEWAY | COMMUNITIES |
| COUNTRY CLUB | PROPERTY FEATURES |
| COMMUNITY PARK | PARKS |
| | PROPERTY LINES |
| | IMPACTED PARCELS |
| | SPECIES TREES |
| | WATER RESOURCES |
| | UNDERGROUND AQUEDUCT |
| | FLOODPLAINS |

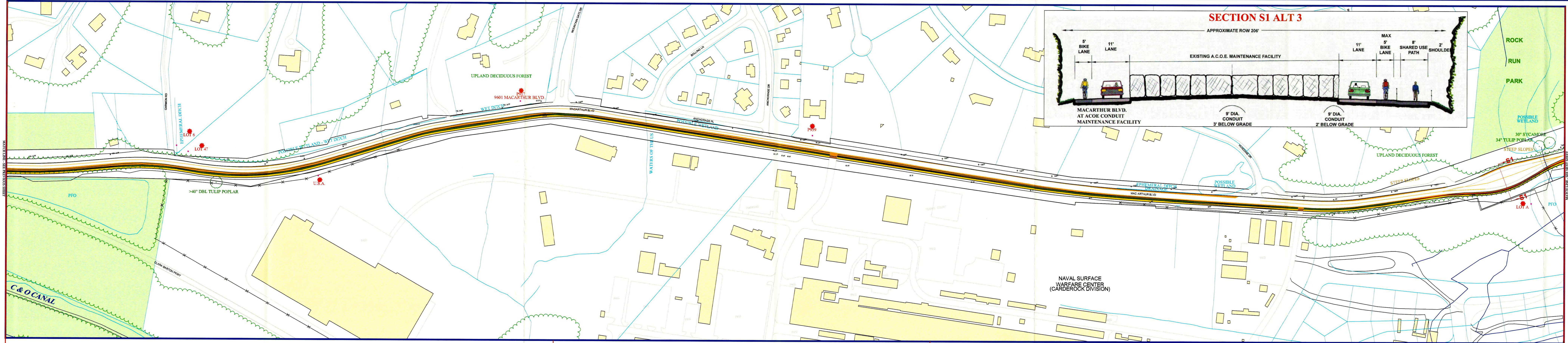
MACARTHUR BOULEVARD STUDY
DRAFT: WORK-IN-PROGRESS

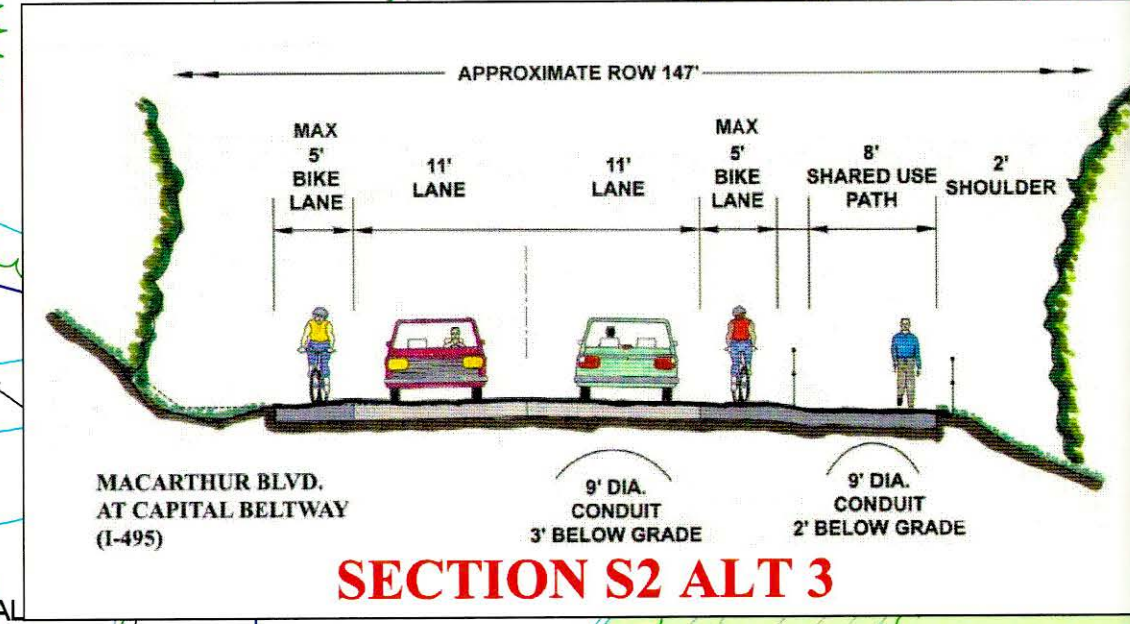
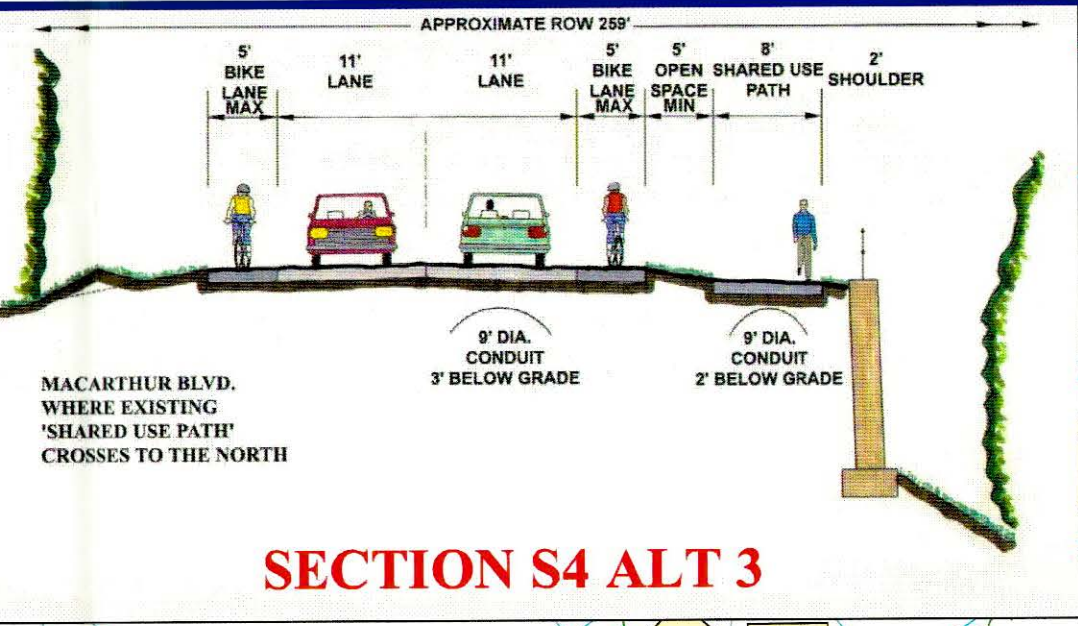
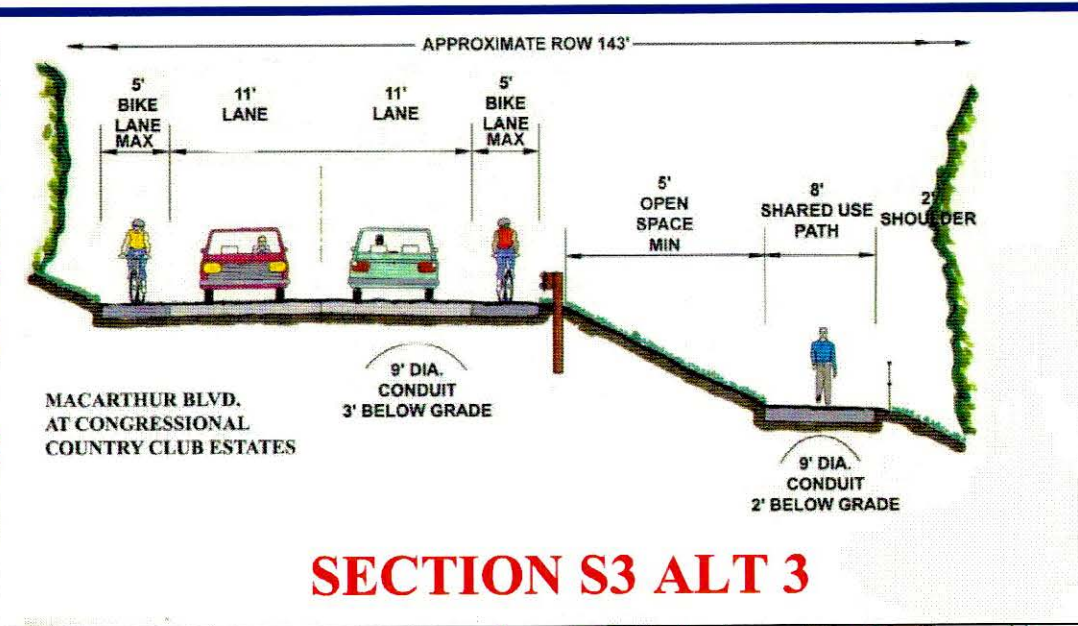
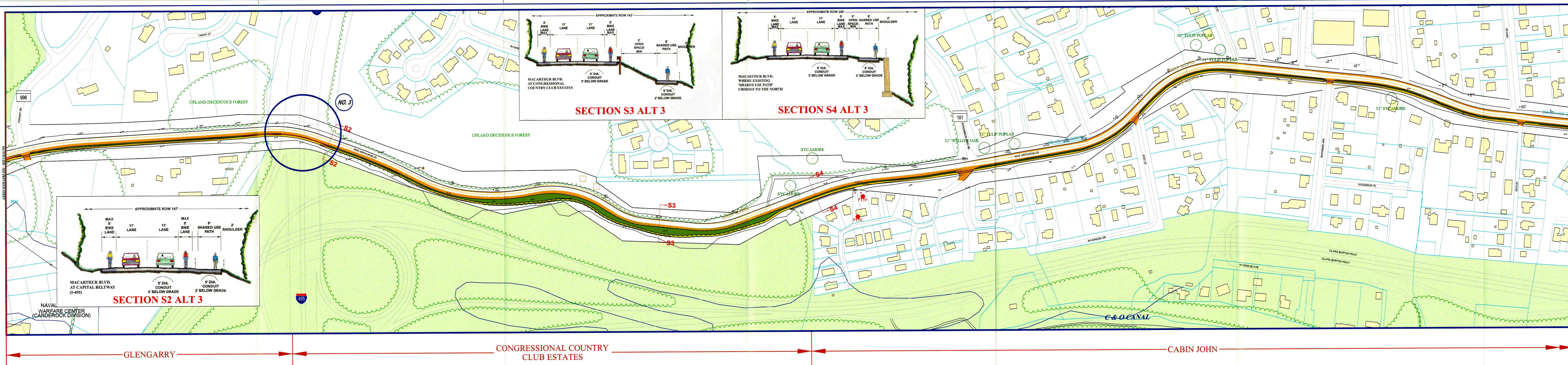
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DATE: OCTOBER 2011
SCALE: AS SHOWN

PROJECT: II-12







KEY PLAN

SCALE IN FEET

100 0 50 100 200

SCALE IN FEET

LEGEND

PROPOSED FEATURES

- NEW PAVEMENT
- NEW GRASSY OPEN SPACE
- 42" BARRIER SEPARATION
- NEW TRAIL
- NEW RETAINING WALL

EXISTING FEATURES

- MACARTHUR BOULEVARD
- ROADS
- EXISTING BIWAY
- COMMUNITIES
- COUNTRY CLUB
- COMMUNITY PARK
- PROPERTY LINES
- IMPACTED PARCELS
- TREE LINE
- SPECIMEN TREES
- WATER RESOURCES
- UNDERGROUND ADJUNCT
- FLOODPLAIN

MACARTHUR BOULEVARD STUDY

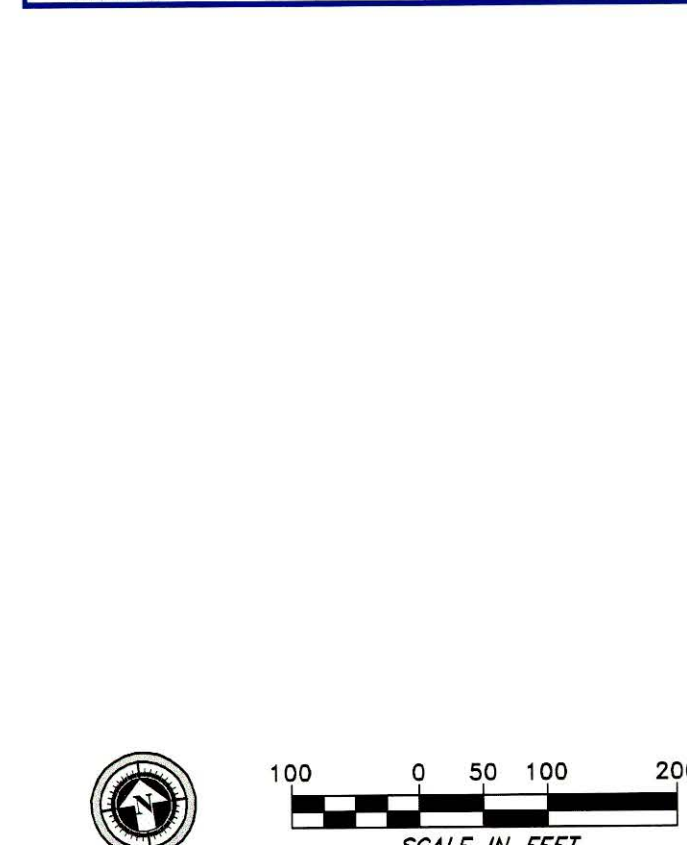
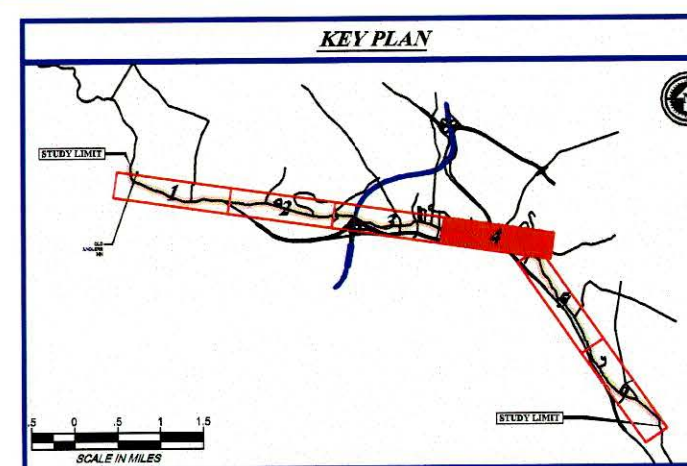
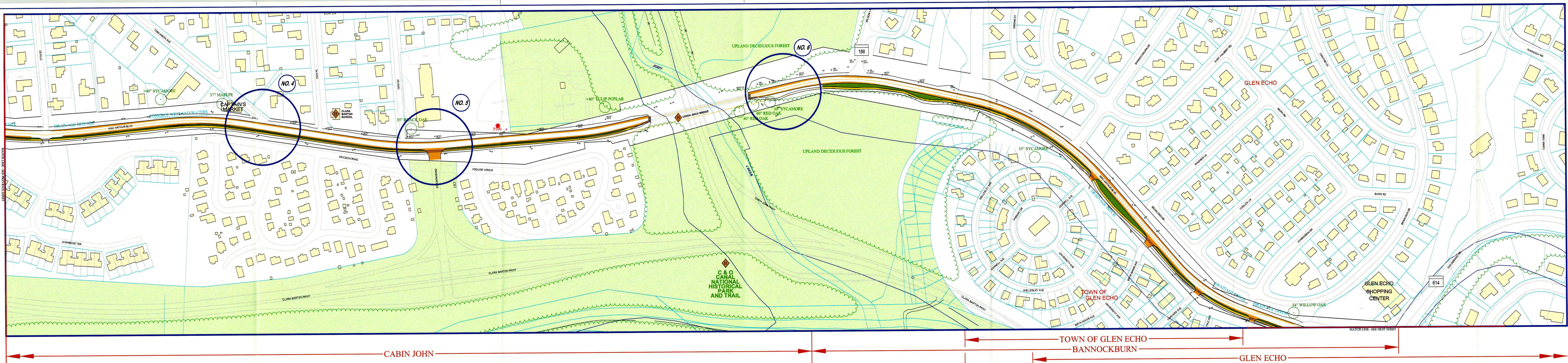
ALTERNATIVE 3

DATE: OCTOBER 2013

SCALE: AS NOTED

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PROJECT NO. II-15



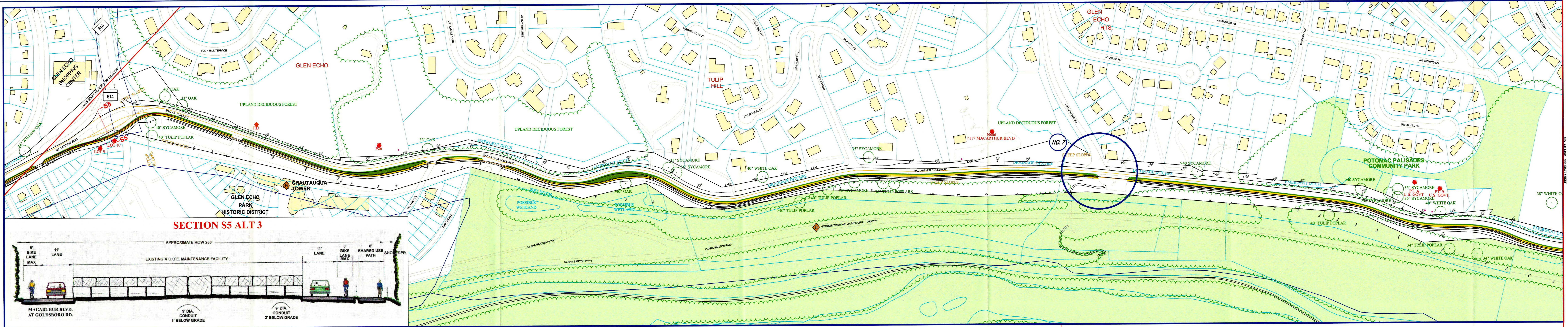
MACARTHUR BOULEVARD STUDY
 DRAFT: WORK-IN-PROGRESS

PROPOSED ALTERNATIVE 3

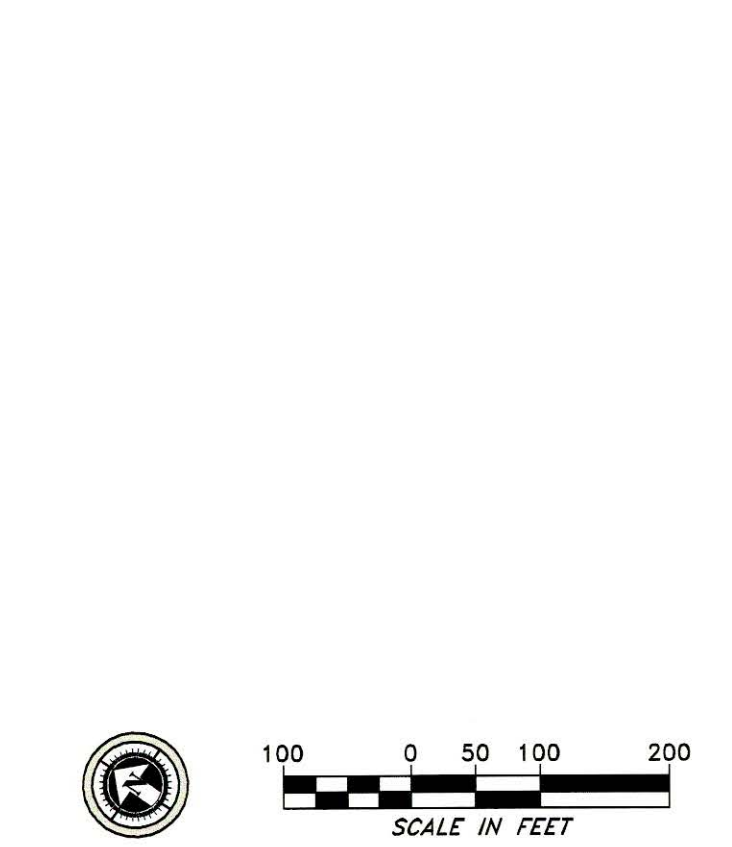
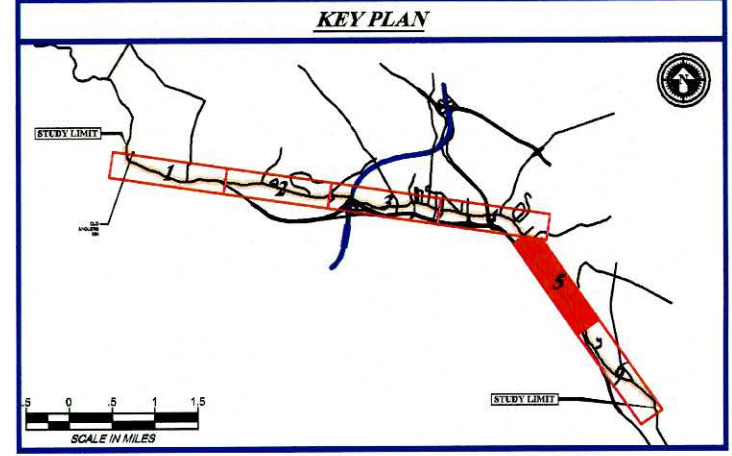
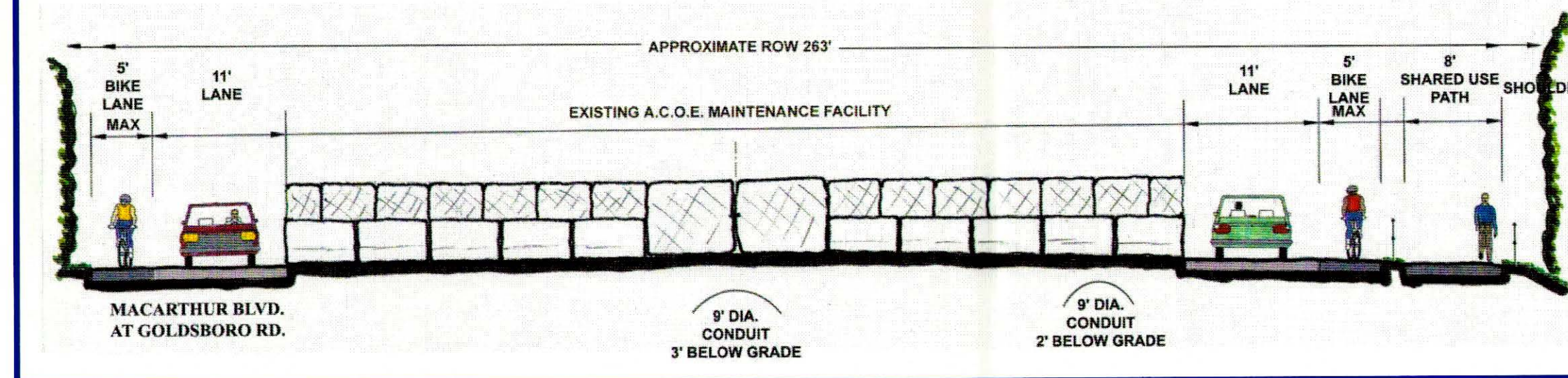
DATE: OCTOBER 2013
 SCALE: AS NOTED

URS
 ENGINEERING CONSULTANTS
 1000 WEST 10TH STREET
 SUITE 100
 MINNEAPOLIS, MN 55408

PROJECT: II-16



SECTION S5 ALT 3



MACARTHUR BOULEVARD STUDY
 DRAFT, WORK-IN-PROGRESS

PROPOSED ALTERNATIVE 3

DATE: OCTOBER 2011
 SCALE: AS NOTED

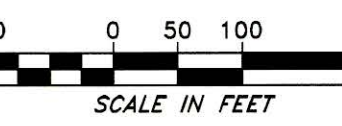
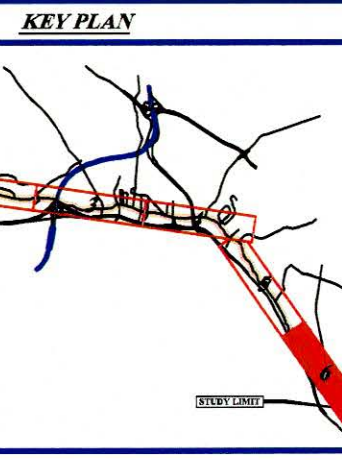
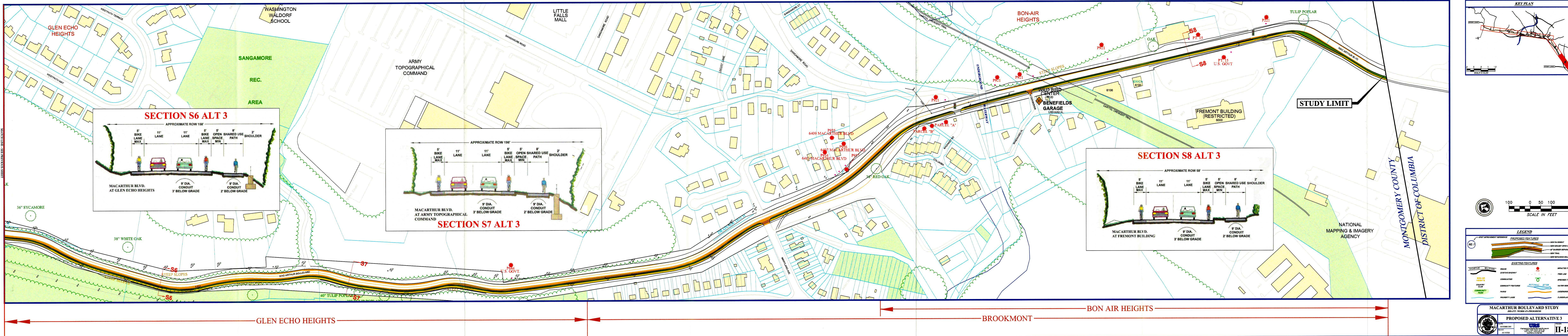
URS
 URS CORPORATION
 10000 WISCONSIN AVENUE
 SUITE 100
 FORT MYERS, FL 33907

II-17

GLEN ECHO

TULIP HILL

GLEN ECHO HEIGHTS



LEGEND

| PROPOSED FEATURES | |
|-----------------------|-----------------------|
| NEW PAVEMENT | NEW GRAVEL OPEN SPACE |
| NEW GRAVEL OPEN SPACE | NEW TRAIL |
| NEW TRAIL | NEW RETAINING WALL |
| EXISTING FEATURES | |
| MACARTHUR BOULEVARD | ROADS |
| EXISTING BIKEWAY | BIKEWAY |
| COMMUNITIES | COMMUNITY FEATURES |
| COUNTY CLUB | POTENTIAL RIVER |
| COMMUNITY PARK | PARKS |
| PROPERTY LINES | PROPERTY LINES |
| IMPACTED PARCELS | IMPACTED PARCELS |
| TREE LINE | TREE LINE |
| SPECIMEN TREES | SPECIMEN TREES |
| WATER RESOURCES | WATER RESOURCES |
| UNDERGROUND AQUEDUCT | UNDERGROUND AQUEDUCT |
| FLOODPLAIN | FLOODPLAIN |

MACARTHUR BOULEVARD STUDY
DRAFT: WORK-IN-PROGRESS

PROPOSED ALTERNATIVE 3

DATE: OCTOBER 2009
SCALE: AS NOTED

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

PI-18

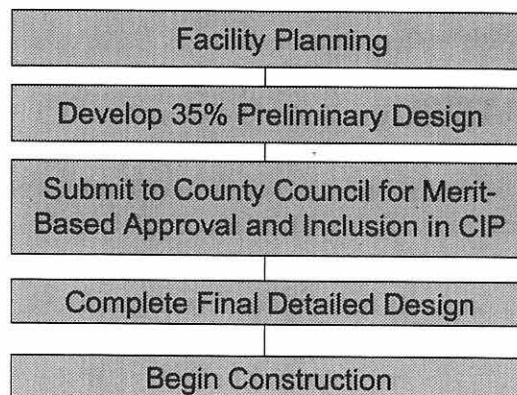
SECTION II

PRELIMINARY ENGINEERING STUDIES

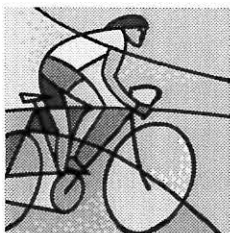
INTRODUCTION

A comprehensive, systematic approach has been used throughout the Phase I Transportation Facility Planning process to develop a set of reasonable alternatives for improvements to the bikeway along MacArthur Boulevard. The alternatives reflect the need to improve safety, develop a facility or facilities to be used by recreational and commuter bicyclists as well as pedestrians and improve the connectivity of the bikeway network in the Potomac Subregion and the Bethesda-Chevy Chase area. The refinements of alternatives included involvement of the Phase I Facility Planning Study Team, Community Associations, and the general public.

The DPWT has developed a systematic approach in its development of projects. This process is divided into two parts: the Transportation Facility Planning Process and Project Implementation. The Transportation Facility Planning Process is subdivided into two phases. The first phase includes an assessment of the need for the project and the conceptual elements of its implementation. The second phase involves the development of plans to the 35% design level. After the second phase, a recommendation is made to consider the project for inclusion in the Capital Improvement Program (CIP). A flow chart for the entire Project Development process is shown below.



Montgomery County Project Development Process



PRELIMINARY ENGINEERING STUDIES

The DPWT initiated a Phase I study to develop alternatives and recommendations for improvements to the existing bikeway along MacArthur Boulevard. The Goals and Objectives for Montgomery County were included in the Phase I Study of MacArthur Blvd as stated in the October 2002 Approved and Adopted Potomac Subregion Master Plan, the April 1990 Approved and Adopted Bethesda-Chevy Chase Master Plan and the June 1978 Approved and Adopted Master Plan of Bikeways.

The Study Team developed three alternatives to meet Purpose and Need of this Study. They were based on the recommendations of the Potomac Subregion and Bethesda-Chevy Chase Master Plans, while minimizing community, natural, and cultural resource impacts. As shown in Section I of this Prospectus, the Study Team found that the existing bikeway, which is designated as a shared use path, is substandard in many locations along MacArthur Boulevard. This contributes to the safety issues for bicyclists and pedestrians using the existing bikeway. The following three alternatives were presented to the public:

- Alternative 1: No-Build
- Alternative 2: Upgrade existing separated Shared Use Path (south side) to meet AASTHO guidelines.
- Alternative 3: Four-foot Bike Lanes (both sides) and Separated Shared Use Path (south side).

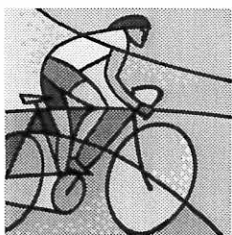
Based on the preliminary engineering studies described below, the Study Team has recommended that Alternative 2 and all spot improvements developed as part of this study be forwarded for further detailed engineering analysis. The Study Team believes that this alternative best meets the needs as well as the vision of the Master Plan for the Potomac Subregion and the Bethesda-Chevy Chase areas, and the established Purpose and Need Statement.

NO-BUILD ALTERNATIVE

Alternative 1, the No-Build alternative would include no improvements other than routine maintenance and attention to immediate safety concerns. This alternative would have no impact, yet would not address the needs of the project.

DEVELOPMENT OF BUILD ALTERNATIVES

The Study Team considered various scenarios in the development of alternatives for the MacArthur Boulevard Bikeway. To begin, the Study Team reviewed the history of the roadway and bikeway, the Washington Aqueduct, the Potomac Subregion and Bethesda-Chevy Chase Master Plans, the Montgomery County Bikeway Master Plan, and the Citizens Association's desires to develop alternatives that would meet the purpose and need of the project. Initially, three build alternatives were considered: small scale spot improvements, upgrading the existing shared use path, and adding bike lanes



PRELIMINARY ENGINEERING STUDIES

on both sides of MacArthur Boulevard while eliminating the shared use path. Subsequent discussions with the Study Team about the safety and operational needs of the bikeway users resulted in the development of a premium bikeway concept that could accommodate commuter and recreational bicyclists as well as other recreational trail users. This section combined bikes lanes with an upgraded shared use path.

During the discussion of bike lanes, the Study Team considered incorporating narrower bike lanes to potentially minimize impacts, but determined that based on the accuracy of planning level mapping available, the property savings would not be accurately assessed and it was likely that five-foot bike lanes could fit within the right-of way and illustrate the range of impacts anticipated. Therefore, the Study Team developed a cross section with five-foot bike lanes, which are desirable, recognizing that the width of the bike lanes could be reduced during the design phase, if needed to reduce impacts, when more accurate survey information was available. Based on subsequent discussions with the Study Team and after reviewing the potential impacts, it was determined that four-foot bike lanes along the open section of the roadway and five-foot bike lanes along the closed section of the roadway would be more appropriate.

Next, the Study Team collaboratively developed a series of spot improvements to address the ancillary needs of the project such as illegal parking, tie-in to parking lots, and intersection conflicts. It was recognized that these spot improvements were needed regardless of which alternative was selected. Therefore, the spot improvements were incorporated into the two build alternatives. Ultimately, the two build alternatives were developed as follows:

- Alternative 2: An upgraded separated shared use path on the south side to meet AASTHO guidelines with a five-foot minimum separation between the roadway where possible and physical barriers where a five-foot open space cannot be accommodated
- Alternative 3: Addition of bike lanes on both sides and an upgraded separated shared use path on the south side with a five-foot minimum separation between the roadway where possible and physical barriers where a five-foot open space cannot be accommodated.

The development of the alternatives was focused toward minimizing impacts, improving safety, and enhancing connectivity to other bikeways and trails along the corridor. The Study Team recommends that the selected alternative also include appropriate traffic control for the bikeway, including signing, pavement markings, lane designations, vehicular and bikeway approach, and caution signs. The surface of the existing shared use path should be patched where necessary to eliminate ponding of water, debris, gravel and obstructions in the path, which contribute to unsafe riding conditions.



PRELIMINARY ENGINEERING STUDIES

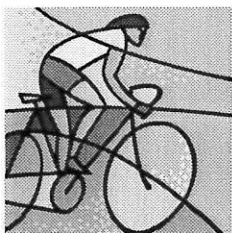
As part of the development of the build alternatives, the Study Team developed six options for the open space between the paved travel lane/bike lane and the shared use path to minimize maintenance while providing an aesthetic improvement for the Study Area. The treatment options, which could be applied to either alternative, would also help to maintain the character and visual effect of the corridor. They include:

- Open Section, Graded Swale with Infiltration Trench
- Open Section, Graded Berm with Infiltration Trench
- Open Section, Grass Pavers
- Closed Section, 24" Monolithic Curb with Infiltration Trench
- Closed Section, 8" Curb Graded Swale with Infiltration Trench
- Closed Section, 8" Curb with Graded Slope and Infiltration Trench.

The identification of a preferred open space treatment will be forwarded to Phase II Facility Planning, when the appropriate open space treatment can be determined based on additional survey information and specific site conditions. Also, during the design phase, coordination between Montgomery County Division of Maintenance, Division of Traffic and Parking, and Division of Capital Development should be maintained to ensure the appropriate open space treatment meets the goals of the study. The open space treatment options are illustrated at the end of this section in **Figures II-1 through II-6**.

ALTERNATIVE 2: SEPARATED SHARED USE PATH

This alternative was developed to upgrade the existing bikeway to current AASHTO standards for an eight-foot wide shared use path, including a five-foot minimum separation between the shared use path and edge of roadway. The concept shown in **Figures II-7 through II-12** at the end of this section was developed based on the existing roadway and bikeway alignments using the GIS data provided by Montgomery County. In this alternative, the alignment of the existing shared use path was modified where needed to create a minimum five-foot open space separation between the edge of roadway and the bike path. Where the existing shared use path alignment provided an open space wider than five-feet, the alignment was not changed. Based on the base mapping, a consistent minimum five-foot open space can be maintained throughout the study area, eliminating the need to install a physical barrier between the roadway and shared use path. The alignment of the shared use path required one retaining wall (150 feet long) where the crossing of MacArthur Boulevard from the south to the north side was eliminated (Station 2173+00 to 2174+50). The shared use path was realigned to the south side of MacArthur



PRELIMINARY ENGINEERING STUDIES

Boulevard at this location, thereby eliminating the cross over entirely. The alignment of this alternative ties into the Union Arch Bridge and no impacts to the bridge are expected. There are several locations where the existing alignment of the bikeway can remain, as it is today with the exception of overlaying the existing asphalt if desired. These sections include between the District line and the Fremont building, between Maryland Avenue and Wapakoneta Road, east of Oberlin Avenue, west of Tulane Avenue, between Brynmawr Avenue and Cornell Avenue, west of Braeburn Parkway, between the Union Arch Bridge and Persimmon Tree Road, west of Persimmon Tree Road, between Vendome Drive and Bolling Lane, West of Mountain Gate Road and west of the Clara Barton Parkway.

The overall effect of implementing this alternative would include improving safety for users, providing consistent separation between motor vehicles and recreational bicyclists and pedestrians, and maintaining the overall character and visual effect of the corridor.

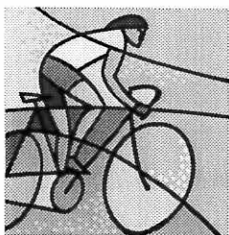
In addition to providing safety benefits, this alternative improves the connectivity of the MacArthur Boulevard Bikeway to the existing connections from MacArthur Boulevard to the Chesapeake and Ohio Canal National Historical Park Canal Towpath and the Capital Crescent Trail. These connections are part of the proposed spot improvements described later in this section.

In summary, the benefits associated with this alternative include:

- Improving safety and accessibility for bicyclists and pedestrians
- Improving the connectivity of the bikeway network in the Potomac Subregion and the Bethesda-Chevy Chase area.

ALTERNATIVE 3: BIKE LANES ON BOTH SIDES AND AN UPGRADED SEPARATED SHARED USE PATH ON THE SOUTH SIDE

As noted previously, this alternative was developed with bike lanes on both sides of MacArthur Boulevard and upgrades to the shared use path to meet AASHTO guidelines. To address anticipated significant impacts to the north side of MacArthur Boulevard where there are numerous utility poles and drainage ditches, the Study Team, including the ACOE, determined that it was acceptable to shift the center line of MacArthur Boulevard to the south by three to five feet, where needed, which would not impact the conduits. However, shifting the centerline to the south would require filling in steep slopes, so a balanced approach was taken. For example, some areas of MacArthur Boulevard are constrained by environmental features and a narrow right-of-way, such as at Eggert Drive and Goldboro Road, where the two ACOE conduit maintenance facilities are located adjacent to steep slopes. The concept shown in **Figures II-13 through II-18** were developed to match the existing roadway and bikeway alignment as much as possible, using the GIS data provided by Montgomery County.



PRELIMINARY ENGINEERING STUDIES

In addition, the alignment of this alternative ties into the Union Arch Bridge and no impacts to the bridge are required. However, due to the shifts in the horizontal alignment, three retaining walls are required on the south side of MacArthur Boulevard. A total of approximately 1,600 linear feet of retaining wall would be needed at the following locations:

- Station 147+50 to 155+50, near the Topographical Command Property
- Station 160+50 to 164+50, near the Sangamore Recreation Area
- Station 332+50 to 335+50, where the existing bikeway crosses MacArthur Boulevard from the south side to the north side.

The shared use path alignment was modified where needed to provide a minimum five-foot separation between the edge of the bike lane and the shared use path. There are four areas where the distance between the roadway and the shared could not accommodate the open space, and a 42-inch high barrier will be needed. The required length of physical barrier would be approximately 2,180 feet. The locations of the physical barrier are as follows:

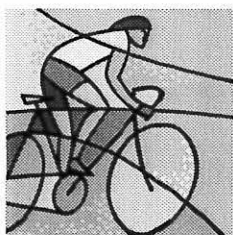
- Station 233+00 to 238+00, Goldsboro Road and Eggert Drive where the ACOE maintenance facility is located in the intersection of Goldsboro and MacArthur Boulevard
- Station 356+00 to 360+00, under the Capital Beltway (I-495) overpass
- Station 369+50 to 477+00, Eggert Drive where the ACOE maintenance facility is located in between the eastbound and westbound travel lanes of MacArthur Boulevard
- Station 491+00 to 458+50, just east of the Old Anglers Inn.

SPOT IMPROVEMENTS

Spot improvements were developed to address many of the issues communicated by the public as well as identified during a project tour conducted by the Study Team. A total of 10 spot improvements were developed and are described and illustrated in the following sections. In addition, the locations of the spot improvements are identified in **Figures II-7 through II-18**.

No. 1 MacArthur Boulevard at Old Anglers Inn

The existing bikeway terminates abruptly to a shared roadway at this location. The existing National Park Service (NPS) parking lot across from the Old Anglers Inn currently lacks the capacity to handle the volume of Park and bikeway users on the weekend, causing them to park on the MacArthur Boulevard bikeway. The NPS is currently redesigning this parking lot. However, the NPS parking lot



PRELIMINARY ENGINEERING STUDIES

reconfiguration will not increase parking capacity. The proposed improvement for the MacArthur Boulevard Bikeway is to coordinate with the NPS to terminate the shared use path at the parking lot while providing a smooth and safe transition from the shared use path to the parking lot (see **Figure II-19**). The bike lanes would transition at the parking lot to on-road travel for bicyclists. Appropriate signing for the shared use path, bike lanes, and "no parking" along MacArthur Boulevard would be installed. Unfortunately, illegal parking on the bikeway transcends DPWT's ability to provide additional parking capacity and will likely remain an ongoing issue.

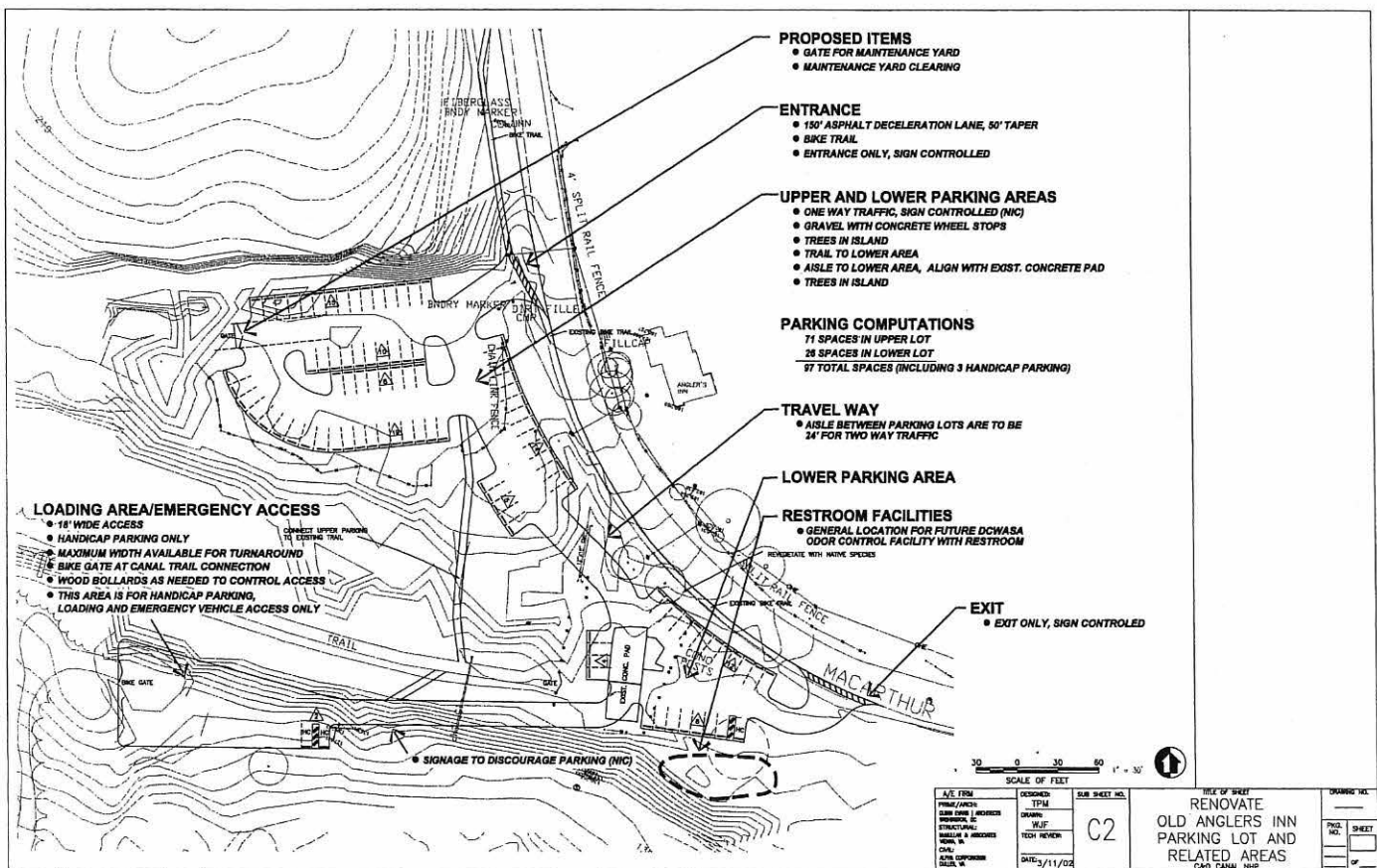
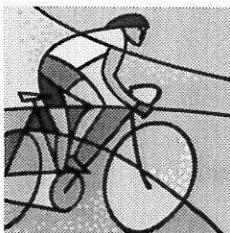


Figure II-19 Conceptual Plan of NPS Parking Lot at Old Anglers Inn

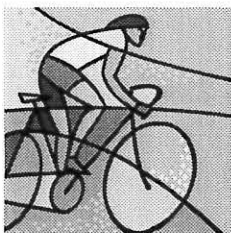


No. 2 MacArthur Boulevard at Clara Barton Parkway

At this location, the stop signs are obscured by other signs and motorists unfamiliar with the intersection do not see the stop signs until they enter the intersection, causing them to improperly pass through the 3-way stop. There is no separation between the existing shared use path and the roadway. Motorists currently use the paved bikeway as an additional traffic lane. Flex posts have been installed, but the width of the paved area encourages vehicular access (see **Figure II-20**). The recommended alternative will reduce the width of paved area to discourage vehicles using the shared use path as a travel lane. The proposed spot improvement includes adding roadway markings warning vehicles of the approaching 3-way stop and adding signage on Clara Barton Parkway warning motorists of the MacArthur Boulevard bikeway. Reducing the turning radius of the eastbound right turn onto Clara Barton Parkway will help slow traffic entering the intersection.



Figure II-20: MacArthur Boulevard at Clara Barton Parkway Looking Eastbound



No. 3 MacArthur Boulevard and I-495 Capital Beltway

Currently the underpass is not lighted, creating a dark stretch of roadway and bikeway. The natural lighting levels under the I-495 overpass are not adequate due to the width of the Capital Beltway above (see **Figure II-21**). The proposed improvement is the addition of appropriate electrical lighting under the bridge to increase visibility, safety, and comfort of bicyclists and pedestrians.

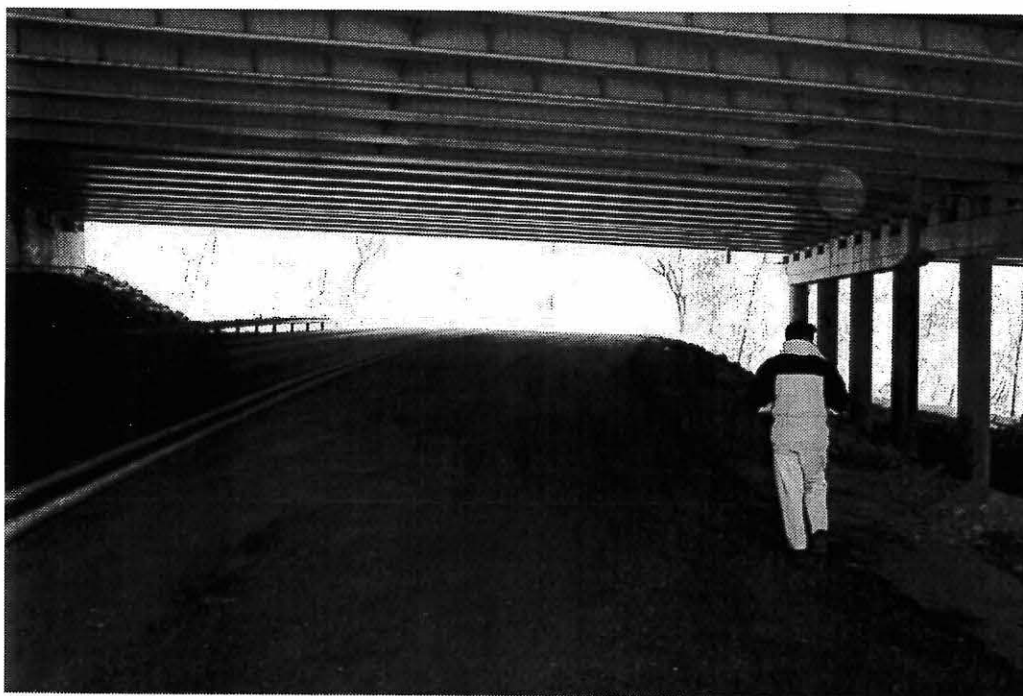


Figure 21: Macarthur Boulevard at I-495 Capital Beltway Looking East

No. 4 MacArthur Boulevard at Tomlinson Avenue

During the lunch hours of 11:30 am to 1:30 pm, the parking lot at Captain's Market overflows onto the existing bikeway. The width of the paved shared use path at this location provides ample room for trucks and delivery vehicles to park even though the shared use path in this area is signed as "no parking." The acute angle at which Tomlinson Avenue intersects with MacArthur Boulevard makes it difficult for large trucks and delivery vehicles to turn left onto Tomlinson Avenue in order to enter the Captain's Market parking lot from that entrance (see **Figure II-22**). Alternatives 2 and 3 reduce the current width of the paved bikeway, but will not solve the lack of parking lot capacity at Captain's Market. The proposed spot improvement, which would only be associated with Alternative 3, is to reconfigure parking lot in front of Captain's Market to alleviate congestion during peak periods.

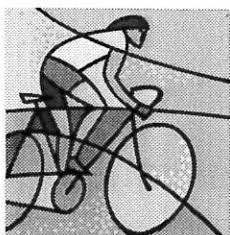
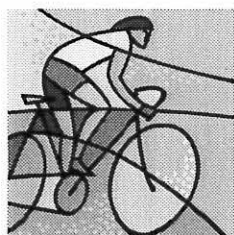




Figure II-22 MacArthur Boulevard at Tomlinson Avenue looking east from the front of Captain's Market

No. 5 MacArthur Boulevard and Ericsson Road

The intersection of Clara Barton Parkway and Ericsson Road is the location where the Clara Barton Parkway exits onto MacArthur Boulevard. The radius at the intersection is expansive and vehicles cross the bikeway to make a right turn onto eastbound MacArthur Boulevard (see **Figure II-23**). The proposed improvement is to reduce the turning radius at the intersection to slow traffic and keep vehicular traffic off the bikeway. Additional signs warning motorists as they exit the Clara Barton Parkway of the bikeway at MacArthur Boulevard will be installed.



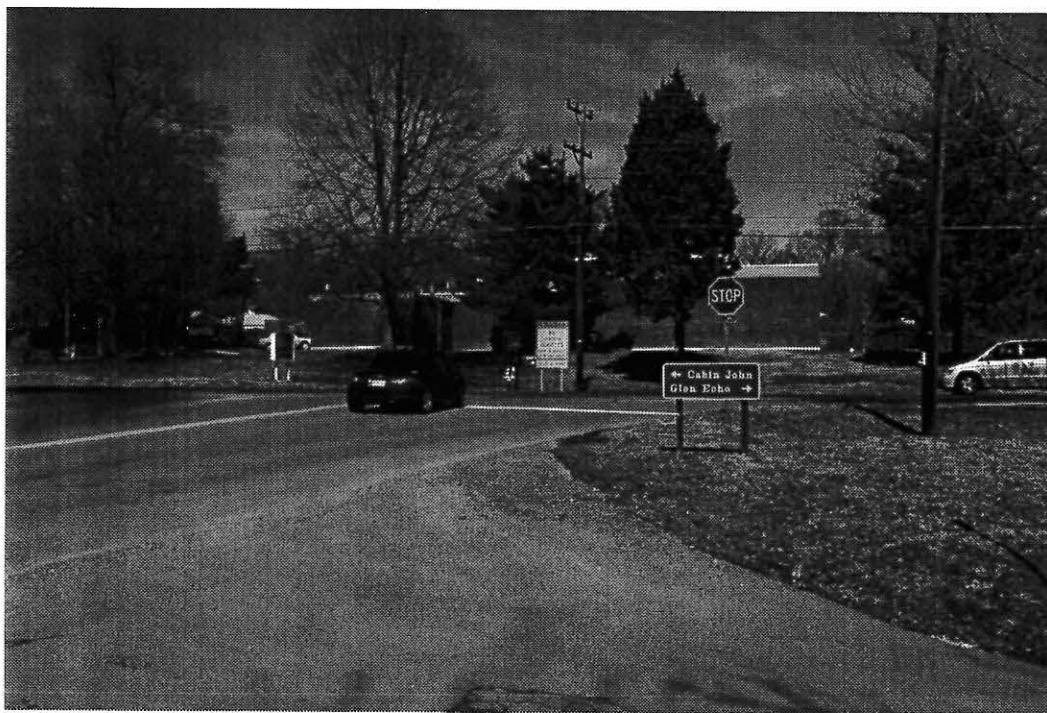
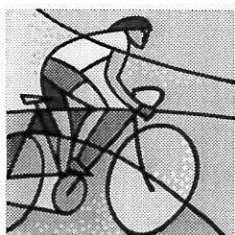


Figure II-23: MacArthur Boulevard at Ericsson Road

No. 6 MacArthur Boulevard at Wilson Lane/Union Arch Bridge

The current parking lot at the Union Arch Bridge is not paved. The existing shared use path crosses the parking lot creating a conflict between motorists and bicyclists because vehicles cross the bikeway to park. The gravel parking lot contributes to the debris on the bikeway and roadway. A ride-on bus stop is located at the parking lot with buses pulling over onto the shared use path to pick up and drop off passengers. The proposed improvement, which has been suggested by several citizens, is to reconfigure the parking lot, bus stop and bikeway to separate bicycle and vehicular traffic. The parking lot would provide a spur connection from the shared use path to the Chesapeake and Ohio Canal National Historical Park Canal Towpath at the parking area (see **Figure II-24**).



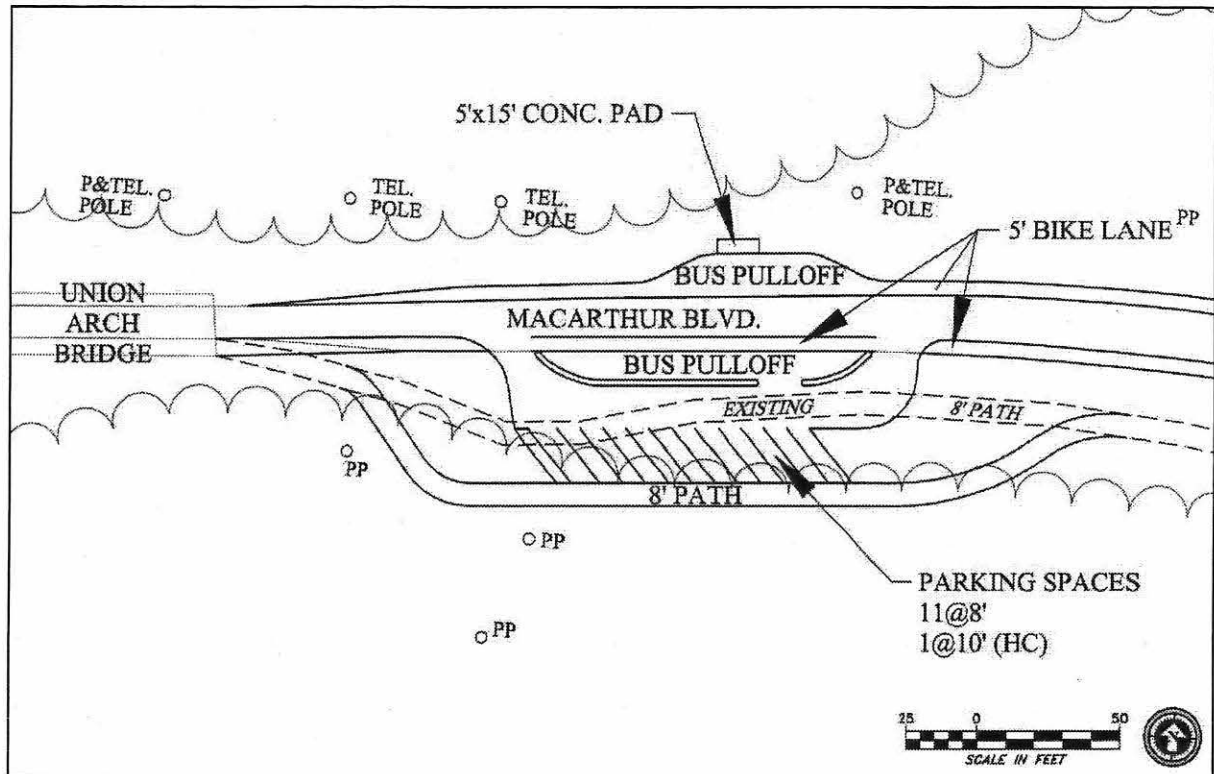
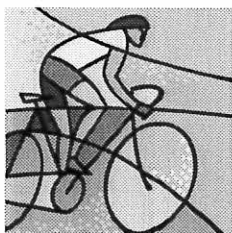


Figure II-24 Conceptual Parking Layout at Union Arch Bridge

No. 7 MacArthur Boulevard at Walhonding Road

The parking lot at the intersection of Walhonding Road and MacArthur Boulevard is currently a large expanse of asphalt pavement with no pavement markings. There is no clear entrance or exist, cars pull in along the entire length of the parking lot. The existing bikeway crosses the parking lot adjacent to the roadway creating conflicts between motorists and bicyclists as vehicles drive across the bikeway to park. Several citizens provided their ideas for improving the parking lot for safety and accessibility of bicycle and pedestrian users. The proposed improvement is to reconfigure the parking lot with a defined entry and exit to minimize potential vehicle / bicycle conflicts. The reconfigured parking lot would provide a spur connection from the shared use path to the C&O Canal Towpath (see **Figure II-25**).



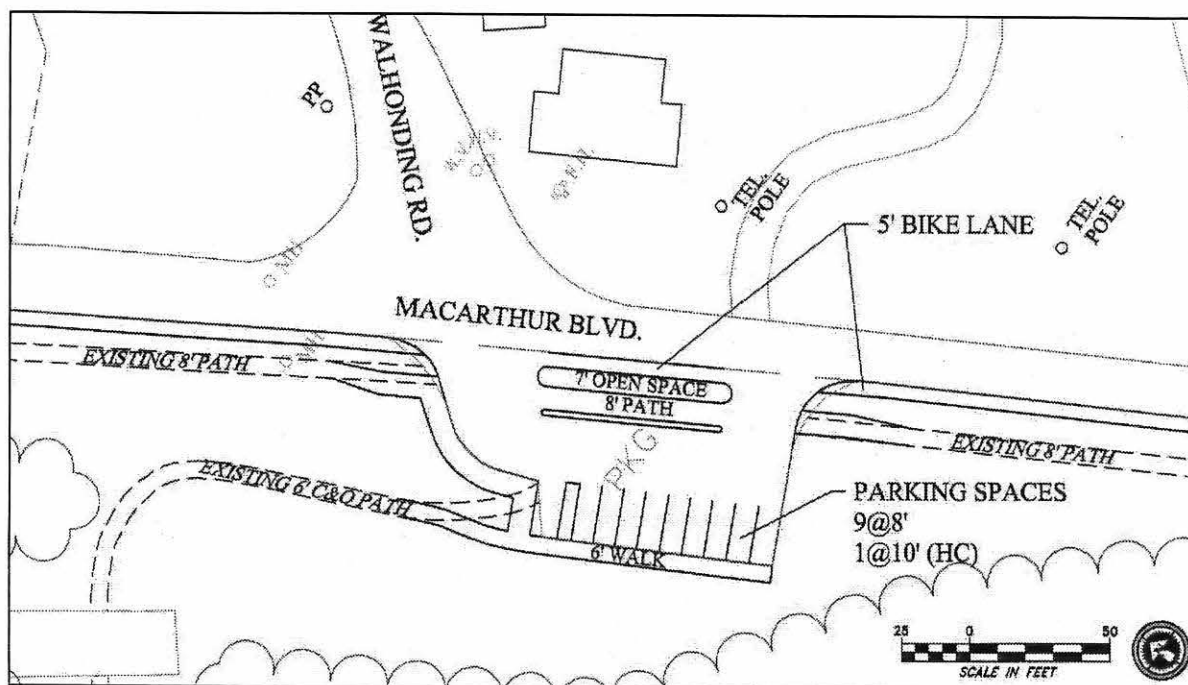


Figure II-25: Conceptual Parking Lot Design at Walhonding Road

No. 8 MacArthur Boulevard between Walhonding Road and Windward Drive

This section of existing bikeway along MacArthur Boulevard between Walhonding Road and Windward Drive is lined with overhead utility wires that may not have adequate clearance above the bikeway. Several citizens provided their ideas for improving the parking lot for safety and accessibility of bicycle and pedestrian users. The proposed spot improvement is to coordinate utility pole and overhead line height adjustments with the local utility company (see **Figure II-26**).

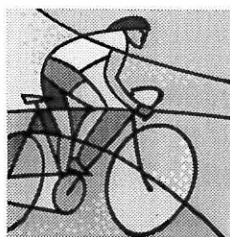




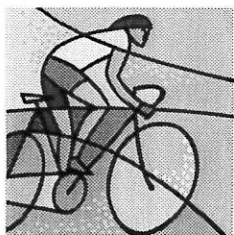
Figure II-26 MacArthur Boulevard West of Windward Road looking West

No. 9 Sangamore Road at MacArthur Boulevard

The existing entrance to the Capital Crescent Trail at Sangamore Road is on the north side of MacArthur Boulevard and not signed. The roadway intersection includes a free right turn from MacArthur Boulevard to Sangamore Road making it difficult for bicyclists and pedestrians to cross MacArthur Boulevard directly to the Capital Crescent Trail entrance. The proposed improvement to this intersection is to install pedestrian signals and crosswalks to provide a safer crossing for bicyclists and pedestrians. Additional signs at the entrance to the Little Falls Trail would warn motorists of potential conflicts with bicyclists as well as designate the entrance for bicycle access to the trail.

No. 10 MacArthur Boulevard at Windward Drive

This area of MacArthur Boulevard is very commercial with numerous businesses and government facilities fronting the roadway. The shared use path is adjacent to the roadway and is paved with no separation between the shared use path and the roadway. The width of the shared use path is approximately the width of the roadway travel lanes. Although the shared use path is marked with “no parking” signs, vehicles park on the shared use path (see **Figure II-27**). The proposed spot improvement is to create a five-foot minimum separation between the roadway and shared use path. Additional “no parking” signs would be installed to deter parking on the shared use path.



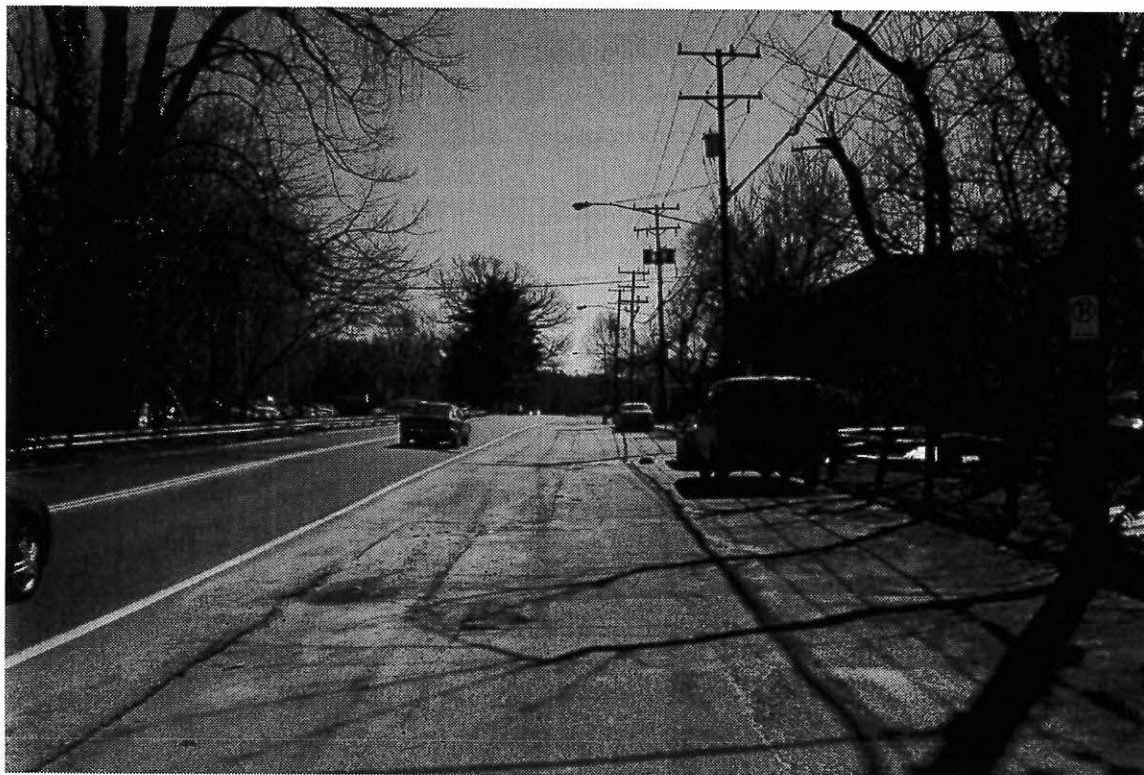


Figure II-27: MacArthur Boulevard at Windward Place Looking Eastbound

UTILITIES

For the Phase I Transportation Facility Planning Process, the Study Team performed preliminary research via site visits/photos of potential impacts to existing utilities. From this investigation, it appears that Alternatives 2 and 3 could cause the displacement of some utility poles. The effect that this utility work would have on the construction costs could be significant. As can be seen in **Figures II-7 through II-18**, in many locations the improvements can be accommodated within the existing right-of-way. Considering that the overhead utility poles are most often located very close to the edge of the roadway, the use of more accurate survey information in the design phase should help minimize impacts to utilities. It should be noted also, that this study did not make use of utility plans, which should be obtained during the design phase.

TRANSIT

MacArthur Boulevard is an important transit route for Montgomery County commuters to the Washington DC Metropolitan area. MacArthur Boulevard is a heavily used commuter route by motorists, transit riders, and bicyclists. For the Phase I Transportation Planning process, the Study Team looked at



PRELIMINARY ENGINEERING STUDIES

transit use in the corridor including the location and type of bus stops. There are four bus routes, which intersect with the Study Area. Three of the bus routes are part of the Montgomery County Transit system and one (D5) is part of the Washington Metropolitan Areas Transit Authority system. During morning and evening peak hours the buses stop every twenty to thirty minutes.

| | |
|----------|--|
| Route 32 | Bethesda Station to Cabin John weekday only during peak hours. Stops along MacArthur Boulevard between Clara Barton Parkway to Wilson Lane |
| Route 29 | Bethesda-Glen Echo-Friendship Heights weekday and weekend all day. Stop at the intersection of MacArthur Boulevard and Goldsboro Road |
| Route 23 | Friendship Heights to Sibley Hospital weekday and Saturday only all day. Stops along MacArthur Boulevard between Maryland Avenue and the D.C. Line |
| Route D5 | MacArthur Boulevard to Georgetown Line weekday only during peak hours. Stops along MacArthur Boulevard between Sangamore Road and the D.C. Line |

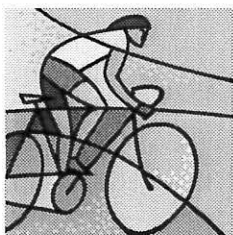
Currently, buses pull over onto the shared use path to pick up and drop off passengers where the paving is wide. While Alternatives 2 and 3 will not prevent buses from pulling on to the shared use path, the addition of the open space and the relocation of the bus stop signs adjacent to the open space may discourage bus drivers from pulling onto the shared use path.

PARKING AND VEHICLE ACCESS

Motorists illegally park on the existing shared use path even though the bikeway is signed “no parking.” The existing bikeway does not prevent vehicles from parking on the bikeway and in several intersections vehicles use the bikeway as an access lane entering and leaving MacArthur Boulevard. The shared use path varies in width and where the width is greater than six to eight feet, cars and delivery vehicles park along the bikeway. Enforcement of the “no parking” is difficult due to the inconsistent signing of the bikeway. Alternatives 2 and 3 might discourage parking on the bikeway (south side) by removing the excess asphalt pavement between the roadway and the shared use path and providing open space adjacent to the roadway. Additional signing of the bikeway will be needed, but the alternatives themselves do not prevent illegal parking. Alternatives 2 and 3 may increase illegal parking on the north side, where the shoulder is wide enough for a vehicle, because the alternatives do not provide pull over access for mail and delivery trucks on the north side.

CONNECTIVITY OF THE BIKEWAY NETWORK

One of the goals of the study was to enhance the connections between the MacArthur Boulevard Bikeway and other bikeways in the Study Area. Therefore, alternative 2 and 3 were developed to provide



PRELIMINARY ENGINEERING STUDIES

connectivity to the spur trails linking MacArthur Boulevard to other bikeways and shared use path in the area.

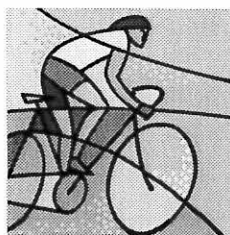
Alternative 2 provides direct access to:

- The Little Falls shared use bike path
- Chesapeake and Ohio Canal National Historical Park Towpath
- The Chesapeake and Ohio Canal National Historical Park Towpath.

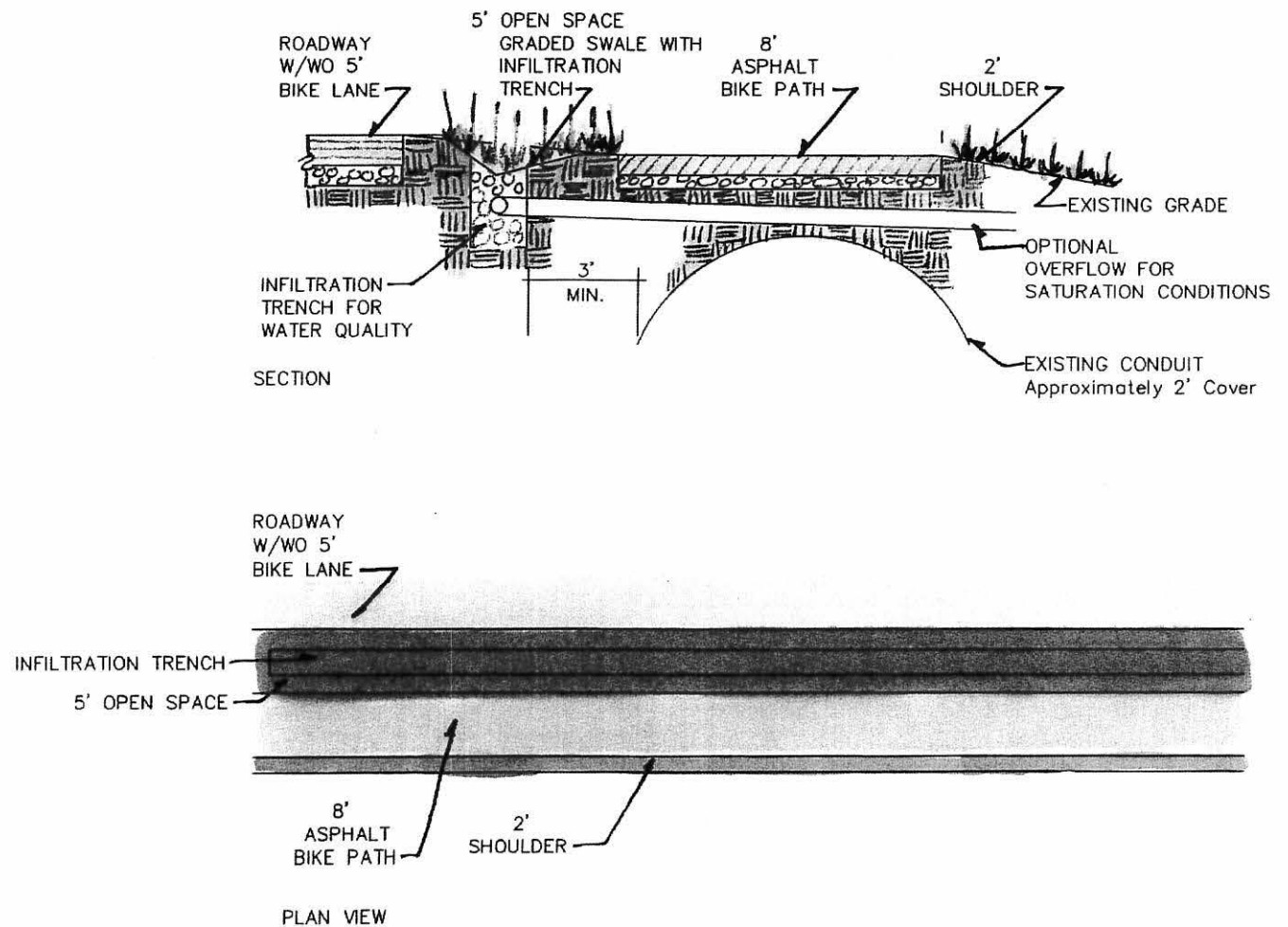
Alternative 3 provides direct access to:

- The Seven Locks Road shared use bike path
- Little Falls shared use bike path
- Capital Crescent Trail
- Chesapeake and Ohio Canal National Historical Park Towpath.

A direct connection to the shared use bike path at Falls Road would not be provided by either alternative. Bicyclists and pedestrians wishing to connect to Falls Road must leave the Shared Use Path and travel on-road 1.5 miles along MacArthur Boulevard to Falls Road. The spot improvement to the Sangamore Road intersection will provide a better connection to the Capital Crescent Trail for both pedestrians and bicyclists. **Figures II-7 through II-18** show the existing spur trails between MacArthur Boulevard and the Chesapeake and Ohio Canal National Historical Park Canal Towpath, which will be maintained for both Alternatives 2 and 3.



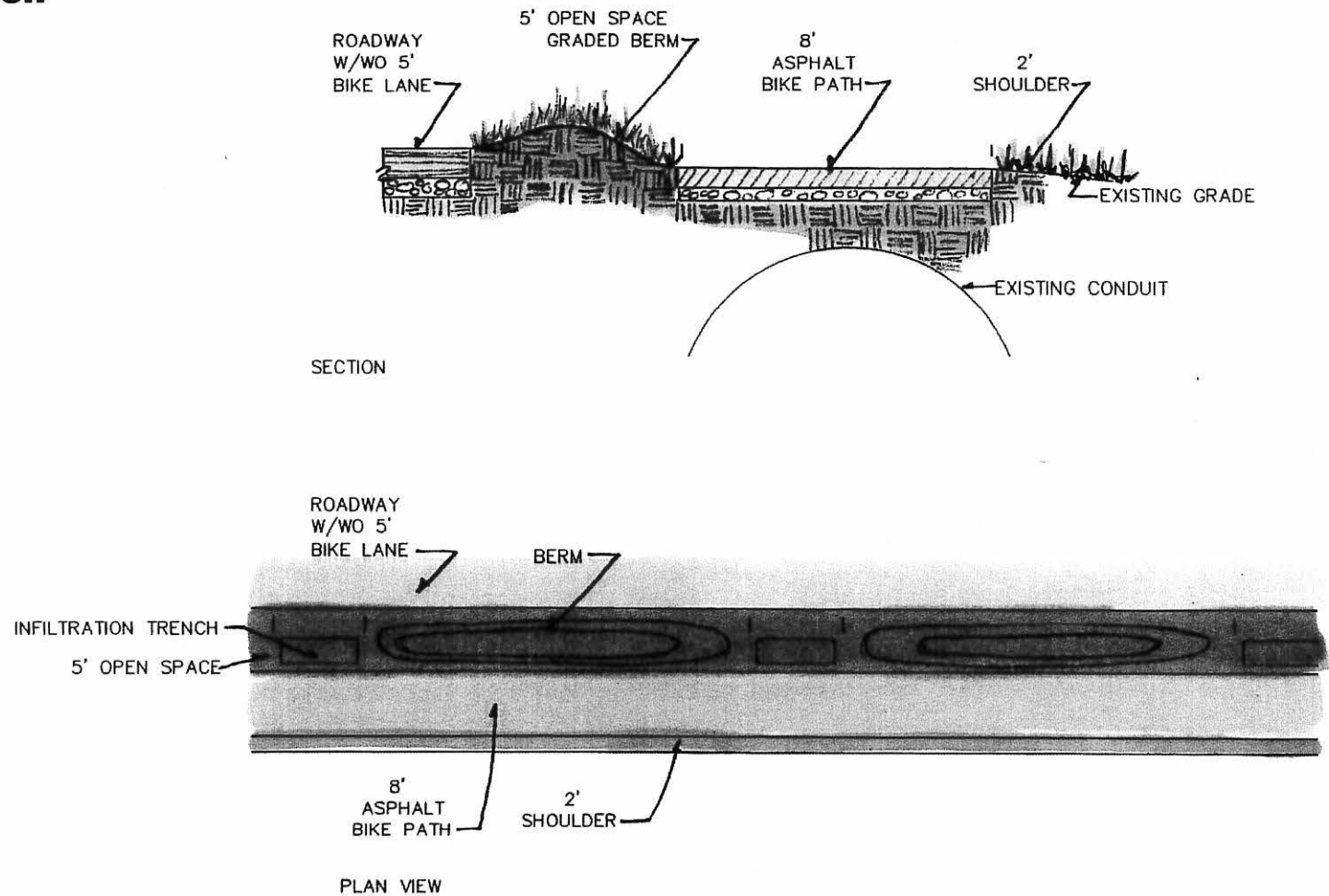
Option 1 – Open Section Graded Swale with Infiltration Trench



MacArthur Boulevard Open Space Treatment Options

Figure II-1

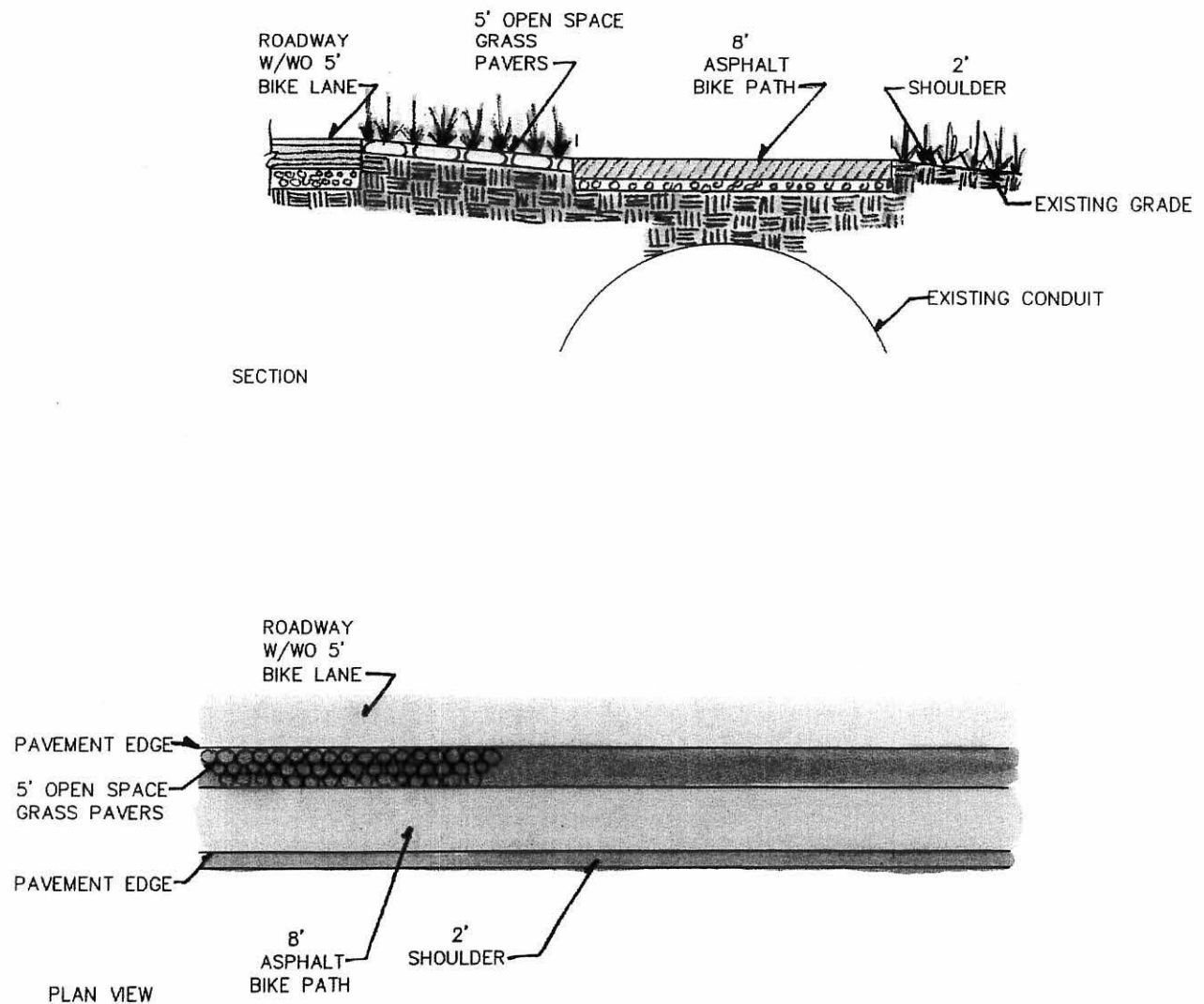
Option 2 – Open Section Graded Berm with Infiltration Trench



MacArthur Boulevard Open Space Treatment Options

Figure II-2

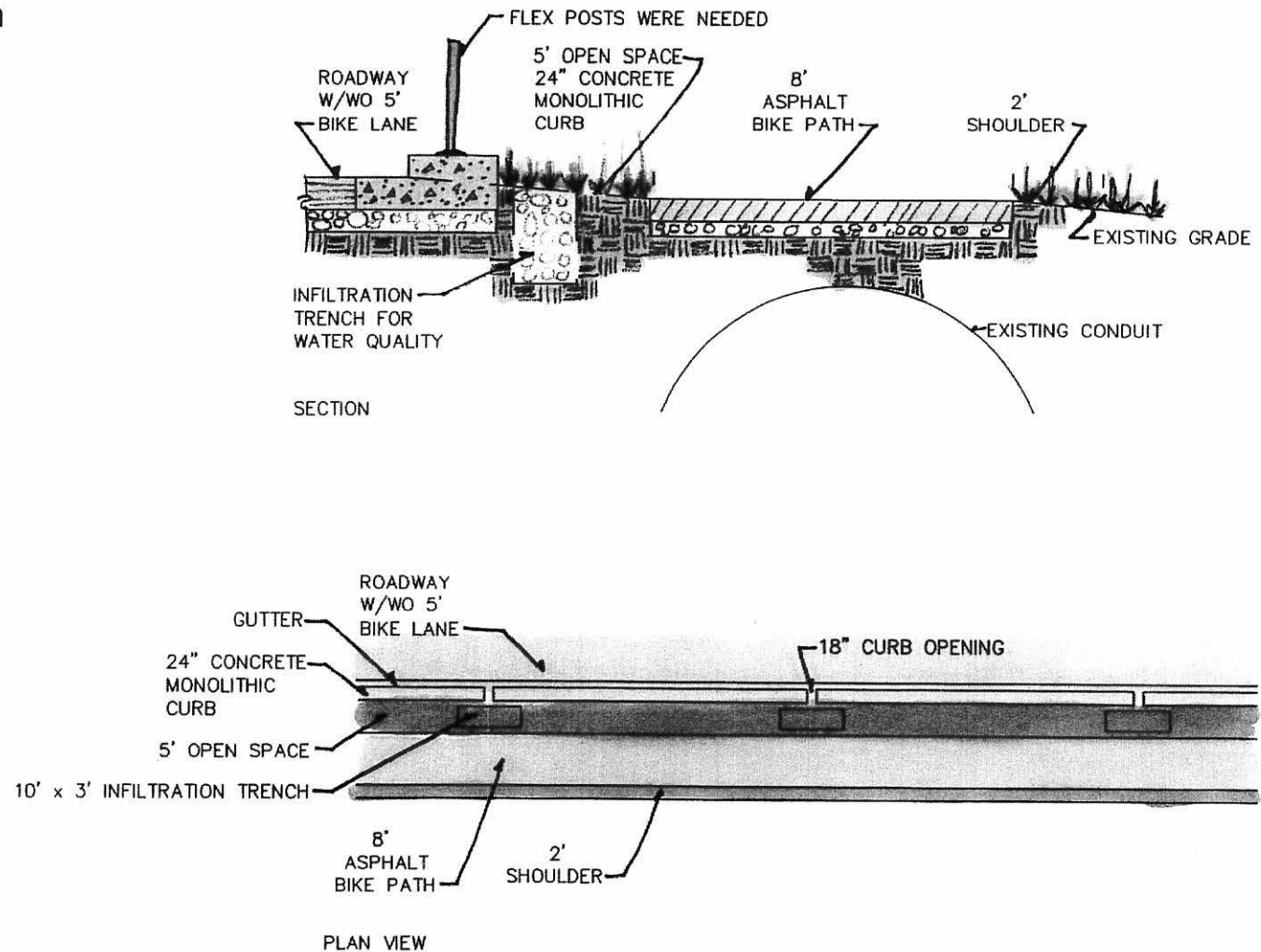
Option 3 – Open Section Grass Pavers



MacArthur Boulevard Open Space Treatment Options

Figure II-3

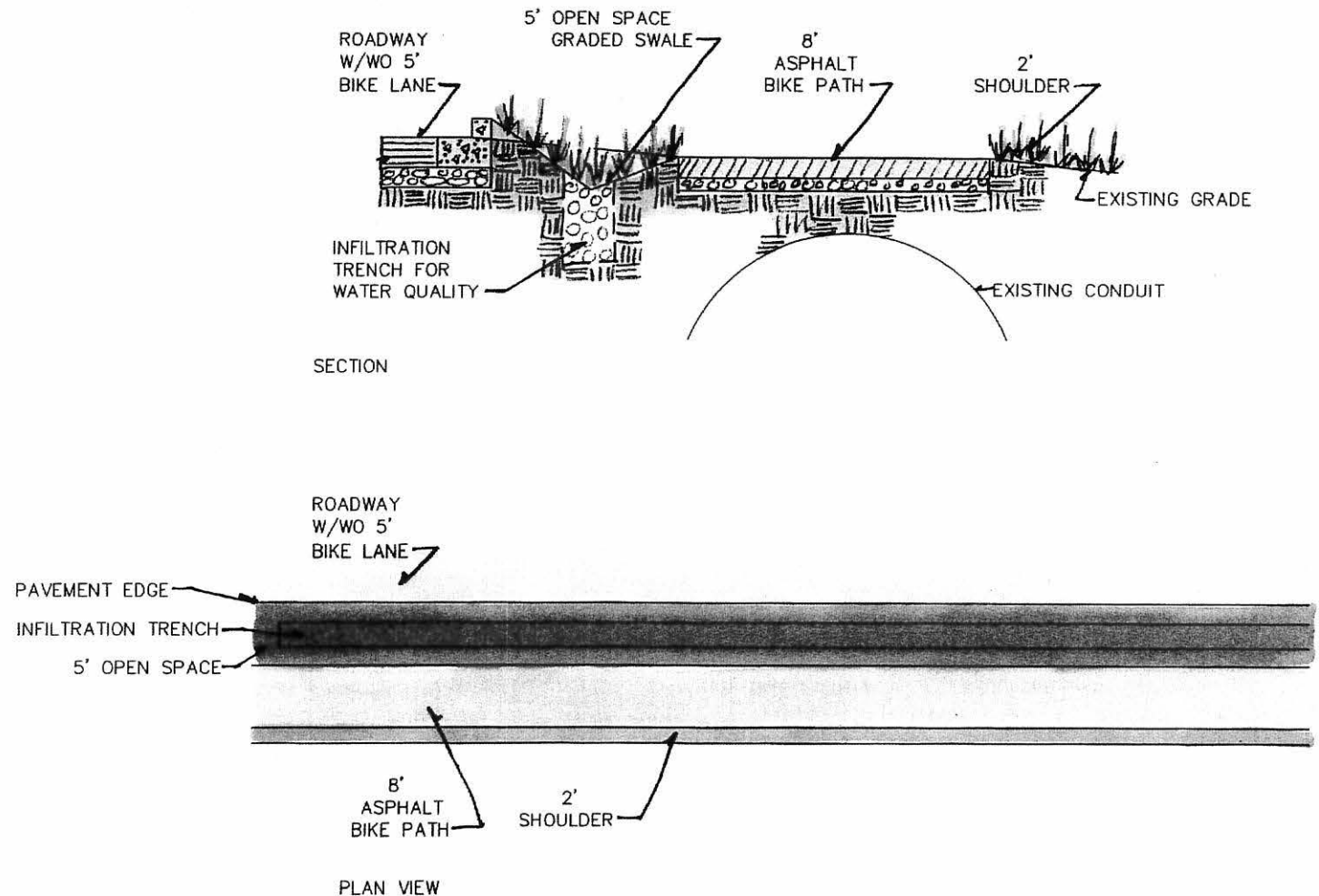
**Option 4 – Closed Section
24" Monolithic Curb with
Infiltration Trench**



MacArthur Boulevard Open Space Treatment Options

Figure II-4

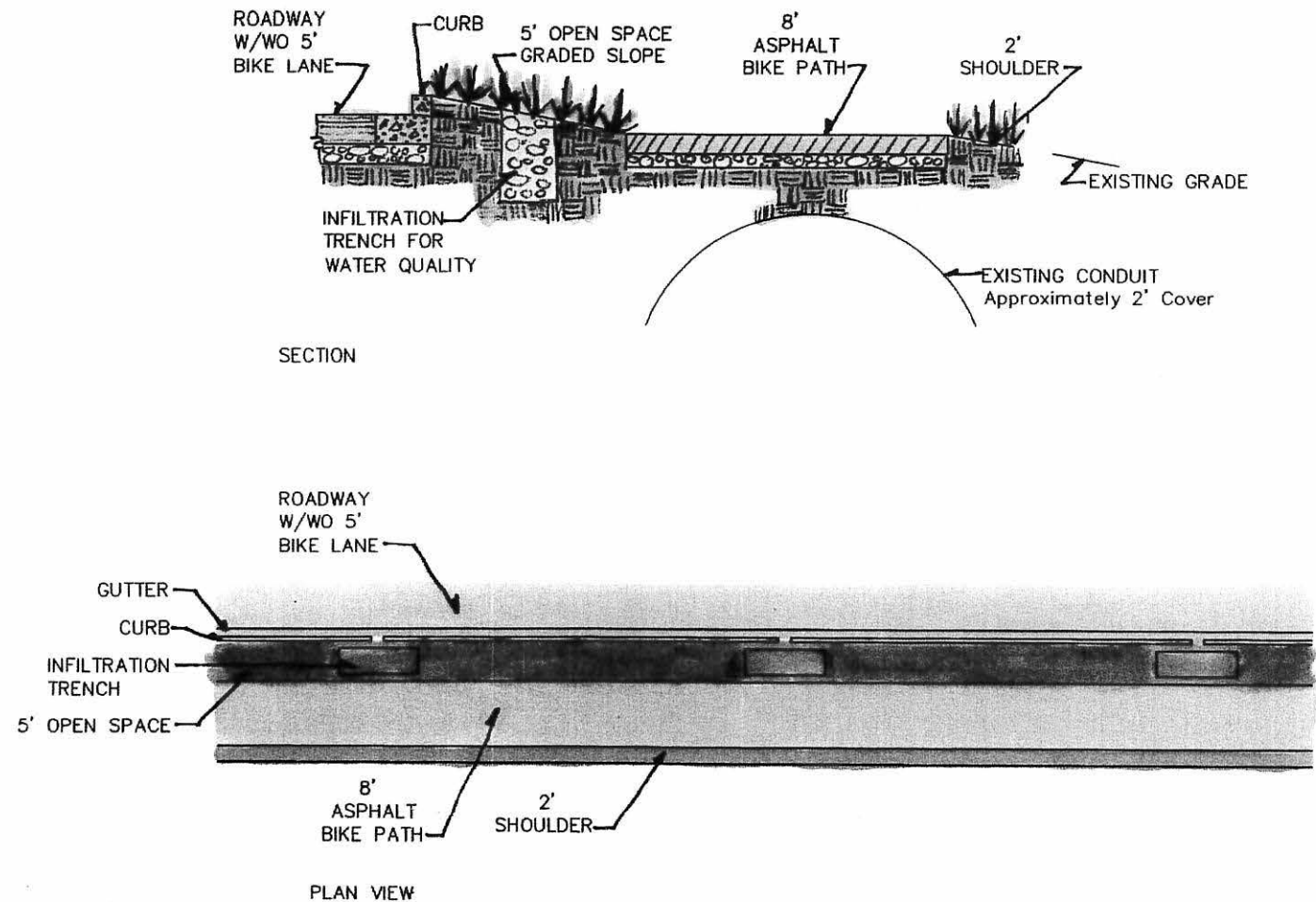
**Option 5 – Closed Section
Graded Swale with
Infiltration Trench**



MacArthur Boulevard Open Space Treatment Options

Figure II-5

Option 6 – Closed Section Curb with Graded Slope



MacArthur Boulevard Open Space Treatment Options

Figure II-6

SECTION III

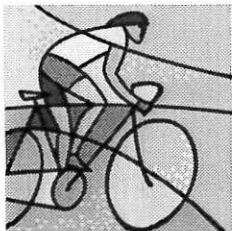
ENVIRONMENTAL RESOURCES

INTRODUCTION

The Study Team completed an environmental inventory, including a cultural resources inventory and socio-economic analysis, for the MacArthur Boulevard Bikeway Phase I Facility Planning Study Area. The purpose of the inventory is to provide the Department of Public Works and Transportation (DPWT) with information on the existing conditions and environmentally sensitive areas that could be impacted by improvements to the existing bikeway. The following potential resources and possible constraints have been evaluated:

- Topography, geology and soils
- Wetlands and Other Waters of the U.S.
- Forests
- Rare, threatened, or endangered species and their habitats
- Hazardous wastes
- Air quality and noise
- Cultural and historic resources
- Socioeconomics
- Americans with Disabilities Act
- Right-of-Way and land acquisition

The Study Team has reviewed available published documents and information, and conducted a site reconnaissance to record existing conditions. A review of the materials listed in **Table III-1** provided preliminary information regarding natural resources, cultural and historic resources and socioeconomic data. Results of these studies, as well as an evaluation of potential impacts for each alternative, are presented below.



ENVIRONMENTAL RESOURCES

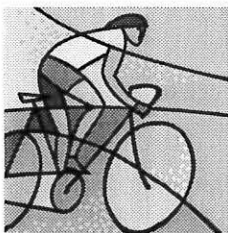
Table III-1
Reference Materials

| Document | Source |
|---|--|
| USGS topographic map for Falls Church and Washington West, Maryland (1965, photo revised 1991 and 1983) | United States Geological Survey (USGS) |
| National Wetlands Inventory (NWI) map for Falls Church and Washington West, Maryland | United States Department of the Interior, Fish and Wildlife Service |
| Flood Insurance Rate Map, Panel 175 (1984) | Federal Emergency Management Agency |
| Hydric Soils of the United States (1991) | United States Department of Agriculture, Natural Resources Conservation Service |
| Soil Survey of Montgomery County, Maryland (1995) | United States Department of Agriculture, Natural Resources Conservation Service |
| National Register of Historic Places: Maryland Listings (Index by County) | Maryland Historical Trust website (www.marylandhistoricaltrust.net) |
| 1990 Approved and Adopted Bethesda-Chevy Chase Master Plan | M-NCPPC |
| 1991 Approved and Adopted Potomac Subregion Master Plan | M-NCPPC |

NATURAL ENVIRONMENT

TOPOGRAPHY AND GEOLOGY

The majority of Montgomery County is in the Piedmont physiographic province, where the bedrock consists predominantly of metamorphic rocks of Paleozoic age called the Wissahickon Group. Only a very small area along the eastern border of the County is covered by sediments of the Coastal Plain physiographic province. Steep slopes exist throughout the Study Area with steep slopes bordering MacArthur Boulevard from the D.C. Line to the Capital Beltway. Between the Capital Beltway and the Old Anglers Inn MacArthur Boulevard is bordered by relatively flat to gentle slopes. The existing bikeway does not traverse up and down these steep slopes. The bikeway does, however, follow a very sinuous route for its entire length within the Study Area. There would be no impacts to steep slopes for the No-Build Alternative; however, the build alternatives would result in impacts to steep slopes for construction of the bike lanes and shared use path on the south side of MacArthur Boulevard. Alternative 2 would impact approximately 2.08 acres of steep slopes. Alternative 3 would result in approximately 4.62 acres of impact. Alternative 3 requires greater impacts due to the addition of the bike lanes on each side of the roadway.



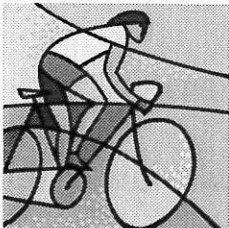
SOILS

The Soil Survey of Montgomery County shows that soils within the Study Area consist of several different soil series. The most dominant soil series present include the Gaila silt loams and the Elsinboro silt loams. Both of these soils are deep and well drained. They have moderate permeability, moderate available water capacity, and a moderate potential of frost. Also common within the Study Area are Travilah silt loams and Glenelg silt loams. The Travilah silt loam is a moderately deep, somewhat poorly drained soil, usually found on uplands. The Glenelg silt loam is a very deep, well-drained soil, generally found on side slopes of uplands, but often dissected by small drainageways. A typical soil profile for each of these soils is found in **Table III-2**.

Also present within the Study Area, however not as prominent, are Wheaton silt loams, Blocktown channery silt loams, Brinklow-Blocktown channery silt loams, Glenville silt loams, Baile silt loams, and Watchung silty clay loams. The Baile and Glenville soils are mostly found within stream channels, and the Blocktown soils usually border those streams. Urban land, both individually and mixed with Glenelg soils is also found. Urban land exists when asphalt, concrete, buildings, or other structures cover greater than 75 percent of the soil surface area. This Urban land is found at the eastern-most end of the Study Area. Near the western-most end of the Study Area near the Potomac River and Great Falls Park, there are the Rock outcrop-Blocktown complex soils. Exposed bedrock, detached boulders and stones dominate these areas. Blocktown soils are found between the rocks.

Table III-2:
Typical Soil Profiles of the Study Area

| <u>Soil Series</u> | <u>Depth (inches)</u> | <u>Color</u> | <u>Texture</u> |
|----------------------------------|---------------------------|---|-----------------|
| Gaila silt loam (1C) | 0-8 | Brown | Silt loam |
| | 8-17 | Strong brown | Loam |
| | 17-20 | Yellowish brown | Loam |
| | 20-76 | Yellowish brown | Fine sandy loam |
| Elsinboro silt loam (41B) | 0-37 | Dark yellowish brown | Silt loam |
| | 37-54 | Dark brown | Silt loam |
| | 54-60 | Strong brown w/ strong brown mottles | Silt loam |
| Travilah silt loam (37B) | 0-5 | Dark grayish brown | Silt loam |
| | 5-10 | Light yellowish brown | Silt loam |
| | 10-15 | Yellowish brown w/ light brownish gray mottles | Silty clay loam |
| | 15-24 | Dark yellowish brown w/ light brownish gray mottles | Silt loam |
| | 24-33 | Yellowish brown and dark yellowish brown | Silty clay loam |



ENVIRONMENTAL RESOURCES

| <u>Soil Series</u> | <u>Depth (inches)</u> | <u>Color</u> | <u>Texture</u> |
|---|---------------------------|---------------|----------------|
| Glenelg silt loams (2B, 2UB) | 0-8 | Brown | Silt loam |
| | 8-12 | Strong brown | Silt loam |
| | 12-16 | Yellowish red | Silt loam |
| | 16-28 | Strong brown | Silt loam |
| | 28-35 | Yellowish red | Silt loam |
| | 35-60 | Yellowish red | Loam |

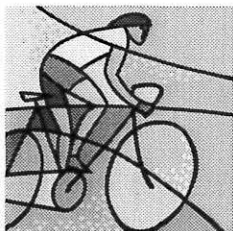
Source: United States Department of Agriculture. 1995. *Soil Survey of Montgomery County, Maryland, Sheets No. 26 & 27*. Soil Conservation Service in cooperation with Maryland Agricultural Experiment Station.

WETLANDS & OTHER WATERS OF THE U.S.

The Project Study Area falls within the Washington Metropolitan Area drainage basin along the Maryland – Virginia border, divided by the Potomac River. All tributaries to the Potomac River, including Rock Run and Cabin John Creek, within the Study Area are classified as Use I waters – Water Contact Recreation and Protection of Aquatic Life. No instream work would be permitted in these waters during the period of March 1 through June 15, during any year. Floodplain within the Study Area is associated with both Rock Run and Cabin John Creek. The No-Build Alternative would not result in any floodplain impacts, however, Alternative 2 would impact approximately 0.41 acres of these floodplains, and Alternative 3 would impact approximately 1.19 acres.

The *National Wetlands Inventory* (NWI) maps for *Falls Church* and *Washington West* identify several wetland systems within the Study Area. The *Falls Church* map contains the majority of the Study Area. It illustrates the westernmost end of the Study Area as having several wetland systems on the south side of MacArthur Boulevard and down slope, not within the vicinity of proposed bikeway improvement. A palustrine forested wetland is located near the intersection of Clara Barton Parkway and MacArthur Boulevard. All other wetland areas identified on this map are located south of the C & O Canal, likewise not within the vicinity of proposed bikeway improvements. The *Washington West* map illustrates only the open water reservoir located at the easternmost end of the Study Area.

A site reconnaissance confirmed NWI wetland locations throughout the Study Area, as well as several other potential wetland areas. The majority of wetlands within the project limits are characterized as wet drainage ditches along the roadway. The majority of these ditches are maintained grass; however, some ditches contain wetland vegetation. Twenty-five ditches have been identified in the field and are located on the Alternative 2 and 3 plan sheets (See **Figures II-7 through II-18**). Not all the ditches are considered to be Waters of the U.S. Ten of these areas have been labeled as drainage ditches. They do not contain any wetland vegetation within the ditch. Three of the areas have been labeled as ephemeral



ENVIRONMENTAL RESOURCES

ditches, and are located adjacent to existing streams. Twelve areas have been identified as potential linear wetland sites. These are the areas in which the ditches contained various wetland vegetation such as soft rush (*Juncus effusus*), jewelweed (*Impatiens capensis*), cattail (*Typha sp.*), and sedge species (*Carex sp.*), and soils displayed hydric conditions such as gleying.

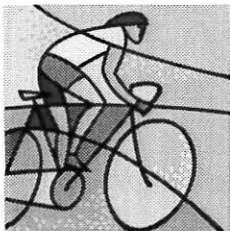
Approximately six areas have been identified as potential wetland systems that are not linear wet ditches. The forested wetland identified on the NWI map and in the field, at the intersection of Clara Barton Parkway and MacArthur Boulevard, is located approximately 40 feet from the existing bikeway on the south side of the road. The dominant species consists of tulip poplar (*Liriodendron tulipifera*), sycamore (*Platanus occidentalis*), red maple (*Acer rubrum*), and spicebush (*Lindera benzoin*). The area exhibited several drainage patterns, standing water, inundation, and soils were gleyed and saturated.

Another potential jurisdictional wetland area was identified at Vendome Drive, along the north side of MacArthur Boulevard. The area was inundated and ponded in some locations. Again, species include red maple, sycamore, and tulip poplar. This low area appears to be connected to a storm grate system and an ephemeral ditch. Approximately 1,200 feet east of this area, just before Eggert Drive, is Rock Run stream. The stream flows under MacArthur Boulevard. Surrounding the stream, on both the north and south side of the roadway, are potential wetland areas. The area to the north side of the roadway had standing water at the time of the field investigation and sandy saturated soils. Species were again similar, with deer tongue (*Panicum clandestinum*) and jewelweed herbaceous cover. The south side of the roadway is mostly fenced private property.

Further east of these wetlands is another location in which MacArthur Boulevard connects to the Clara Barton Parkway, adjacent to Oberlin Drive. In between these two roadways is another potential wetland site. Two potential wet areas are located there, one adjacent to the loop ramp onto the Parkway, and one adjacent to a mowed maintenance path along MacArthur Boulevard. There were areas of standing water and saturation. Species include those described above, along with cottonwood (*Populus deltoides*) and Japanese honeysuckle (*Lonicera japonica*).

Approximately 19 streams were also identified within the Study Area, varying in size. Many of the larger streams have steep slopes on either side of the stream banks. Bridges and culverts extend across all of these systems for the existing trail. Refer to **Figures II-7 through II-18** for the locations of all these systems.

The No-Build Alternative would not impact any wetlands or other Waters of the U.S. and wetland impacts for all of the build alternatives would be minor. Alternative 2 would impact approximately 0.05 acres of wetlands. Linear wetland ditches along the roadway have been assumed to be five feet wide. The majority of linear wetland ditches exist on the north side of MacArthur Boulevard, where Alternative 2 project limits do not extend. Alternative 3 potentially impacts a greater amount of wetlands due to the



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addition of the bike lane on the north side of the roadway, however, impacts are still minor, approximately 0.58 acres.

Stream impacts would also result from construction of all of the build alternatives. Impacts have been assumed for the entire length of the stream impacted, regardless if the stream is currently through a culvert. Approximately 433 linear feet of stream impacts may result from Alternative 2, however, only eight feet is natural stream. The amount of stream impacts would depend on whether construction activities intrude upon the existing culverts and to the waters. Alternative 3 would result in approximately 1,679 linear feet of stream impact, 25 feet of which is natural channel.

Permits

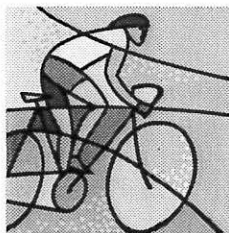
Section 404 of the Clean Water Act (CWA) contains the jurisdictional requirements for permitting of wetlands. The CWA requires a permit from the U.S. Army Corps of Engineers be obtained prior to placing dredged or fill material in wetlands or other waters of the U.S. An official wetland delineation will need to be performed for the Study Area. A jurisdictional determination with the Corps of Engineers would be required and a Joint Permit Application submitted to the Maryland Department of the Environment (MDE). In addition, the Maryland Nontidal Wetlands Protection Act also requires that a permit or letter of authorization be obtained for any impacts to nontidal wetlands or their buffers.

FORESTS

Forests are defined by the Maryland Department of Natural Resources (DNR) as “a biological community dominated by trees and other woody plants covering a land area of 920 meters squared (10,000 square feet) or greater. Forests include areas that have at least 100 trees per 0.4 hectare (per acre) with at least 50 percent of those having a five centimeter (two inch) or greater diameter at 1.3 meters (4.5 feet) above the ground and larger, and areas that have been cut but not cleared.” Additionally, forests are areas that are at least 10.6 meters (35 feet) wide. A large portion of the Study Area consists of forest. In some locations the forested areas are mixed with residential homes.

Upland deciduous forest is prevalent throughout most of the site. Dominant species include red maple, tulip poplar, sycamore, beech (*Fagus grandifolia*), chestnut oak (*Quercus prinus*), white oak (*Quercus alba*), black oak (*Quercus velutina*), and red oak (*Quercus rubra*). Co-dominant species include cottonwood, sugar maple (*Acer saccharum*), and dogwood (*Cornus florida*). In areas with residential communities in very close proximity to the roadway, shrubs and saplings create more of a brush area than a forest. Although species diversity remains relatively uniform throughout the Study Area, there is an obvious increase in the dominance of beech trees west of the Capital Beltway.

Forest impacts have been calculated from the drip line of all forested area within the limit of disturbance for each of the build alternatives. Approximately 3.79 acres of forest impacts are estimated



ENVIRONMENTAL RESOURCES

for Alternative 2, and approximately 7.32 acres are estimated for Alternative 3. By using the drip line of the forest, a worst-case estimate of forest impacts can be calculated. Much of these areas may be avoided during construction or may just involve minor pruning.

Montgomery County defines a specimen tree as a tree exhibiting a 30" diameter at breast height (dbh) or greater. This preliminary review identified approximately 60 specimen trees located within the vicinity of the proposed project. The estimated locations of these trees appear on the base map in **Figures II-7 through II-18**. The No-Build Alternative would not impact any specimen trees. Alternative 2 would impact four specimen trees, and Alternative 3 would impact three specimen trees. Design measures will attempt to avoid these specimen trees wherever possible.

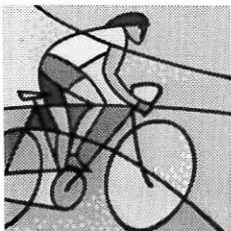
Permits

As part of the Montgomery County Forest Conservation Law, if the proposed project will require clearing of greater than 40,000 square feet of forest, then continuation of the project will require a Forest Stand Delineation/Natural Resources Inventory and Forest Conservation Plan be prepared and approved by the Planning Board or Planning Director. The requirements and methodology for the delineation are contained in *Trees: Approved Technical Manual*, and plans would follow the guidelines found in the *M-NCPPC Montgomery County Planning Board Forest Conservation Regulations*. Reforestation for the forest removed would need to be provided at a 1:1 ratio. Edge trees are sensitive to many outside natural and unnatural forces such as weather and growing development, as well as provide a unique ecological niche, and therefore particular attention will be focused on impacts and survival of these trees. Special protection devices may be needed during construction to assure that those species remaining are stable.

RARE, THREATENED, & ENDANGERED SPECIES

Coordination with the U.S. Fish and Wildlife Service (USFWS) has revealed that there are no federally proposed or listed threatened or endangered species known to exist within the Study Area. The Maryland Department of Natural Resources (DNR) Forest, Wildlife and Heritage Service database indicates that there are numerous records for species of concern known to occur in the area of the C & O Canal, within the project vicinity. Although proposed improvements are anticipated to be localized within the existing right-of-way and therefore only minimal impacts resulting, if any work is proposed near the C & O Canal, more detailed project plans will need to be submitted to the DNR for further evaluation.

The Maryland DNR Environmental Review, Freshwater Fisheries Division, has not documented any spawning activities of anadromous fish species in any tributary within the Study Area. These tributaries do, however, support many fish species. The instream work prohibition period previously mentioned, sediment and erosion control methods, and other Best Management Practices should provide adequate protection for these species. Refer to **Appendix A** for agency correspondence.



HAZARDOUS MATERIALS

A Preliminary Environmental Site Assessment (ESA) was conducted for the Study Area. The objective of this investigation was to identify “recognized environmental conditions” that may exist within the Study Area without actually entering the individual properties or interviewing property owners. The two tasks conducted for this review included a records review and initial site reconnaissance. A site reconnaissance of the Study Area was conducted in November 2002. The site reconnaissance confirmed that several of the database findings identified along side streets and other areas are not within close proximity to the bikeway and are not considered a potential hazard for the bikeway project.

The records review included an environmental database search by Environmental Data Resources, Inc. (EDR). A Radius Map with Geotrack search identified government records for sites within and surrounding the entire Study Area. **Figure III-1** is a map of the area searched by EDR. Under Federal ASTM Standards, one Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) listing and one Emergency Response Notification System (ERNS) listing were identified. CERCLIS contains information on potentially hazardous waste sites that have been reported to the U.S. Environmental Protection Agency (EPA) by states, municipalities, private companies and private persons. These sites are either proposed to be or are on the National Priorities List (NPL) and are in the screening and assessment phase for possible inclusion on the NPL. ERNS records and stores information on reported releases of oil and hazardous substances. Additionally, six Resource Conservation and Recovery Information System (RCRIS) listings were identified. This database lists sites which generate, transport, store, treat and/or dispose of hazardous waste. These six listings specifically refer to small quantity generators located on site.

Federal ASTM Supplemental government listings revealed one Hazardous Materials Information Reporting System (HMIRS) listing, which contains hazardous material spill incidents that have been reported to the Department of Transportation, and one PCB Activity Database System (PADS) listing, which identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's (Polychlorinated Biphenyls) who are required to notify the EPA of such activities.

Under State ASTM Standards, 13 registered underground storage tanks (UST), and 48 OCPCASES were identified. OCPCASES are cases that are monitored by the Oil Control Program of the MDE. These cases can be leaking USTs and other below ground releases, leaking aboveground storage tanks (ASTs), spills, and inspections. State or Local ASTM Supplemental searches identified ten Historical USTs, three Historical LUSTs (Leaking Underground Storage Tanks) and one permitted AST. In 1999, the MDE stopped adding new sites to its Recovery Sites Database and, therefore, current LUSTs may be found in the OCPCASES database.

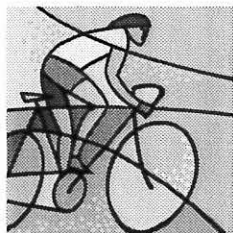
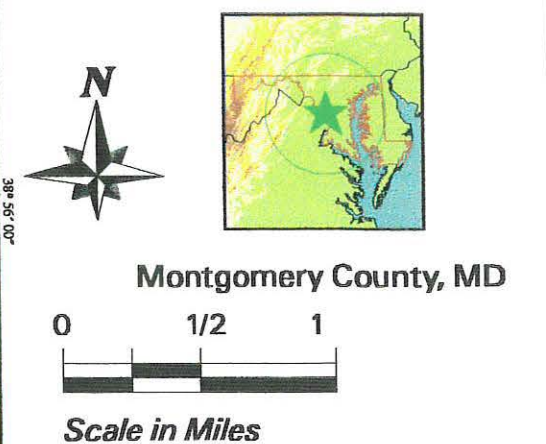


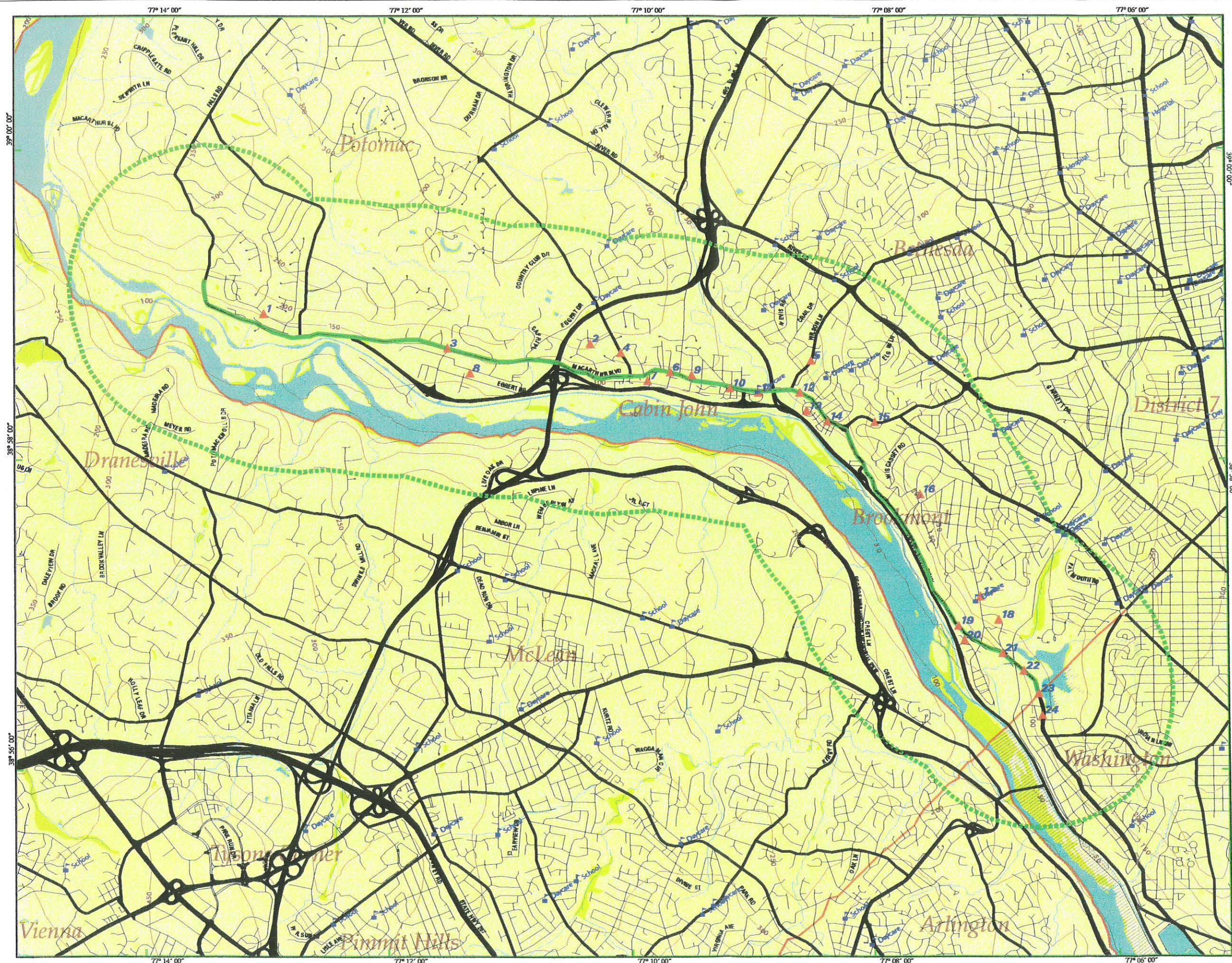
Figure III – 1
Hazardous Waste Sites

MacArthur Blvd Bike Ln. Improvement

-  Listed Sites
-  Earthquake Epicenters (Richter 5 or greater)
-  Search Boundary
-  Roads
-  Major Roads
-  Waterways
-  Railroads
-  Contour Lines
-  Pipelines
-  Powerlines
-  Fault Lines
-  Water
-  Superfund Sites
-  100-Yr Flood Zones
-  Wetlands



EDR Environmental Data Resources, Inc.
1-800-252-0050



ENVIRONMENTAL RESOURCES

The following are the sites identified in the EDR search that are along or near MacArthur Boulevard and the hazardous material information for each site:

Naval Surface Warfare Center – 9500 MacArthur Boulevard. The naval center is located at the western end of the Study Area, on the south side of MacArthur Boulevard and north of the Clara Barton Parkway. This site is identified as having more government listings than any other within the Study Area. It is listed as having five USTs currently in use, 28 Historical USTs either all removed or currently out of use, one Historical LUST, 22 ASTs, FINDS (Facility Index System), and OCPCASE records. (Listed Site #3 on **Figure III-1**)

Clara Barton Recreation Center – 7425 MacArthur Boulevard. This school is located in the approximate center of the Study Area. The site is identified on the UST and Historical UST listing. Both listings refer to the same 6,000-gallon heating oil tank currently in use. (Site #11)

National Park Service (Glen Echo Park) – 7300 MacArthur Boulevard. Glen Echo Park is located on the south side of MacArthur Boulevard, north of Clara Barton Parkway. The Park Service property is identified on the FINDS and RCRIS government listings for the use of a small quantity generator. No violations have been identified. This site is also listed as having three USTs, two for heating oil and one for gasoline, all listed as permanently out of use. (Site #12)

Glen Echo Baptist Church – 2 Vassar Circle. The church is located south of MacArthur Boulevard and is listed as having two USTs. One 550-gallon heating oil tank is listed as currently in use, and one 1,000-gallon heating oil tank is listed as permanently out of use. (Site #13)

National Park Service (Clara Barton House) – 5801 Oxford Road. This site is also located south of MacArthur Boulevard. One 2,000-gallon UST is listed as containing heating oil and is currently in use. The site is also listed under OCPCASES, although with a closed status. (Site #14)

Brooke Park Apartments – 6307 MacArthur Boulevard. Located on the eastern end of the Study Area, this site is listed on the UST and Historical UST government databases. One 2,000-gallon and one 7,000-gallon heating oil tank are listed as currently in use. (Site #19)



ENVIRONMENTAL RESOURCES

Exxon Gas Station – 6100 MacArthur Boulevard. The gas station is located on the south side of MacArthur Boulevard at the eastern end of the Study Area. Six Historical USTs and six USTs have been listed at this site. Both listings refer to the same tanks. Three tanks are listed as currently in use, and contain gasoline and heating oil. The other three tanks are listed as having contained heating oil and used oil and are permanently out of use and have been removed. The site is also identified on the FINDS and RCRIS government listings for the use of a small quantity generator. No violations have been identified. (Site #21)

Benfield's Garage – 6124 MacArthur Boulevard. Benfield's Garage is listed under the Historical UST database as having had two gasoline tanks, one 550-gallon and one 1,000-gallon, and both have been removed. Site reconnaissance revealed that this site is now a part of the Wild Bird Center gift shop, and appears to no longer function as a garage. (Site #21)

National Imagery and Mapping Agency (Defense Mapping Agency) – 6000 MacArthur Boulevard. The site is also identified on the FINDS and RCRIS government listings for the use of a small quantity generator. No violations have been identified. Two tanks have been identified in the Historical UST listing. One 30,000-gallon and one 12,000-gallon heating oil tank are listed as currently in use. (Site #22)

U.S. Army Corps of Engineers Wastewater Treatment Plant & Washington Aqueduct – 5900 MacArthur Boulevard. This site is located at the eastern limit of the Project Study Area, along the Maryland and Washington D.C. border. Historical USTs, USTs, and OCPCASE databases all identified this site in their listings. Of the four Historical UST's identified, three are listed as currently in use (5,000-gallon gasoline tank; 2,000-gallon diesel tank; 10,000-gallon heating oil tank), and one 550-gallon heating oil tank has been removed. The site is listed as also having a total of eight USTs. Three tanks are in use, one 5,000-gallon gasoline tank, one 10,000-gallon heating oil tank, and one 2,500-gallon diesel tank. These three tanks may be the same tanks listed in the Historical UST database. Four tanks are permanently out of use, one 550-gallon and one 10,000-gallon heating oil tank, one 2,000-gallon diesel tank, and one 5,000-gallon gasoline tank. An additional UST is listed at the site with an unknown status. Finally, the site also is listed as an OCPCASE for a tank removal/abandonment for motor/lube oil. (Site #23)

This preliminary review of environmental records indicates several UST's located in the vicinity of the Study Area. Although several sites have been identified, the area of disturbance for Alternatives 2 and 3 remain largely within the existing right-of-way, and therefore anticipated impacts are minor.



ENVIRONMENTAL RESOURCES

Further investigation as to the exact locations and status of these tanks may be required for any construction of the recommended alternative outside of the existing right-of-way.

PHYSICAL ENVIRONMENT

AIR QUALITY

An air quality analysis was not deemed necessary for this planning study. There will be no expansion of capacity to the roadway. The existing bikeway will be improved and/or shifted. Any increase in use of the bikeway due to the proposed improvements would not lead to any impairment of air quality.

NOISE

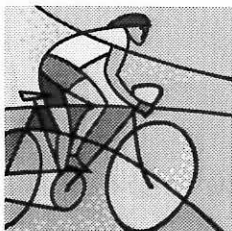
A noise analysis was not deemed necessary for this planning study. The proposed land use will not differ from the existing land use and activities along the bikeway will remain the same. Therefore, the project should not increase noise levels along the corridor.

CULTURAL & HISTORIC RESOURCES

Several cultural and historic resources are located within the Study Area. Coordination with Maryland Historical Trust (MHT) has revealed that numerous archeological sites exist within the general vicinity of the Study Area. Additionally, research on MHT National-Register listings available online, and coordination with the MHT, also identified the following architectural resources adjacent to MacArthur Boulevard, which are identified on **Figures II-7 through II-18**:

George Washington Memorial Parkway (Clara Barton Parkway) – The George Washington Memorial Parkway (GWMP), a 7,200-acre national park, preserves the natural scenery along the Potomac River. The Clara Barton Parkway portion of the road parallels MacArthur Boulevard for the length of the Study Area. The only instance that the Parkway may be impacted is at an intersection with MacArthur Boulevard. Improvements to the bikeway may temporarily disrupt traffic at this location.

Chesapeake and Ohio Canal National Historic Park – The National Register-listed Chesapeake and Ohio Canal operated from 1828-1924 as a transportation route, primarily hauling coal from western Maryland to the port of Georgetown in Washington, D.C. It borders the Potomac River from Georgetown to Cumberland. It also parallels MacArthur Boulevard for the length of the Study Area. No disruptions to the Canal would occur during construction of the bikeway improvements.



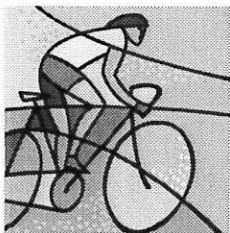
ENVIRONMENTAL RESOURCES

Cabin John Aqueduct (Cabin John Bridge/Union Arch) – This one lane National Register-listed bridge carries MacArthur Boulevard over Cabin John Creek and Cabin John Parkway. Improvements to the bridge itself have recently occurred, and there will be no further changes to the existing bridge crossing.

Glen Echo Park Historic District – The National Register-listed Glen Echo Park Historic District is located south of MacArthur Boulevard, north of the Clara Barton Parkway, and east of Oxford Road. Within this historic district are three additional historic resources, all listed on the National Register of Historic Places. The *Carousel* at Glen Echo Park is significant for its art and entertainment during the period of 1900-1924. The *Chautauqua Tower* at Glen Echo Park is a late Victorian architectural style structure, significant during the period between 1875-1899. Today it functions as a Museum in the Park. The *Clara Barton House*, also located within Glen Echo Park, today functions as a museum in the park. The house served as Clara Barton's home, headquarters for the American Red Cross, and a warehouse for disaster relief supplies. Here she organized relief efforts for victims of natural disasters and war. The historic district will not be affected by the proposed bikeway improvements.

Old Anglers Inn – The Old Anglers Inn restaurant is located at the far western end of the Study Area. This site has been previously surveyed but is not a National Register-listed building. However, it is listed as a historic resource in the Potomac Subregion Master Plan. Proposed bikeway improvements will exist south of this property and therefore no impacts are anticipated.

Washington Aqueduct – The Washington Aqueduct was constructed by the Army Corps of Engineers (ACOE) in the 1800's and is a National Register-listed site. It is a nine-foot diameter masonry aqueduct running under what is now MacArthur Boulevard. During the 1920's, a nine-foot diameter, unreinforced concrete, horseshoe shaped aqueduct was constructed, parallel to the first aqueduct, approximately 30 feet away. As discussed in Section I: Purpose and Need of this document, the ACOE places restrictions on construction and weight over this aqueduct, therefore no impacts will result from these bikeway improvements.



ENVIRONMENTAL RESOURCES

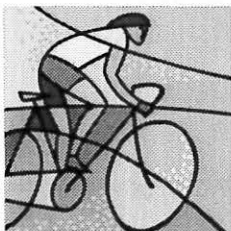
Benfield's Service Garage – Benfield's Garage, located at 6124 MacArthur Boulevard, is a previously surveyed property for the MHT. It is now a part of the Wild Bird Center gift shop, and appears to no longer function as a garage. The project will not extend outside of the roadway right-of-way and onto this property. Bikeway improvements will only enhance the aesthetics in front of this property.

Clara Barton School – What is now the Clara Barton Community Center was originally the Clara Barton School. It was built in 1928 on the corner of First Street and Conduit Road. Today, these roads are known as 75th Street and MacArthur Boulevard. In 1954, Clara Barton was the first school in Montgomery County to integrate. To save money, Montgomery County closed the Clara Barton School in 1974. Various agencies have occupied the building ever since. The Montgomery County Department of Recreation has occupied the building for since 1992. The department currently shares use of the space with the Clara Barton School for Children and Bethesda Youth Service. Again, The project will not extend outside of the roadway right-of-way and onto this property. Bikeway improvements will only enhance the aesthetics in front of this property.

In addition to these listed and mapped sites, the MHT also lists seven additional surveyed or National Register-listed sites, which are not adjacent to MacArthur Boulevard. These include the Copley Houses, the William Hill Houses and Store, the Carderock Historic District which houses the David W. Taylor Model Basin and the Instrument House, the Cabin John Hotel Gas House, the Reading House, Stonehaven, and the Cabin John right-of-way (or Brookmont Trolley right-of-way).

The Maryland State Highway Administration (SHA) has designated scenic byways throughout the state. The C & O Canal Route Scenic Byway stretches 106 miles. Both the Clara Barton Parkway and MacArthur Boulevard are roadway segments that are included as part of the C & O Canal Byway (Potomac Subregion Master Plan, 2001). Although MacArthur Boulevard is designated as a Scenic Byway, improvements to the bikeway will only enhance the aesthetics surrounding the road.

Although these significant historic resources all fall within the vicinity of the proposed Study Area, impacts as a result of bikeway improvements are not anticipated to have any negative effect upon them. The majority of improvements will all occur within the existing right-of-way limits for MacArthur Boulevard, and there should be no negative changes to the viewshed from any of these resources. However, if any federal or state funding is used for this project, it will be subject to review under Section 106 of the National Historic Preservation Act of 1966. Further coordination with the MHT would be required for both archeological and architectural resources. Refer to the agency letter in **Appendix A** for more detailed information on future requirements.



SOCIOECONOMICS

Socioeconomic conditions in the vicinity of the Study Area have been assessed to identify potential impacts associated with the proposed bikeway changes and improvements. Federal and local data, including local zoning and land use information have been reviewed.

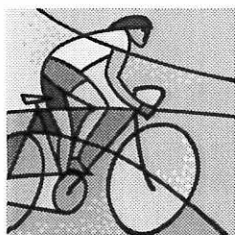
LAND USE & ZONING

The Land Use and Zoning Plan in the Potomac Subregion Master Plan has set principles designed to preserve the subregion's green and rural character, while creating a pedestrian and bicycle-friendly environment. For example, one principle is to provide facilities that promote transit use, walking, and biking as alternatives to car trips. Another is to create pedestrian and bike links to surrounding streets and neighborhoods to encourage community access. Land use, although not specifically identified along MacArthur Boulevard for that portion that falls within this Master Plan area, is residential and park land. The Bethesda-Chevy Chase Master Plan does, however, identify the areas along MacArthur Boulevard. The entire Project Study Area is largely residential, with just a few small business areas scattered between neighborhoods. Zoning is categorized as R-200 – Single-Family Detached, R-90 and R-60 – Single Family, and R-30 – Multi-Family, Low Rise.

REGIONAL ACCESS, EMPLOYMENT CENTERS, AND COMMUNITY FACILITIES

Employment centers and community facilities within the socioeconomic Study Area consist of small shopping plazas with local grocery stores and cafés, a veterinary hospital, bicycle shops, schools and a children's museum, and other small businesses. The proposed project provides improvements to an already existing bikeway along MacArthur Boulevard. These improvements will not provide any more or any less access to neighborhoods, parks, shops, and other locations along the roadway. It will however provide for greater safety in reaching many of these locations. This may then promote greater use and desire to use the bikeway to access such places.

The Study Area has ten neighborhood communities adjacent to MacArthur Boulevard. Each community has an active association. On the north side of MacArthur Boulevard, there is the River Falls Community Center Association, Mazza Wood Homeowners Association, Palisades Citizens Association, Bannockburn Civic Association, Tulip Hills Citizens Association, Mohican Hills Citizens Association, Glen Echo Heights Citizens Association, and the Bon Air Heights Civic Association. The Cabin John Citizens Association serves residents on both the north and south sides of MacArthur Boulevard while the Civic League of Brookmont represents residents on the south side of MacArthur Boulevard.

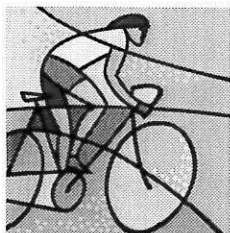


DEMOGRAPHICS

A demographic profile for the Study Area was assembled using 2000 U.S. Census Bureau data from four Census Tracts: Census Tract 706008 (Block Groups 2 and 3), Census Tract 705800 (Block Groups 1, 2, and 3), Census Tract 705902 (Block Groups 1 and 2), and Census Tract 705702 (Block Groups 2 and 3). Each of these Census Block Groups border a portion of MacArthur Boulevard along the Study Area. This data provides information on the existing conditions within the Study Area. The size of the population, general income, and housing information may correlate to the community associations, local and regional access to the surrounding areas, and the needs and desires of those in the area for such improvement projects.

Demographic data (population, income, and housing) reported for Montgomery County in the 2000 U.S. Census were used for comparison against the Block Group data for the Study Area. This provides more details for the immediate vicinity of the Study Area. Data for Montgomery County and the Census Block Groups are presented in **Tables III-3 through III-6**.

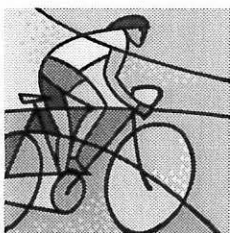
Census Block Group data indicates that the greatest percentage of individuals residing in Montgomery County within the Study Area are non-minorities between the ages of 45 and 64. The median annual household income in the Study Area ranges from approximately \$100,000 to \$200,000, much higher than the median income for the entire County at \$71,551. Most owner-occupied housing is valued at greater than \$300,000 and in some locations greater than \$500,000, also higher than the County average. The Block Group data indicate that the Study Area is situated in a higher-income portion of the County.



ENVIRONMENTAL RESOURCES

Table III-3
Demographic Data for Montgomery County and Census Tract 706008
Block Groups 2 and 3

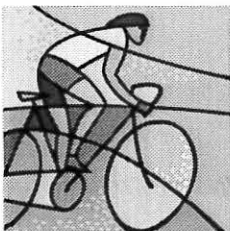
| | Montgomery County | Percent of Total | Block Group 2 | Percent of Total | Block Group 3 | Percent of Total |
|--|----------------------|---------------------|------------------|---------------------|------------------|---------------------|
| POPULATION | | | | | | |
| Total Population | 873,341 | 100 | 2,902 | 100 | 933 | 100 |
| AGE | | | | | | |
| 0-19 | 178,040 | 22 | 939 | 32 | 327 | 35 |
| 20-44 | 325,959 | 40 | 652 | 22 | 188 | 20 |
| 45-64 | 211,012 | 26 | 1,051 | 36 | 366 | 39 |
| 65+ | 98,157 | 12 | 260 | 9 | 52 | 6 |
| RACE | | | | | | |
| White | 565,719 | 67 | 2,445 | 84 | 737 | 79 |
| Black/African American | 132,256 | 16 | 62 | 2 | 24 | 3 |
| Asian/Pacific Islander | 99,063 | 12 | 336 | 12 | 146 | 16 |
| Other | 43,642 | 5 | 59 | 2 | 26 | 3 |
| HOUSING | | | | | | |
| Occupied Housing Units | 324,565 | 100 | 958 | 100 | 270 | 100 |
| Owner-Occupied Units | 223,017 | 69 | 914 | 95 | 259 | 96 |
| Renter-Occupied Units | 101,548 | 31 | 44 | 5 | 11 | 4 |
| VALUE OF SPECIFIED OWNER-OCCUPIED UNITS | | | | | | |
| <\$99,999 | 7,280 | 4 | 20 | 2 | 0 | 0 |
| \$100,000 - \$199,999 | 75,757 | 40 | 35 | 4 | 0 | 0 |
| \$200,000 - \$299,999 | 50,872 | 27 | 7 | 1 | 8 | 3 |
| \$300,000 - \$499,999 | 39,668 | 21 | 159 | 19 | 9 | 3 |
| >\$500,000 | 17,974 | 9 | 607 | 73 | 251 | 94 |
| INCOME | | | | | | |
| # OF HOUSEHOLDS | 324,940 | 100 | 932 | 100 | 249 | 100 |
| < \$24,999 | 38,411 | 12 | 14 | 2 | 0 | 0 |
| \$25,000 - \$49,000 | 65,654 | 20 | 93 | 10 | 0 | 0 |
| \$50,000 - \$74,000 | 65,955 | 20 | 85 | 9 | 0 | 0 |
| \$75,000 - \$99,999 | 49,573 | 15 | 46 | 5 | 21 | 8 |
| \$100,000 - \$149,000 | 56,565 | 17 | 153 | 16 | 42 | 17 |
| \$150,000 - \$199,999 | 24,199 | 7 | 117 | 13 | 32 | 13 |
| > \$200,000 | 24,583 | 8 | 424 | 45 | 154 | 62 |
| MEDIAN HOUSEHOLD INCOME | \$71,551 | | \$183,074 | | \$200,001 | |



ENVIRONMENTAL RESOURCES

Table III-4
Demographic Data for Census Tract 705800
Block Groups 1, 2, and 3

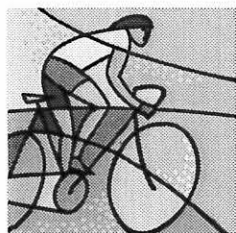
| | Block Group 1 | Percent of Total | Block Group 2 | Percent of Total | Block Group 3 | Percent of Total |
|---|------------------|---------------------|------------------|---------------------|------------------|---------------------|
| <i>POPULATION</i> | | | | | | |
| Total Population | 2,334 | 100 | 2,530 | 100 | 914 | 100 |
| <i>AGE</i> | | | | | | |
| 0-19 | 671 | 29 | 684 | 27 | 244 | 27 |
| 20-44 | 616 | 26 | 573 | 23 | 327 | 36 |
| 45-64 | 828 | 35 | 818 | 32 | 254 | 28 |
| 65+ | 219 | 9 | 455 | 18 | 89 | 10 |
| <i>RACE</i> | | | | | | |
| White | 1,995 | 85 | 2,328 | 92 | 861 | 94 |
| Black/African American | 74 | 3 | 44 | 2 | 15 | 2 |
| Asian/Pacific Islander | 207 | 9 | 101 | 4 | 21 | 2 |
| Other | 58 | 2 | 57 | 2 | 17 | 2 |
| <i>HOUSING</i> | | | | | | |
| Occupied Housing Units | 861 | 100 | 934 | 100 | 351 | 100 |
| Owner-Occupied Units | 765 | 89 | 861 | 92 | 290 | 83 |
| Renter-Occupied Units | 96 | 11 | 73 | 8 | 61 | 17 |
| <i>VALUE OF SPECIFIED OWNER-OCCUPIED UNITS</i> | | | | | | |
| <\$99,999 | 0 | 0 | 0 | 0 | 0 | 0 |
| \$100,000 - \$199,999 | 58 | 9 | 19 | 2 | 6 | 2 |
| \$200,000 - \$299,999 | 122 | 19 | 82 | 10 | 40 | 15 |
| \$300,000 - \$499,999 | 331 | 50 | 356 | 44 | 138 | 53 |
| >\$500,000 | 147 | 22 | 358 | 44 | 78 | 30 |
| <i>INCOME</i> | | | | | | |
| # OF HOUSEHOLDS | 890 | 100 | 914 | 100 | 337 | 100 |
| < \$24,999 | 62 | 7 | 22 | 2 | 2 | 1 |
| \$25,000 - \$49,000 | 99 | 11 | 43 | 5 | 27 | 8 |
| \$50,000 - \$74,000 | 125 | 14 | 141 | 15 | 49 | 15 |
| \$75,000 - \$99,999 | 79 | 9 | 126 | 14 | 26 | 8 |
| \$100,000 - \$149,000 | 194 | 22 | 135 | 15 | 100 | 30 |
| \$150,000 - \$199,999 | 164 | 18 | 161 | 18 | 69 | 20 |
| > \$200,000 | 167 | 19 | 286 | 31 | 64 | 19 |
| <i>MEDIAN HOUSEHOLD INCOME</i> | \$113,714 | | \$145,121 | | \$124,253 | |



ENVIRONMENTAL RESOURCES

Table III-5
Demographic Data for Census Tract 705902
Block Groups 1 and 2

| | Block Group 1 | Percent of Total | Block Group 2 | Percent of Total |
|--|---------------|------------------|---------------|------------------|
| POPULATION | | | | |
| Total Population | 1,691 | 100 | 1,075 | 100 |
| AGE | | | | |
| 0-19 | 465 | 27 | 289 | 27 |
| 20-44 | 402 | 24 | 225 | 21 |
| 45-64 | 532 | 31 | 354 | 33 |
| 65+ | 292 | 17 | 207 | 19 |
| RACE | | | | |
| White | 1,450 | 86 | 999 | 93 |
| Black/African American | 57 | 3 | 9 | 1 |
| Asian/Pacific Islander | 136 | 8 | 47 | 4 |
| Other | 48 | 3 | 20 | 2 |
| HOUSING | | | | |
| Occupied Housing Units | 618 | 100 | 422 | 100 |
| Owner-Occupied Units | 557 | 90 | 393 | 93 |
| Renter-Occupied Units | 61 | 10 | 29 | 7 |
| VALUE OF SPECIFIED OWNER-OCCUPIED UNITS | | | | |
| <\$99,999 | 11 | 2 | 0 | 0 |
| \$100,000 - \$199,999 | 25 | 5 | 0 | 0 |
| \$200,000 - \$299,999 | 54 | 11 | 88 | 22 |
| \$300,000 - \$499,999 | 239 | 48 | 207 | 52 |
| >\$500,000 | 166 | 34 | 101 | 26 |
| INCOME | | | | |
| # OF HOUSEHOLDS | 581 | 100 | 438 | 100 |
| < \$24,999 | 23 | 4 | 24 | 5 |
| \$25,000 - \$49,000 | 28 | 5 | 22 | 5 |
| \$50,000 - \$74,000 | 87 | 15 | 33 | 8 |
| \$75,000 - \$99,999 | 78 | 13 | 74 | 17 |
| \$100,000 - \$149,000 | 103 | 18 | 92 | 21 |
| \$150,000 - \$199,999 | 108 | 19 | 83 | 19 |
| > \$200,000 | 154 | 27 | 110 | 25 |
| MEDIAN HOUSEHOLD INCOME | \$135,429 | | \$136,830 | |



ENVIRONMENTAL RESOURCES

Table III-6
Demographic Data for Census Tract 705702
Block Groups 2 and 3

| | Block Group 2 | Percent of Total | Block Group 3 | Percent of Total |
|---|---------------|------------------|---------------|------------------|
| <i>POPULATION</i> | | | | |
| Total Population | 2,042 | 100 | 1,433 | 100 |
| <i>AGE</i> | | | | |
| 0-19 | 412 | 20 | 409 | 29 |
| 20-44 | 407 | 20 | 280 | 20 |
| 45-64 | 571 | 28 | 489 | 34 |
| 65+ | 652 | 32 | 255 | 18 |
| <i>RACE</i> | | | | |
| White | 1,898 | 93 | 1,376 | 96 |
| Black/African American | 17 | 1 | 11 | 1 |
| Asian/Pacific Islander | 82 | 4 | 27 | 2 |
| Other | 45 | 2 | 19 | 1 |
| <i>HOUSING</i> | | | | |
| Occupied Housing Units | 982 | 100 | 524 | 100 |
| Owner-Occupied Units | 764 | 78 | 503 | 96 |
| Renter-Occupied Units | 218 | 22 | 21 | 4 |
| <i>VALUE OF SPECIFIED OWNER-OCCUPIED UNITS</i> | | | | |
| <\$99,999 | 0 | 0 | 0 | 0 |
| \$100,000 - \$199,999 | 16 | 4 | 5 | 1 |
| \$200,000 - \$299,999 | 37 | 10 | 0 | 0 |
| \$300,000 - \$499,999 | 78 | 21 | 31 | 7 |
| >\$500,000 | 235 | 64 | 426 | 92 |
| <i>INCOME</i> | | | | |
| # OF HOUSEHOLDS | 941 | 100 | 549 | 100 |
| < \$24,999 | 48 | 5 | 5 | 1 |
| \$25,000 - \$49,000 | 96 | 10 | 39 | 7 |
| \$50,000 - \$74,000 | 181 | 19 | 32 | 6 |
| \$75,000 - \$99,999 | 136 | 14 | 25 | 5 |
| \$100,000 - \$149,000 | 170 | 18 | 103 | 19 |
| \$150,000 - \$199,999 | 94 | 10 | 74 | 13 |
| > \$200,000 | 189 | 20 | 271 | 49 |
| MEDIAN HOUSEHOLD INCOME | \$96,632 | | \$198,091 | |



AMERICANS WITH DISABILITIES ACT

Title II of the Americans with Disabilities Act (ADA) of 1990 established accessibility requirements for both new and existing transportation facilities operated by units of state and local government. The final guidelines contained requirements for publicly operated transportation facilities that ensure that such facilities are readily accessible to and usable by individuals with disabilities in terms of architecture and design, transportation, and communication. The recommended bikeway improvements will strive for compliance with the standards set forth under ADA, Accessibility Guidelines for Buildings and Facilities, and its amendments wherever possible. However, the eastern portion of the existing roadway and bikeway are currently steeper than 5% and proposed improvements to the bikeway will remain at the same grades as the existing roadway. The Proposed improvements to the bikeway do meet the American Association of State Highway and Transportation Officials (AASHTO) Guide for the development of Bicycle Facilities.

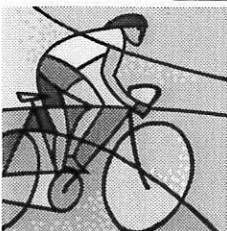
RIGHT-OF-WAY AND LAND ACQUISITION

Although the majority of the project will remain within the existing right-of-way, due to engineering constraints and natural land features, there will be some locations in which the limit of disturbance for the project will fall outside of the roadway right-of-way. The No-Build Alternative would not require additional right-of-way or land acquisitions, however, Alternative 2 will require approximately 0.76 acres of additional right-of-way, and Alternative 3 will require approximately 1.02 acres.

Alternative 2 impacts eight properties adjacent to MacArthur Boulevard. Alternative 3 impacts 33 properties adjacent to MacArthur Boulevard. The following tables (**Table III-7 & III-8**) provide the parcel number, owner name, Liber, and Folio for each of the impacted properties. **Figures II-7 through II-18** include the parcel numbers, which identify these impacted properties as well.

**Table III-7
Alternative 2 Property Impacts**

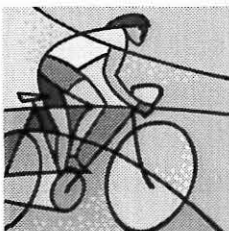
| Parcel # | Owner | Liber | Folio |
|----------|------------------------------|-------|-------|
| 3 | CASPER, BARBARA R JR & | 16918 | 514 |
| P786 | SCHAUFELD, JENNIFER S | 17249 | 279 |
| P781 | SHANLEY, CHRISTOPHER R ETAL | 16437 | 430 |
| P130 | UNITED STATES AMERICA | 0 | 0 |
| P130 | UNITED STATES AMERICA | 0 | 0 |
| B | CARLTON PL HMWNERS ASSOC INC | 8231 | 383 |
| A | CARLTON PL HMWNERS ASSOC INC | 8231 | 383 |
| PT 15 | UNITED STATES OF AMERICA | | |



ENVIRONMENTAL RESOURCES

**Table III-8
Alternative 3 Property Impacts**

| Parcel # | Owner | Liber | Folio |
|----------|------------------------------|-------|-------|
| P780 | CASPER, BARBARA R JR & | 16918 | 514 |
| P786 | SCHAUFELD, JENNIFER S | 17249 | 279 |
| P781 | SHANLEY, CHRISTOPHER R ETAL | 16437 | 430 |
| P130 | UNITED STATES AMERICA | 0 | 0 |
| P130 | UNITED STATES AMERICA | 0 | 0 |
| B | CARLTON PL HMWNERS ASSOC INC | 8231 | 383 |
| A | CARLTON PL HMWNERS ASSOC INC | 8231 | 383 |
| P15 | UNITED STATES OF AMERICA | | |
| P784 | WAKSMUNSKI, ALICE W TRUSTEE | 12838 | 457 |
| P861 | GOSNELL, GREGORY F & C H | 7873 | 549 |
| 000 | LEAR, LINDA J | 15494 | 636 |
| | TOZZI, JAMES E & P K | 9089 | 39 |
| P917 | TAOIST CENTER | 6632 | 537 |
| P917 | TAOIST CENTER | 6632 | 537 |
| P959 | TAUSCHER, WILLIAM Y | 18327 | 21 |
| 000 | DESPARD, ALICE H & | 16041 | 112 |
| 000 | DESPARD, ALICE H & | 16041 | 112 |
| P395 | MARYLAND NATIONAL CAPITOL | 562 | 354 |
| P390 | MONTGOMERY COUNTY | 9453 | 611 |
| | UNITED STATES OF AMERICA | | |
| | UNITED STATES OF AMERICA | | |
| 000 | BERGESEN, C A E ET AL TR | 13770 | 363 |
| P026 | PHILLIPS, LELAND H & S M | 13342 | 522 |
| P23 | UNITED STATES OF AMERICA | | |
| N606 | MOHICAN SWIMMING POOL | 2415 | 197 |
| PTA | UNITED STATES OF AMERICA | 4732 | 497 |
| PT9 | UNITED STATES OF AMERICA | 4732 | 502 |
| P644 | UNITED STATES OF AMERICA | 542 | 40 |
| P934 | SDBA INC | 19909 | 332 |
| P935 | OLSEN, MICHAEL J | 20609 | 717 |
| P956 | CONRAD, GERARD T | 20273 | 71 |
| P957 | UNITED STATES OF AMERICA | 1779 | 340 |
| P921 | UNITED STATES OF AMERICA | 0 | 0 |



SUMMARY

An Environmental Inventory, including both a cultural resources inventory and a socioeconomic analysis was performed for the MacArthur Boulevard Bikeway Phase I Facility Planning Study within the Study Area in Montgomery County, Maryland. The purpose of the inventory is to provide the DPWT with information on the existing conditions and environmentally sensitive areas that could be impacted by improvements to the existing bikeway. An analysis of these potential impacts also provides a better understanding of the alternatives proposed throughout this phase of the study.

Natural resources within the Study Area include steep slopes, wetlands, floodplain, and forests. Because this is a bikeway improvement project, measures can be taken to avoid to the greatest extent possible any sensitive natural resources. Minor shifts in the alignment during the planning phase and during final design will accomplish protection of many resources. Several resources of cultural and historical significance surround the Study Area as well. These resources can and be avoided throughout all stages of the project. This project will have no impact to socioeconomic resources within the Study Area, but will contribute to an improvement in the quality of life for those using the bikeway.

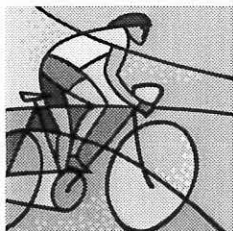
The following is a summary of environmental impacts that would result from the build alternatives:

Table III-9
Summary of Environmental Impacts

| Impact | Alternative 2 | Alternative 3 |
|------------------------------------|----------------------|-----------------------|
| Steep Slopes (acres) ¹ | 2.08 | 4.62 |
| Wetlands (acres) ² | 0.05 | 0.58 |
| Floodplain (acres) | 0.41 | 1.19 |
| Forest (acres) ³ | 0.70 of edge | 3.02 of edge |
| Specimen Trees | 4 | 3 |
| Parkland (acres) | 2.37 | 4.95 |
| Right-of-Way (acres) | 0.76 | 1.02 |
| Streams (linear feet) ⁴ | 8' of natural stream | 25' of natural stream |

¹ Steep slopes have been calculated from areas with slopes > or = 25% within the LOD.

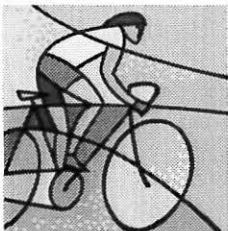
² A five-foot width was assumed for potential linear wetland areas.



ENVIRONMENTAL RESOURCES

³ Forest impacts have been calculated from the dripline of existing forest areas. These areas may just involve pruning or may not be impacted, but have been included as a worst-case scenario. Approximately 0.70 acre of the 3.79 acres of Alternative 2 is only edge or dripline impacts, and approximately 3.02 acres of the 7.32 acres of Alternative 3 is edge or dripline impacts.

⁴ Stream impacts have been assumed for the entire length of stream impacted, whether it is currently culverted or not. For Alternative 2 the entire impacted stream length is 433 LF and for Alternative 3, 1,679 LF. The actual impacts to streams will depend on whether construction activities intrude upon the piped areas. Alternative 2 has only 8 linear feet of impact to natural streams (not culverted) and Alternative 3 has approximately 25 linear feet of impact to natural streams.



SECTION IV **PUBLIC PARTICIPATION**

Two public meetings were held for the MacArthur Boulevard Bikeway Improvement project, the first one on January 22, 2003 and the second one on April 23, 2003. The purpose of the first meeting was to introduce to the MacArthur Boulevard Communities the goals of the study, present the initial stage of Facility Planning, and obtain input from property owners, residents, Community Associations, and business owners. The purpose of the second public meeting was to present the alternatives for improvements to the MacArthur Boulevard Bikeway and get the public's feedback on those alternatives.

FIRST PUBLIC MEETING

The first Public Meeting for the MacArthur Boulevard Bikeway Phase I Facility Planning Study was held at Bannockburn Elementary School on Wednesday, January 22, 2003 from 7-9pm. Approximately 40 citizens attended this meeting. Most of those in attendance live along MacArthur Boulevard or in the neighborhoods that use MacArthur Boulevard as their primary access. Many of the attendees were bicyclists who use MacArthur Boulevard as their primary bike route. No elected officials attended. The format of the meeting was an open-house workshop with a short presentation describing the Study Area, Project Development Process, Project History, Master Plan Visions, Project Scope, and Project Schedule. The community workshop portion of the meeting allowed participants to visit with staff one-on-one at stations that were set up for each community.

Comments were received during the meeting as well through comment cards following the meeting. In general, the comments focused on safety issues, bikeway improvement issues and general planning process issues. The following issues are based on the informal comments and ideas that were offered to various staff present at the meeting:

- The bicyclists and citizens living along MacArthur Boulevard expressed concern for the immediate need for remedies along the existing bikeway to slow traffic and provide bicyclists with safer riding conditions.
- The majority of participants expressed the need to have a physical separation between the bikeway and the roadway and to have designated bike lanes along both directions of MacArthur Boulevard.



PUBLIC PARTICIPATION

- Several intersections were identified by many participants as dangerous to both bikers and motorists including the intersections of MacArthur Boulevard and Clara Barton Parkway, Ericsson Road (exiting and entering Clara Barton Parkway), and Seven Locks Road.
- A few participants indicated that the existing signing of the bikeway was inadequate to keep motorists from driving and parking on the bikeway.

The following public meeting materials are included at the end of this section:

- Brochure
- PowerPoint presentation
- Summary of citizen comments and DPWT response.

SECOND PUBLIC MEETING

The second Public Meeting for the MacArthur Boulevard Bikeway Improvement Phase I Facility Planning Study, held at Bannockburn Elementary School on April 23, 2003 from 7-9pm, focused on the results of the Alternatives developed for the MacArthur Boulevard bikeway improvements. Approximately 25 citizens from the adjacent neighborhoods attended this meeting. The format of the meeting was an open-house workshop where participants could visit with staff one-on-one at stations organized by community. In addition, the Study Team prepared a brochure for citizens to review during and after the meeting. Photo visualizations of existing conditions and the proposed build alternatives were prepared and presented at the public meeting for review by the citizens. The following stations, staffed by members of the Study Team and stocked with graphic displays, were set up around the room:

The informal set up provided the maximum interaction between interested citizens and the Study Team. Comments from citizens were also received after the meeting. The brochure and summary of citizen comments are included at the end of this section.

The majority of comments received were in favor of Alternative 3 as the best option for accommodating on-road bicyclists as well as pedestrians and recreational bicyclists on the separated shared use path.



PUBLIC PARTICIPATION

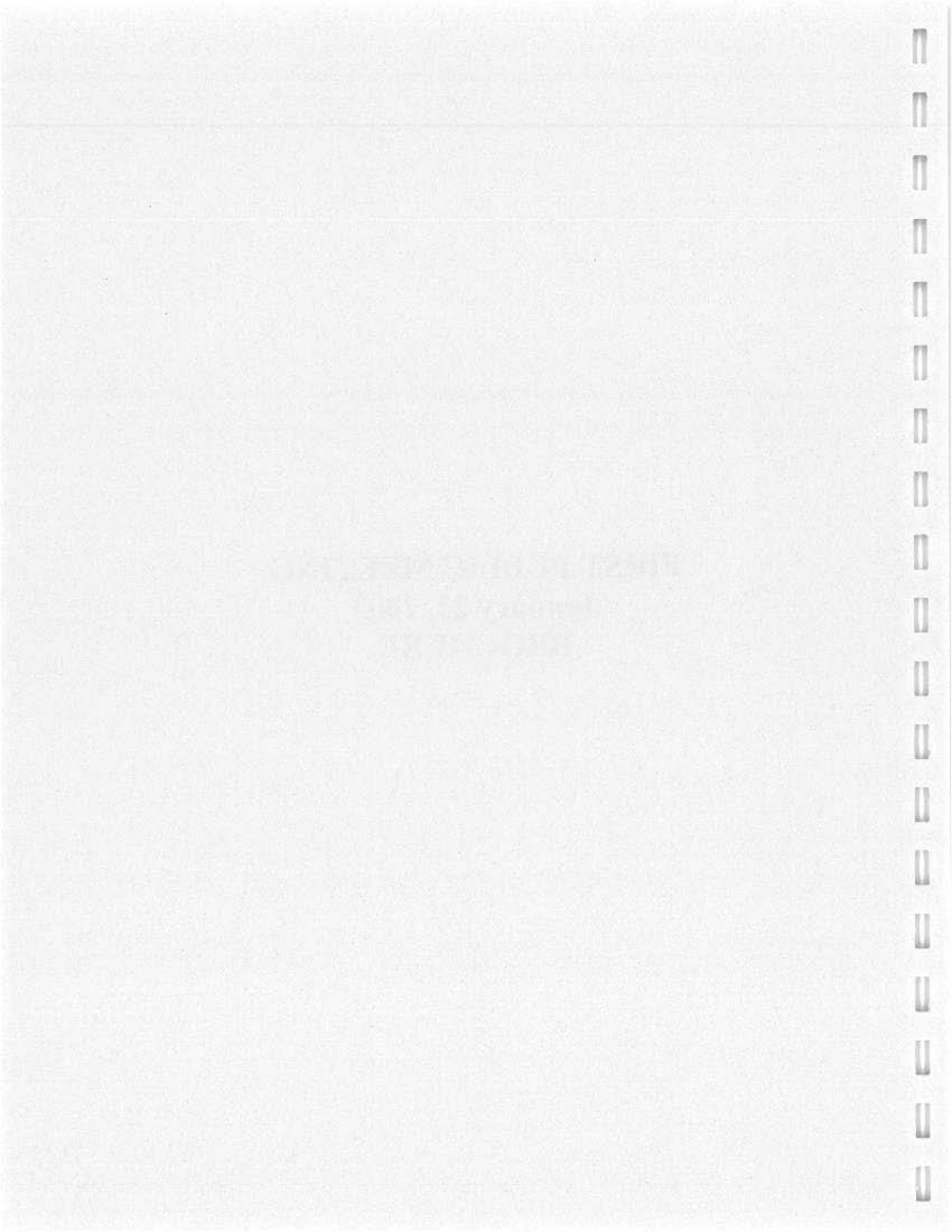
The following public meeting materials are included at the end of this section:

- Brochure
- Photo visualization
- Summary of citizen comments





FIRST PUBLIC MEETING
January 22, 2003
BROCHURE



MacArthur Boulevard

Bikeway Improvement Project

From the Old Angler's Inn to the District Line



Douglas M. Duncan
County Executive

Montgomery County
Department of Public Works and Transportation
Albert J. Genetti, Jr., Director
Edgar Gonzalez, Deputy Director for Transportation Policy

1st Public Meeting

January 22, 2003

7:00pm - 9:00pm

Bannockburn Elementary School

Welcome!

The purpose of tonight's meeting is to obtain community input on the Montgomery County Department of Public Works and Transportation's (DPWT) Phase I Facility Planning Study for the MacArthur Boulevard Bikeway Improvement Project. Tonight, the Study Team will present an overview of this study, listen to your feedback, and answer questions. First, you will hear a brief presentation that highlights the Study Area, master plan recommendations, the project purpose and need, guidelines that will be used to develop alternatives, and the next steps in DPWT's process. Then, you can participate in a community workshop where you will have the opportunity to give specific feedback on the bikeway in your neighborhood. The Study Team will use this feedback to develop bikeway alternatives that meet your needs. These alternatives will be presented at a public meeting in Spring 2003.

Thank you for your participation in helping to shape your transportation system.

Agenda

For Tonight's Meeting

- ➔ Welcome and Introductions
- ➔ Brief Presentation
- ➔ Community Workshop
- ➔ Wrap Up



THANK YOU FOR COMING!

As the County's Project Manager for the MacArthur Boulevard Bikeway Study, I am very interested in your comments. Shown in the flowchart to the right is the project development process. Throughout the process, DPWT provides opportunities for public input. The Study Team will consider this input along with its technical analysis in making its final recommendations to the County Council for proposed bikeway improvements. DPWT's recommendations will address both local and regional needs for the proposed transportation facility, opportunities and constraints, project impacts and mitigation, and the alternatives. Should you have questions about this project, please feel free to call me at 240-777-7226 or email me at yasamin.esmaili@co.mo.md.us.

Yasamin Esmaili
DPWT Project Manager

STUDY TEAM

MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

Bruce Johnston, Chief, Division of Engineering Services
Holger Serrano, Engineering Services Specialist
Yasamin Esmaili, Project Manager
Gail Tait-Nouri, County Bicycle Coordinator
Pat Bradley, Traffic Engineer
Bob Simpson, Director's Office

U.S. ARMY CORPS OF ENGINEERS

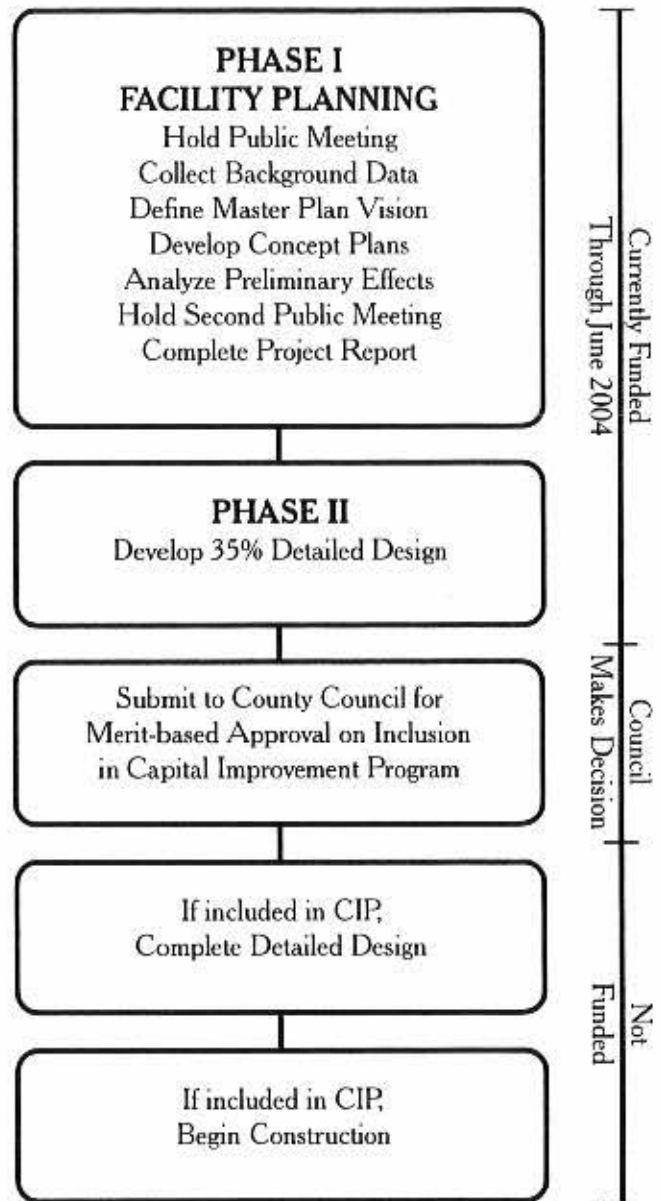
David MacGregor, Chief Engineer

MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Larry Cole, Transportation Planner
Chuck Kines, Bikeway Coordinator
Callum Murray, Community-Based Planner
John Carter, Community-Based Planner

URS CORPORATION

Janie Tiedeman, Project Manager
Valorie Hennigan, Project Planner



WE WANT YOUR FEEDBACK!

There are many ways in which you can give us your comments:

- ➔ Fill out the comment card provided and hand it in tonight or mail it within the next few days
- ➔ Send a letter or e-mail to the project manager at Montgomery County DPWT
- ➔ All comments or questions will be recorded during the meeting



FIRST PUBLIC MEETING
January 22, 2003
SUMMARY
CITIZEN COMMENTS

THE UNIVERSITY OF CHICAGO
LIBRARY
540 EAST 57TH STREET
CHICAGO, ILL. 60637

**MacArthur Boulevard
Public Meeting Comments
January 22, 2003**

| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|---------|---|---|
| General | Do we have usage numbers per day on bicyclists? | Yes from August 1997 at one location on MacArthur Boulevard. Bicycle and pedestrian counts will be conducted in the Spring. |
| General | Who owns the tracks next to Glen Echo? (Owner looking to sell it to the National Park System) | Will talk to town manager regarding who owns this property (possibly WMATA). Will also work with SHA. |
| General | What is the likelihood of obtaining funding? | Considered in future Facility Planning Phases. |
| General | What is the timeline of construction? | Determined in future Facility Planning Phases. |
| General | Sangamore road—why is there double guardrail-metal or wooden? Check out the walkway from Sanagmore to Little Falls. | Will consider in Alternative development. |
| General | How do you choose which site gets the safety divider? | Will consider in Alternative development. |
| General | Is AASHTO the minimum guidelines and do we have to follow them? | Yes |
| General | Is the County applying for enhancement funding—need 35% design required to go after funding? | Once 35% design is complete will investigate enhancement funding opportunities. |
| General | Are there priorities established already? | Safety and Bike movement. |
| General | Should include NPS as a partner. | Will contact NPS. |
| General | Glen Echo is currently closed. Can you address problems in this area now? | Some small-scale improvements are underway. Study will address short-term improvements in the alternatives development. |
| General | Is it illegal to park on bikeway? Are there legal remedies? | Yes it is illegal. Currently difficult to enforce. |
| General | Ignoring the pedestrian—must consider pedestrian in solution. | Pedestrians are considered in all phases of the study including alternatives development. |
| General | Integrate all short-term fixes, which are needed immediately. | Some small-scale improvements are underway. Study will address short-term improvements in the alternatives development. |
| General | Transportation cyclists are another entity to consider. We use bikes to do shopping in this and surrounding areas. | Will consider transportation cyclists throughout the study and alternatives development. |

**MacArthur Boulevard
Public Meeting Comments
January 22, 2003**

| TOPIC | COMMENT | STUDY TEAM RESPONSE |
|---------|--|--|
| General | Willing to donate portion of his property for road/bike improvements. | Thank you. The County would like to find out more about this. |
| General | Town of Glen Echo who owns right of way fronting town? Call Debbie Beers (Mayor) | Will contact Town of Glen Echo. |
| General | Used path many years-really enjoy using it for walking. | Thank you. |
| General | I am lucky enough to have the option of driving and parking downtown if I need to. I prefer to ride a bicycle to work for the exercise, to avoid the stress of sitting in a traffic jam, and to help contribute to our environment by taking a car off the road. I wish that Montgomery County and DC would work harder to consider the needs of cyclists and the benefits that encouraging commuting by bicycle could bring to ongoing traffic and pollution control efforts. | Thank you. |
| General | Young children and their parents ride on the bike path. | Thank you. |
| General | Many recreational bicyclists elect to use the C and O Towpath instead of the MacArthur Bike Path. | Thank you. |
| General | Commuter bicyclists and those riding at faster speeds use the roadway and not the existing path. | Thank you. |
| General | MacArthur Boulevard is heavily trafficked during rush hours by commuter vehicles. | Thank you. |
| General | It may be instructive to project the increased vehicular accidents, which might be expected if the vehicular road surface was narrowed by reducing or eliminating road shoulder area. | Thank you. |
| General | Signs saying, "share the road" have been vandalized. | Will forward comment to Division of Traffic and parking for further investigation. |

**MacArthur Boulevard
Public Meeting Comments
January 22, 2003**

| TOPIC | COMMENT | STUDY TEAM RESPONSE |
|---------|--|---|
| General | Multi-use path, by their nature, are not well suited for road-ready cyclists because the other traffic on the path tends to behave chaotically and unpredictably. Although serious cyclists often use multi-use paths such as the Capital Crescent and W&OD Trails, these paths have characteristics which distinguish them in a good way from the MacArthur Boulevard namely: 1) They do not run along an existing roadway, but provide an alternative route not easily available on a roadway. 2) They are wide and separated (visually and physically) from the roads. 3) They have few or no uncontrolled intersections with roadways or driveways. 4) There are many signs on each path telling all users their responsibilities. 5) They often have a dividing line down the middle to mark each travel lane. 6) They have excellent sight lines. 7) They rarely get covered with runoff in the way the MacArthur path does. | Will consider in Alternative development. |
| General | Concerned about the statement that the Master Plan stated, "preserving the semi-rural character of the roadway" – This one requirement might prevent any real improvements from being made to MacArthur Boulevard. | Study will balance alternatives development with master plan goals. |
| General | Don't understand spending funds to improve a facility that is not used. Especially from Persimmon Tree Road West. Plus by your own admission at the public meeting there is no statistical information about the number of users. | Bicycle and pedestrian counts will be conducted in the Spring. |
| General | Urgently request that more consideration be given to walkers and pedestrians. | Pedestrians are considered in all phases of the study including alternatives development. |
| General | Strongly support recommendation that both sides of the road accommodate bikes. | Will consider during alternatives development. |

**MacArthur Boulevard
Public Meeting Comments
January 22, 2003**

| TOPIC | COMMENT | STUDY TEAM RESPONSE |
|---------------|---|---|
| Aqueduct | Aqueduct – Can it be moved or relocate alignment on roadway on top to shift traffic and create more room for bikes? | Too expensive to completely relocate conduits. Will look at alternatives. |
| Safety Issues | Motorists harass cyclists who choose not to use the bike path. | Will consider in Alternative development. |
| Safety Issues | It is illegal and dangerous to ride a bike against traffic on the shoulder, and yet this is what the county is encouraging cyclists to do. | Thank you. |
| Safety Issues | Intersections with driveways and other roads are much more dangerous for cyclists on the path. Especially when traveling against traffic, because motorists tend not to look both ways when trying to get onto MacArthur Boulevard. | Thank you. |
| Safety Issues | Most dangerous spot is where Clara Barton exits onto MacArthur Boulevard and Circle at Glen Echo. | Will study safety issue as part of this study. |
| Safety Issues | Add a reduced speed sign as motorists exit Clara Barton Parkway so they know that speed transitions from 50 to 35 mph. Motorists don't know there is a stop sign at Clara Barton Exit and MacArthur Boulevard. Sign bikeway. | County will look into signage. |
| Safety Issues | The parkway (Intersection of Clara Barton at MacArthur Boulevard) entrance to MacArthur—3 way stop sign no one stops. | Will send comment to Division of Traffic and Parking for review. |
| Safety Issues | Cars-turning right existing Clara Barton Pkwy – biggest Issue is not making transition. Is there a speed limit? | Will consider in Alternative development. |
| Safety Issues | Entrance to Clara Barton Parkway – need better signage and crosswalk. | Will consider in Alternative development. |
| Safety Issues | Need signs to notify people during peak period that speeding won't help because of intersection of MacArthur Boulevard at Ericsson Road. | Will consider in Alternative development. |

**MacArthur Boulevard
Public Meeting Comments
January 22, 2003**

| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|---------------|--|---|
| Safety Issues | Two crossings over roadway plus 45 degree move and up hill to roadway (Ericsson Road) are difficult. | Will consider in Alternative development. |
| Safety Issues | Very awkward traffic pattern up hill to traffic light at Ericsson Road. | Will consider in Alternative development. |
| Safety Issues | 79 th Post Office—2 vehicles were seen driving on the bikeway. Also, have observed cars 79 th to Alpine Dog Clinic driving down bike path. | Will consider in Alternative development. |
| Safety Issues | Need fence on main curve at 79 th St. | Will consider in Alternative development. |
| Safety Issues | 79 th Street to Parkway is used as an I-495 Bypass during commuter hours when I-495 is congested. | Thank you. |
| Safety Issues | Double white lines do not keep cars off the bikeway. 7200 block of MacArthur is a hazard. | Will consider in Alternative development. |
| Safety Issues | There are white wands between travel lane and bike path—instead of preventing parking they (motorists) now consider it de facto parking area. | Will look into different methods of separation. |
| Safety Issues | MacArthur at Persimmon—In 1964 pressured County to fix pathways for baby carriages to walk. | Will consider in Alternative development. |
| Safety Issues | MacArthur Blvd Persimmon Tree – Eggert this is a problem area | Will be considered during alternatives development. |
| Safety Issues | Parallel parking at western end is a problem. | Will be considered during alternatives development. |
| Safety Issues | Bikers traveling west at Anglers on path often continue up MacArthur on shoulder against traffic...very dangerous. Traffic coming in and out of Old Anglers Inn and park parking lot make this curve very hazardous - speed is too high. | Will consider in Alternative development. |
| Safety Issues | Speed coming down the hill toward Old Anglers Inn for bicyclists will too fast to be on a bike path –15-20 mph. Okay to allow parking and provide walking path for those parking so they are not in the roadway. | Will be considered during alternatives development. |

**MacArthur Boulevard
Public Meeting Comments
January 22, 2003**

| TOPIC | COMMENT | STUDY TEAM RESPONSE |
|---------------|--|--|
| Safety Issues | Traffic from Parkway and Inn is a problem. Keep Inn patrons from parking on the path. | Will be considered during alternatives development. |
| Safety Issues | Bikes crossover MacArthur Boulevard to use bridge. Move light back to Wilson Lane. You can see light from Wilson Lane. | Will send comment to Division of Traffic and Parking for review. |
| Safety Issues | Drain grates on bridges are right under foot. Can they be moved? | Will send comment to Division of Traffic and Parking for review. |
| Safety Issues | Bike path should run between parking lot and woods rather than between lot and road at one lane bridge. | Will be considered during alternatives development. |
| Safety Issues | Where bikeway goes across Boulevard to the north side, some professional bikers do not ride on path, they ride on road. They also ride side by side sometime 3 astride. When you drive around bend at speed limit you either enter oncoming lane or hit cyclists. | Will be considered during alternatives development. |
| Safety Issues | The most common examples are where the roadway curves and vehicles "cut the corner" coming a few inches or several feet onto the bike path. There are a number of curves between Walhonding and Sangamore on MacArthur where (1) the bike path is at its narrowest on a curve, (2) leafy branches of trees obstruct the view around the curve, (3) a large percentage of vehicles "cut the corner". I almost suffered a front end (certain to have been fatal) collision last November on a beautiful Sunday afternoon when I came around one of these corners, riding on the bike path, to face a young driver speeding through the curves who was "cutting the corner" to stay at his desired near-raceway speed. But this driver was not exceptional. A large percentage of drivers encroach on the pathway through these curves. | Will look at signage as part of alternatives development. |

**MacArthur Boulevard
Public Meeting Comments
January 22, 2003**

| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|---------------|--|---|
| Safety Issues | At Seven Locks heavy left turn movement in morning hours, cars use bike lane as bypass. | Will be considered during alternatives development. |
| Safety Issues | Drivers cannot wait patiently for someone to turn left off of MacArthur, but instead cut into the bike path area. There are plastic posts to prevent this at Seven Locks Road, but nowhere else. Such posts are needed at ALL of the streets where a left turn is possible from MacArthur heading east. I have faced drivers who swerve into the path and zoom along, nearly hitting me as they return to the road. This has happened at several streets just south of Seven Locks Road. It is incredibly common at Wilson Lane. | Will be considered during alternatives development. |
| Safety Issues | The "double white line" does little or no good, especially without further signage and enforcement, and some physical separation of the main roadway from the bike path. Indeed, since the second white line that was added when the road was repaved appears to be painted further outside of the roadway than the previous single white line, this has actually widened the area that cars consider their own, and pushed cyclists further to the side. I would be welcome ANY proposed real separation -- a raised curb, more plastic posts like at Seven Locks and Goldsboro, or a grassy strip of even a foot of width, just please do something and don't wait for months or years before acting. My life and others depend on it. | Will be considered during alternatives development. |

**MacArthur Boulevard
Public Meeting Comments
January 22, 2003**

| TOPIC | COMMENT | STUDY TEAM RESPONSE |
|----------------------|--|---|
| Safety Issues | The posted speed limit along MacArthur is 30 MPH. The actual speed is much, much higher. Between Persimmon Tree and the Cabin John entrance to the Clara Barton Pkwy, the average is closer to 40 MPH. At least this stretch offers good visibility and so the speeding does not seem an extreme danger. Between Walhonding and Sangamore, the posted speed is still 30 MPH, but the actual speed of drivers is often well over 40 MPH (hence the extreme anger when stuck behind a cyclist peddling along at 20-22 MPH). Worse, the road has numerous twists, there is no shoulder on one side, and often limited visibility around the curves. | Will be considered during alternatives development. |
| Bikeway Improvements | Carderock, Glen Echo, Cabin John—no traffic controls, striping, or crosswalks. | Will be considered during alternatives development. |
| Bikeway Improvements | 2-way bike traffic on one side of road—opposing traffic needs option for west bound traffic on roadway | Will be considered during alternatives development. |
| Bikeway Improvements | Serious problem with shared use path going against traffic is more dangerous. | Will be considered during alternatives development. |
| Bikeway Improvements | Need space/lane westbound for bike lane. | Will be considered during alternatives development. |
| Bikeway Improvements | White wands do give some safety—need better posts. | Will be considered during alternatives development. |
| Bikeway Improvements | Does not want to see flex posts used on the bike path. They lean in different directions and are unsightly. | Will be considered during alternatives development. |
| Bikeway Improvements | Supplement double yellow pavement markings with “No Passing” signs. | Will be considered during alternatives development. |

**MacArthur Boulevard
Public Meeting Comments
January 22, 2003**

| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|----------------------|---|---|
| Bikeway Improvements | Stop bar...crosswalk on both legs double check | Will be considered during alternatives development. |
| Bikeway Improvements | I am not sure if there are any proposals for more stripping between the road and path. The material used for these strips is very slick when wet and cyclists have to keep well clear of them when the road is wet. | Will be considered during alternatives development. |
| Bikeway Improvements | Additional structures, such as pylons, would have the effect of narrowing the vehicular pavement surface by eliminating any vehicular shoulder area. | Will be considered during alternatives development. |
| Bikeway Improvements | Parking on path is a problem | Will be considered during alternatives development. |
| Bikeway Improvements | Barriers are insufficient between road and path. Path and road are too narrow. Consider trolley trestle as bike path. | Will be considered during alternatives development. |
| Bikeway Improvements | Add barriers | Will be considered during alternatives development. |
| Bikeway Improvements | No single-sided metal guard rails between trail and roadway | Will be considered during alternatives development. |
| Bikeway Improvements | Double whites lines dividing road from path are confusing. Recommend different marking/color. | Will be considered during alternatives development. |
| Bikeway Improvements | Remove pavement between roadway and path. | Will be considered during alternatives development. |
| Bikeway Improvements | Grass strip is invisible | Will be considered during alternatives development. |
| Bikeway Improvements | Separation by open space (as shown in the photo in your notice just above the project schedule) would probably eliminate the shoulder problems attendant to narrowing the vehicular road surface. | Will be considered during alternatives development. |
| Bikeway Improvements | Raise the area between road and bike path | Will be considered during alternatives development. |

**MacArthur Boulevard
Public Meeting Comments
January 22, 2003**

| TOPIC | COMMENT | STUDY TEAM RESPONSE |
|----------------------|---|--|
| Bikeway Improvements | Clean debris from Mohican Hills to combat problem at the source. | Will be considered during alternatives development. |
| Bikeway Improvements | Need police enforcement for motorists violating white lines. | Will be considered during alternatives development. |
| Bikeway Improvements | Elevate bike path to differentiate it from the roadway or place a barrier between path and road for clear distinction | Will be considered during alternatives development. |
| Bikeway Improvements | 15 year cyclist-does not believe that widening MacArthur Blvd roadway will improve situation for bicyclists; it will encourage autos to speed more | Will be considered during alternatives development. |
| Bikeway Improvements | Concern about property impacts-bikes closer to houses | Could be a possibility. |
| Bikeway Improvements | Path is not utilized enough for big expenditure | Bicycle and pedestrian counts will be conducted in the spring. |
| Bikeway Improvements | West of David Taylor-abandon path and improve road surface instead | Path is needed here will not be eliminated. |
| Bikeway Improvements | The only things that will make MacArthur Boulevard suitable for recreational bike traffic are: 1) Physical separation from MacArthur Boulevard-fence, guardrail where grass strip was paved over. 2) A dividing line painted down the center of the path to make path traffic more orderly. 3) Warning signs to drivers turning onto MacArthur Boulevard to look for path traffic both ways. 4) Signs or pavement markings warning path users to watch out for traffic crossing the path at intersections. 5) Some way to reduce the amount of debris that collects on the path, or a commitment to clean it up in a timely manner. 6) A clear warning at the western terminus. 7) Enforcement of the no parking rule on the path. 8) Signs telling path users to keep right and pass left. | Will be considered during alternatives development. |

**MacArthur Boulevard
Public Meeting Comments
January 22, 2003**


| TOPIC | COMMENT | STUDY TEAM RESPONSE |
|----------------------|---|---|
| Bikeway Improvements | Need a paved shoulder on both sides of MacArthur (NOT part of the path) where possible or slightly wider travel lanes to allow more room to pass cyclists. | Will be considered during alternatives development. |
| Bikeway Improvements | Signs along the road in both directions saying "bikes on road" or "share the Road". | Will be considered during alternatives development. |
| Bikeway Improvements | Concerned about rumble strips on MacArthur Road to keep motorists from leaving roadway. Rumble strips are not a pleasant or safe surface for cyclists to ride on and will further reduce amount of room for bike travel. | Will be considered during alternatives development. |
| Bikeway Improvements | Completely remove the parking lot at the one lane bridge. | Will be considered during alternatives development. |
| Bikeway Improvements | Should have a separate bike lane for both sides of the road. | Will be considered during alternatives development. |
| Bikeway Improvements | Suggest separate bikeway from roadway. | Will be considered during alternatives development. |
| Bikeway Improvements | If I choose to ride in the roadway I place myself at risk to automobiles. This I can accept (though I would appreciate common courtesy from the 10% or so of drivers who become aggressive and angry if slowed for even a few seconds by a cyclist). What I and other cyclists really need is an option that permits us to avoid this risk by affording us some reasonable separation from automobiles. | Will be considered during alternatives development. |


**MacArthur Boulevard
Public Meeting Comments
January 22, 2003**


| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|----------------------|---|---|
| Bikeway Improvements | The bike path is nearly impassable for long periods in the winter, as the car traffic on the roadway quickly pushes salt, sand/gravel etc off of the road after snow and road treatment, and this material sits on the bike path. This pushes me and other cyclists to either (1) risk our lives by riding in or at the very edge of the roadway, or (2) get into our cars. Montgomery County should have a standard policy of sending a street sweeper along the bike path within a few days after snow/ice that requires the roads to be treated. | Will be considered during alternatives development. |
| Bikeway Connections | Eastern end of MacArthur Blvd not good connection to Capital Crescent Trail. Consider connecting along gravel road or in close proximity to tunnel. | Will be considered during alternatives development. |

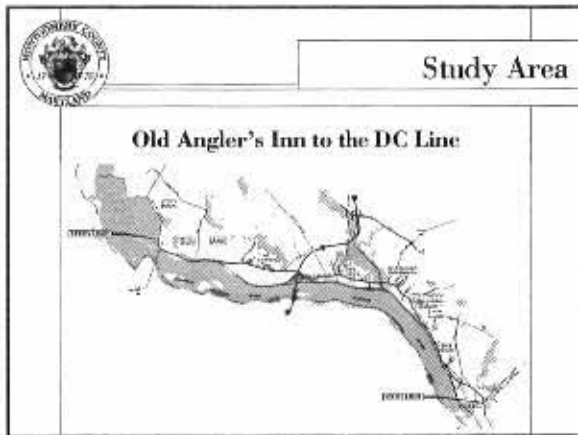
FIRST PUBLIC MEETING
January 22, 2003
POWERPOINT PRESENTATION

THE UNIVERSITY OF MICHIGAN
LIBRARY
ANN ARBOR, MICHIGAN

| | |
|--|--|
| <p align="center">MacArthur Boulevard Bikeway Improvement Project</p> <p align="center"><i>Public Information Meeting</i></p> | |
| <p align="right">January 22, 2003 7:00 PM to 9:00 PM</p> | |
|  | <p align="center">Montgomery County Department of Public Works and Transportation</p> |

| | |
|--|--|
|  | <p>Introductions</p> |
| <p>Study Team</p> | |
| <p>MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION Roger Serrano, Engineering Services Specialist Yasmin Usaidi, Project Manager Gail Tai-Nant, County Bicycle Coordinator Pat Rodley, Traffic Engineer Bob Simpson, Director's Office</p> | <p>MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION Larry Cole, Transportation Planner Chuck Kline, Bikeways Planner Callan Murry, Community-Based Planner John Carter, Community-Based Planner</p> |
| <p>U.S. ARMY CORPS OF ENGINEERS David MacGregor, Chief Engineer</p> | <p>URS Corporation Justin Trederman, Project Manager Valeria Hennigan, Project Planner</p> |

| | |
|---|-------------------------------------|
|  | <p>Presentation Overview</p> |
| <ul style="list-style-type: none"> * Study Area * Project Development Process * Project History * Master Plan Visions * Project Scope * AASHTO Guidelines * Project Schedule * Community Workshop | |





Project History

We are listening to your concerns!

- Community Meetings
- Field Meetings
- Letters
- Short Term Solutions
 - Installation of Flex Posts
 - Repaving and Patching
 - Striping



Master Plan Visions

1978 Master Plan of Bikeways

- * Bike Path along MacArthur Boulevard from DC line to Falls Road
- * Bike Path along Little Falls Park
- * Bike Lanes along Goldsboro Road
- * Bike Lanes along Wilson Lane
- * Bike Path along Seven Locks Road
- * Bike Path along Falls Road
- * Plan Update Scheduled for 2003-2004



Master Plan Visions

2002 Potomac Subregion Master Plan


- * MacArthur Boulevard
 - * Preserve Two-Lane Semi-Rural Roadway
 - * Designate Road as a Scenic Byway between Clara Barton Parkway and Falls Road
 - * Limit Curb Cuts and Consolidate Driveways wherever possible
- * Build Bike Paths Wherever Possible
- * Recommends New Bike Path along Persimmon Tree Road



Master Plan Visions


1990 Bethesda – Chevy Chase Master Plan


- * MacArthur Boulevard
 - * Maintain as Two-Lane Road without Widening to Urban Standards
 - * Retain One-Lane Bridge over Cabin John Parkway
- * Implement the 1978 Master Plan of Bikeways
- * Improve and Support Pedestrian Safety Along Arterials



Project Scope

Old Angler's Inn to the DC Line





Project Scope

Project Purpose and Need

- Improve Safety of Bikeway
- Serve Recreational and Commuter Bicyclists
- Increase Connectivity of Bikeway Network



Project Scope

Project Partners

- Maryland - National Capital Park and Planning Commission
- U.S. Army Corps of Engineers
- Environmental Resource Agencies
- The Public



Project Scope

Study Area



MacArthur Boulevard West of Maryland Avenue – Looking West



Project Scope

Study Area



MacArthur Boulevard at 78th Street



Project Scope

Study Area



MacArthur Boulevard at Winwood Place



MacArthur Boulevard at Maryland Avenue

Safety Considerations



Project Scope

Accident History

- * 10 Reported Accidents from 1995 to 2001 Involving Bicyclists and Pedestrians
- * All Resulted in Bicyclist / Pedestrian Injury
- * Half Occurred Between 80th and 75th Streets
- * Half "Failed to Give Full Time and Attention"



AASHTO Guidelines

Shared Use Path

- * Physically Separated by Open Space
- * 8 to 10 Feet Wide (Two-Way Travel)
- * Shared by Bicyclists, Pedestrians, Joggers, and Other Non-Motorized Users



AASHTO Guidelines

Bike Lane

- * Designated Portion of Roadway (Striping, Signing, and Marking)
- * 5 Feet Wide (One-Way Traffic)
- * Preferential or Exclusive Use by Bicyclists



AASHTO Guidelines

Shared Travel Lane

- No Designation on Roadway (No Striping or Pavement Marking)
- 3 to 5 Feet Wide (One-Way Traffic)
- Shared use with Motor Vehicles



Project Schedule

Phase I Facility Planning

- 1st Public Meeting – January 2003
- Alternatives Development – Winter 2003
- 2nd Public Meeting – Spring 2003
- Project Prospectus – Summer 2003



Community Workshop

**Remember...Public Involvement is an
Integral Part of this Project**

Station 1
River Falls
Crosey Falls
Marra Wood
Candrock
The Palisades

Station 3
Glen Echo
Town of Glen Echo
Barnetshurst

Station 2
Cable John

Station 4
Malcolm Hills
Glen Echo Heights
Toby Hills
Brookmont
Dun Air Heights



SECOND PUBLIC MEETING
April 23, 2003
BROCHURE



DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

Division of Engineering Services MacArthur Boulevard Bikeway Improvements

Public Meeting: April 23, 2003

Project Update 2

Spring 2003

PUBLIC MEETING

You are invited to a public meeting for the MacArthur Boulevard Bikeway Project. The meeting will be held at the Bannockburn Elementary School on Wednesday, April 23, 2003, at 7:00 p.m.

PURPOSE

To update you on our progress with the facility planning process for MacArthur Boulevard Bikeway Project and to obtain community input and preferences for this project.

BACKGROUND

As part of the approved Capital Improvements Program for fiscal years 2001-2006, the County Executive and the County Council have approved the undertaking of facility planning for the improvement of MacArthur Boulevard Bikeway from Old Anglers Inn near Stable Lane to the Montgomery County - District of Columbia (D.C.) line, a distance of approximately 7.3 miles.



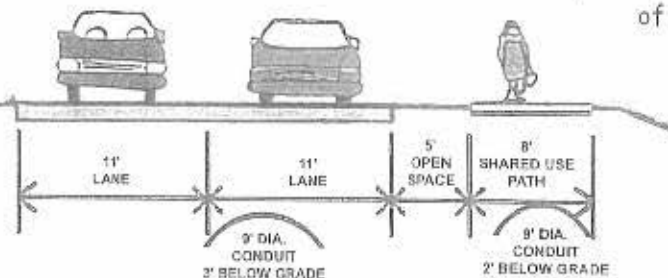
Class II: Bike Lane; designated by striping, signing, and pavement markings.

PREPARATION OF PRELIMINARY CONCEPTS

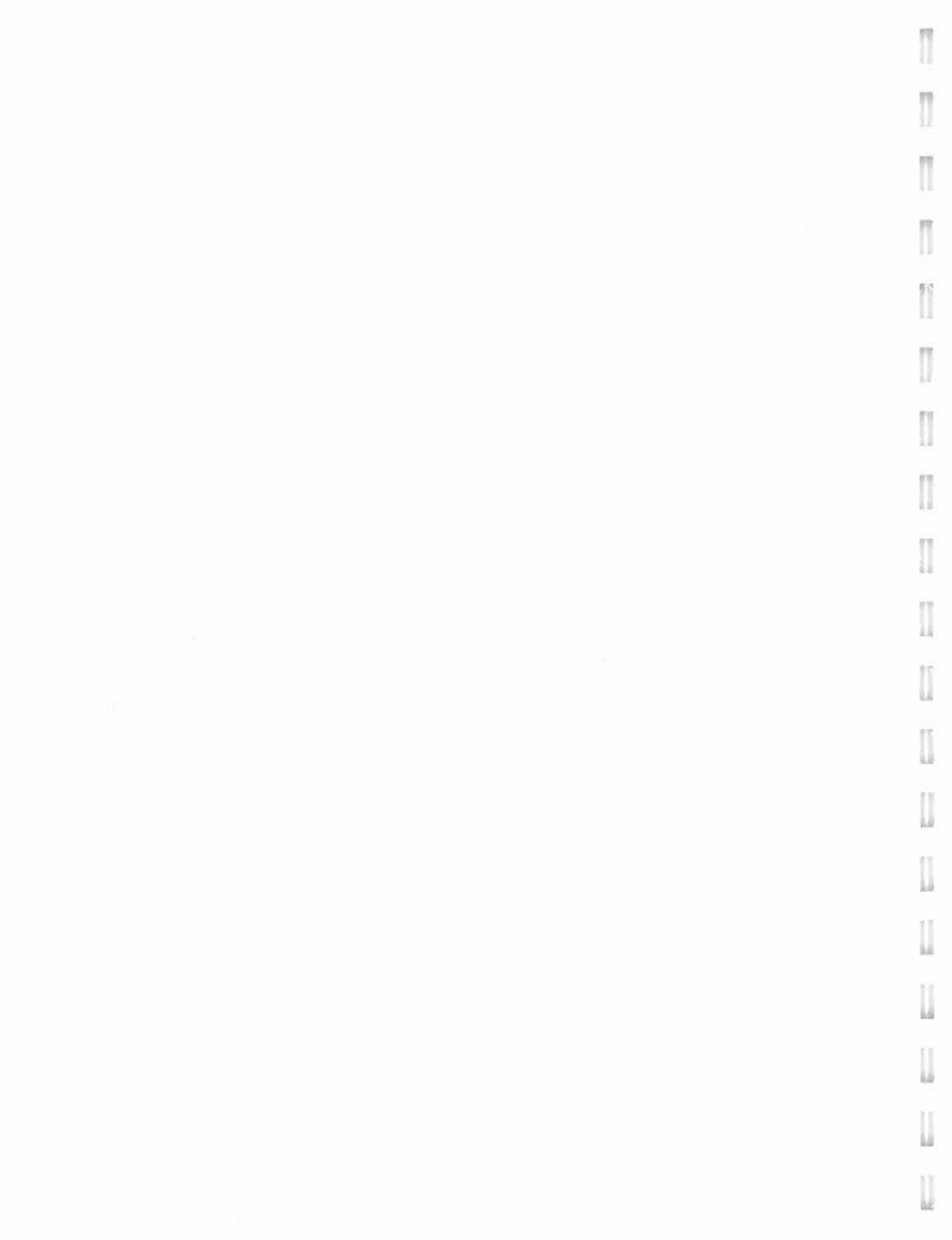
Based on input from the first public meeting, the Study Team, working with the Army Corp of Engineers and the National Park Service, is considering three alternatives to address the needs of this project. The alternatives include:

Alternative 1: No-Build

Alternative 2: Separated Shared Use Path (south side)



Alternative 2 Typical Section



SECOND PUBLIC MEETING
April 23, 2003
PHOTO VISUALIZATION

WEST OF PERSIMMON TREE ROAD LOOKING WEST

ALTERNATE 3 WITH NO TREATMENT



EXISTING



PROPOSED

Wild Bird CENTER Looking EAST

ALTERNATE 3 with Closed Section Curb and Graded Slope



Existing



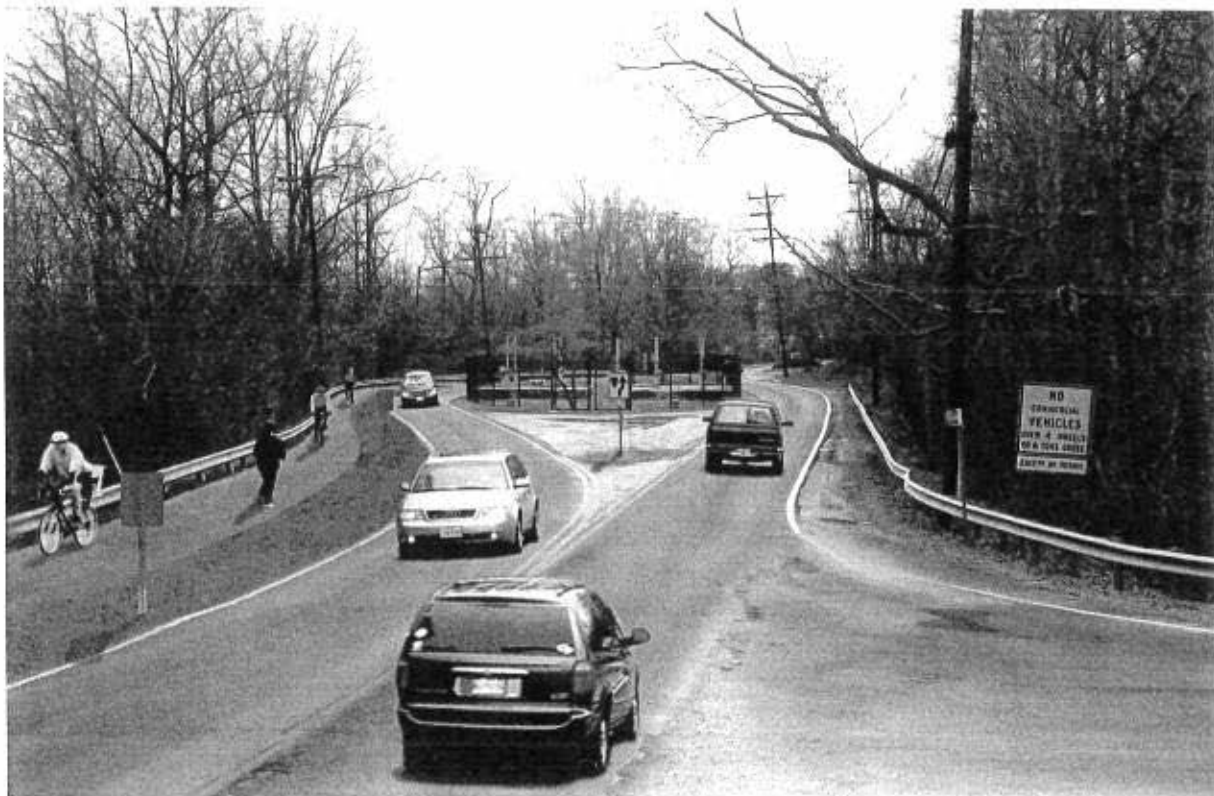
Proposed

EGGERT Looking West

ALTERNATE 2 with Open Section GRASS PAVERS



Existing



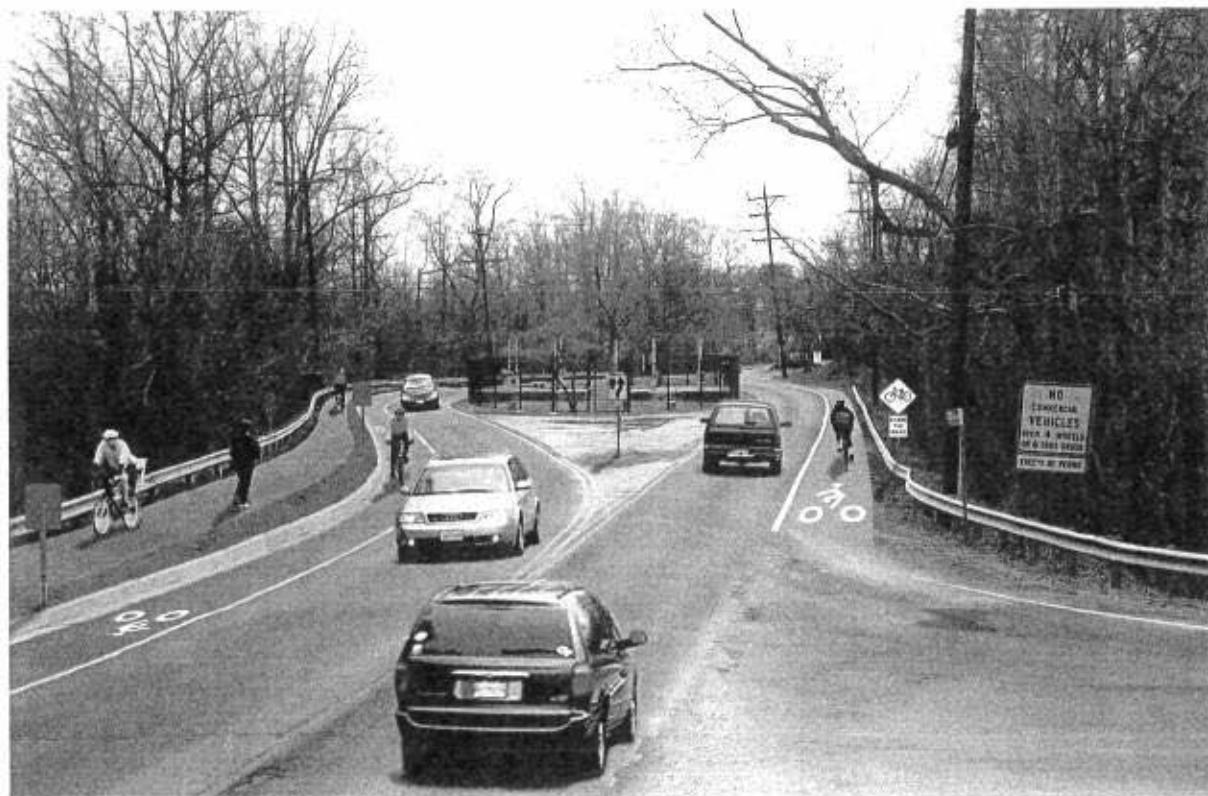
Proposed

EGGERT Looking West

ALTERNATE 3 with Monolithic Curb



EXISTING



PROPOSED

Goldsboro Looking EAST

ALTERNATE 2 with Open Section GRASS PAVERS



EXISTING



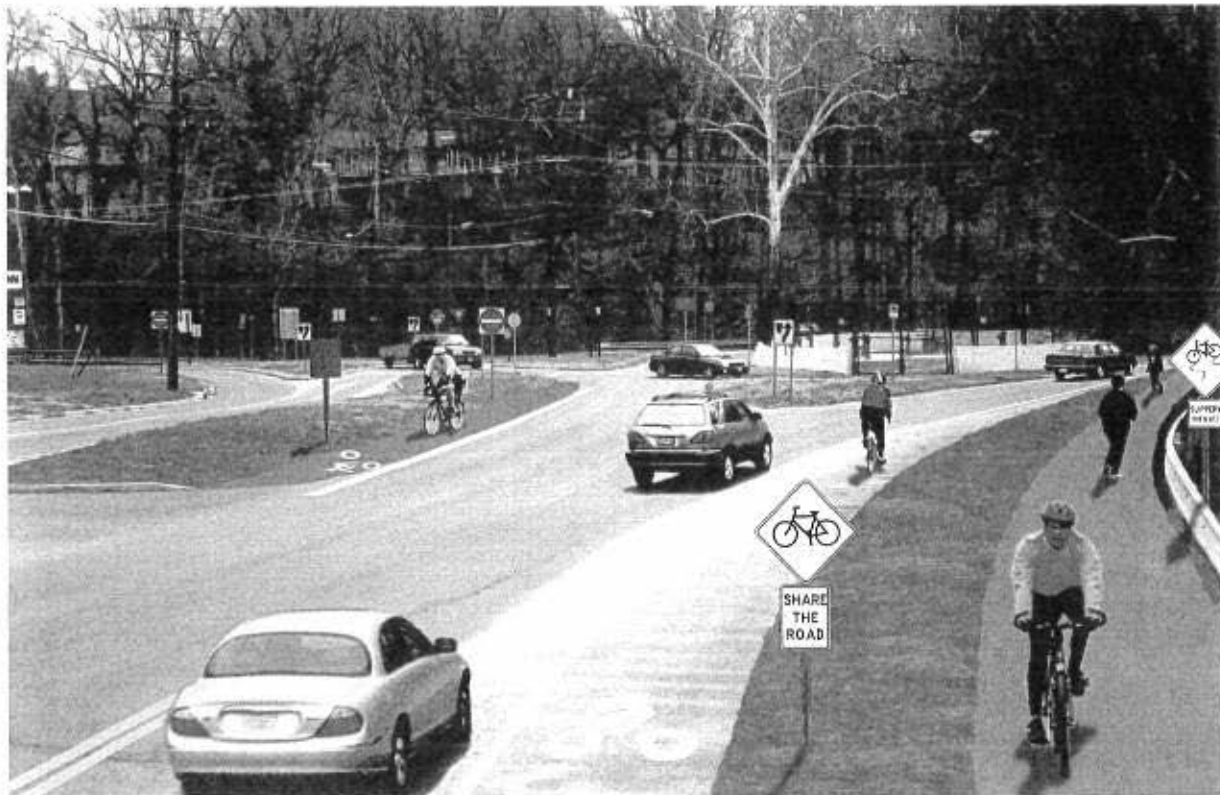
PROPOSED

Goldsboro Looking East

ALTERNATE 3 with Open Section GRASS PAVERS



Existing



Proposed

Union Arch Bridge Looking East

ALTERNATE 2 with Open Section Graded BERM



Existing



Proposed

Union Arch Bridge Looking East

ALTERNATE 3 with Open Section Graded Swale



Existing



Proposed

SECOND PUBLIC MEETING
April 23, 2003
SUMMARY OF
CITIZEN COMMENTS

**MacArthur Boulevard
Public Meeting Comments
April 23, 2003**

| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|-------------------------------|--|--|
| General | Bicyclists fare best when they act and are treated as drivers of vehicles. Side paths are the least safe type of bikeway. | Different bikeways serve different groups. |
| General | Reduce the posted speed along MacArthur Boulevard to 25 MPH and tell fast drivers to use the parkway. | This comment will be forwarded to the Montgomery County Division of Traffic and Parking Services for further evaluation. |
| General | Alternative 3 still has bikers at risk crossing driveways and intersecting streets. | Thank you for your comment. |
| Open Space | Can the Open Space be planted with shrubs rather than only grass? Cars may not drive over shrubs, as they WOULD grass. | This is a design issue and will be considered in design phase. |
| Lighting | A major benefit to my use of the roadway would be the addition of the streetlights to sections of MacArthur, notably west of Persimmon Tree Road and just west of Sycamore Lane. | This issue will be considered further in Phase II of Facility Planning. |
| Signing | Also adding "share the road" signs would be better in my opinion then adding bike lanes, especially if they are added to the new grassy median on the south side. | Thank you for your comment. |
| Improvement Union Arch Bridge | Make sure bike lane at Union Arch Bridge merges with traffic lane before stopping line at traffic light to allow road cyclists to ride with traffic across the bridge. | Bike lanes will be accommodated at the Union Arch Bridge to allow bicyclists to cross in the travel lane. |
| Alignment of Shared Use Path | Is there any possibility of moving the eastern most portion of the multi-use path to the old trolley line? This would leave more room for on-road bike lanes. | This issue is beyond the scope of our study. It will be kept open for negotiation for future projects. |
| Oppose entire project | Improving the MacArthur Boulevard bike path is a complete waste money because it is used by a limited number of families who are cautious about their safety. All serious bikers ride on the main road without exception and I believe no improvements, no matter how substantial, will change that. | Thank you for your comment. |
| Support No Build Alternative | First choice would be the no build alternative. | Thank you for your comment. |

**MacArthur Boulevard
Public Meeting Comments
April 23, 2003**

| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|----------------------------------|---|-----------------------------|
| Support both Alternative 2 and 3 | In general I support the proposed improvements to MacArthur Boulevard with the exception between Sangamore Road and Windward Place. This length of road is adjacent to the Bon Air Heights Subdivision, which contains five houses that either front or back up to MacArthur Boulevard. All of these homes have necessary parking areas in the area of the proposed new open space and shared use path. These homes are greatly impacted by an increase in the existing paved area. | Thank you for your comment. |
| Support Modified Alternative 2 | Due to the current County finances, I would urge spot improvements to the bikeway rather than constructing the entire Alternative 2. I doubt that money to implement Alternative 2 will be available for quite a while, and I would rather shoot for the possible now. | Thank you for your comment. |
| Support Alternative 2 | The Town of Glen Echo supports Alternative 2. | Thank you for your comment. |
| Support Alternative 2 | The Mohican Hills Citizen's Association officially supports Alternative 2. A meeting was held on June 3 with residents from Mohican Hills, Town of Glen Echo, and surrounding communities overwhelmingly favored Alternative 2 | Thank you for your comment. |
| Support Alternative 2 | The Glen Mar Park Community Association supports Alternative 2. | Thank you for your comment. |
| Support Alternative 2 | Tulip Hills Citizen Association support Alternative 2 provided adequate signage warning drivers to watch out for cyclists. Also improvements may be needed at the sites of the water supply valves located in the middle of the boulevard. | Thank you for your comment. |
| Support Alternative 2 | The Brookmont Civic League generally supports Alternative 2. The Brookmont Civic League recognizes that Alternative 2 does not address the pressing needs to improve safety for advanced riders, who will continue to ride on the road. Our community is concerned that Alternative 3 will fail to address the safety needs of advanced riders, which Brookmont agrees is an important goal of the project. | Thank you for your comment. |
| Support Alternative 2 | Alternative 2 should be selected with low shrubs in the open spaces as an erosion control and a vertical reminder for cars that the hiker/biker path is not part of the road. | Thank you for your comment |
| Support Alternative 2 | Alternative 2 is an excellent minimalist approach that will fix problem areas and provide residents and riders with clear benefits. | Thank you for your comment. |

**MacArthur Boulevard
Public Meeting Comments
April 23, 2003**

| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|--------------------------------------|---|-----------------------------|
| Support Modified Alternative 3 | It would be possible to support a 3' shoulder extending past a painted line. This would provide a bike-able roadway, but would not constitute a designated bike lane. It may offer some advantages in cost and in safety, since on-road bicyclists would be aware that they are not riding in a "protected" lane and would therefore need to be alert to right turning traffic crossing the line of travel. | Thank you for your comment. |
| Support Modified Alternative 3 | We would like to see a bike lane. | Thank you for your comment. |
| Support Alternative 3 | The Photo Rendering at Union Arch Bridge Looking East Alternative 3 looks best. | Thank you for your comment. |
| Support Alternative 3 | The PPTC (Potomac Peddlers Touring Club) strongly supports adoption of Alternative 3, which includes both improvements to the existing off-road multi-purposed path and construction of five-foot wide bike lanes on both sides of MacArthur Boulevard. The enjoyment and safety afforded by the multi-purpose path to both cyclists and other users would be enhanced by the County's proposed improved separation between the path and the roadway. However, improvements to the off-road multi-purposed path alone would not meet the needs of faster cyclists, including those who participate in most of our club's group rides, who cycle at sustained speeds of up to 14-25 MPH. This type of cycling cannot reasonably be supported by a single eight-foot wide off-road path that supports many uses in both directions, including, in addition to cycling, hiking, roller-blading, dog-walking, and baby strolling. | Thank you for your comment. |
| Support Alternative 3 | The PPTC feels that improvements of MacArthur Boulevard for bicycling would also be consistent with the County's policies to promote smart growth and transportation alternatives. An improved cycling corridor along MacArthur Boulevard would allow more cyclists from the region's urban areas to cycle from their homes, rather than transport their bicycles by automobile to distant ride starts. As the region attempts to avoid Federal transportation sanctions due to poor air quality, enhancing bicycle access to and from those urban centers should be a priority. | Thank you for your comment. |

**MacArthur Boulevard
Public Meeting Comments
April 23, 2003**

| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|--------------------------|---|-----------------------------|
| Support Alternative 3 | As the Montgomery County Bike Advocate for WABA and a user of MacArthur Boulevard, I favor Alternative 3. | Thank you for your comment. |
| Support Alternative 3 | My vote is for the 5-foot bike lane on both sides of MacArthur Boulevard. That will get the Olympic bicyclists off the recreational path used by mothers with strollers and elderly residents out for a walk. The 5-foot wide minimum strip of grass will be absolutely wonderful. | Thank you for your comment. |
| Support Alternative 3 | As the Montgomery County Bike Advocate for WABA and a user of MacArthur Boulevard, I favor Alternative 3. | Thank you for your comment. |
| Support Alternative 3 | The Washington Area Bicyclist Association supports Alternative 3. | Thank you for your comment. |
| Support Alternative 3 | Team Snow Valley supports Alternative 3. | Thank you for your comment. |
| Support Alternative 3 | The Montgomery Bicycle Advocates support Alternative 3. | Thank you for your comment. |
| Support Alternative 3 | The PPTC (Potomac Peddlers Touring Club) strongly supports adoption of Alternative 3, which includes both improvements to the existing off-road multi-purposed path and construction of five-foot wide bike lanes on both sides of MacArthur Boulevard. The enjoyment and safety afforded by the multi-purpose path to both cyclists and other users would be enhanced by the County's proposed improved separation between the path and the roadway. However, improvements to the off-road multi-purposed path alone would not meet the needs of faster cyclists, including those who participate in most of our club's group rides, who cycle at sustained speeds of up to 14-25 MPH. This type of cycling cannot reasonably be supported by a single eight-foot wide off-road path that supports many uses in both directions, including, in addition to cycling, hiking, roller-blading, dog-walking, and baby strolling. | Thank you for your comment. |

**MacArthur Boulevard
Public Meeting Comments
April 23, 2003**

| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|--------------------------|---|-----------------------------|
| Support Alternative 3 | The PPTC feels that improvements of MacArthur Boulevard for bicycling would also be consistent with the County's policies to promote smart growth and transportation alternatives. An improved cycling corridor along MacArthur Boulevard would allow more cyclists from the region's urban areas to cycle from their homes, rather than transport their bicycles by automobile to distant ride starts. As the region attempts to avoid Federal transportation sanctions due to poor air quality, enhancing bicycle access to and from those urban centers should be a priority. | Thank you for your comment. |
| Support Alternative 3 | My vote is for the 5-foot bike lane on both sides of MacArthur Boulevard. That will get the Olympic bicyclists off the recreational path used by mothers with strollers and elderly residents out for a walk. The 5-foot wide minimum strip of grass will be absolutely wonderful. | Thank you for your comment. |
| Support Alternative 3 | MacArthur Boulevard is the most critical Maryland Roadway for bicyclists who live in DC and Northern Virginia. Alternative 3 is the only acceptable one. It will also improve the safety, capacity and maintenance of the roadway for motorists. | Thank you for your comment. |
| Support Alternative 3 | I feel that Alternative 3 is the best solution to current problems. The on-road bike lanes may need to be narrower than five-feet, but are needed to be separate from the multi-use path. The multi-use path definitely needs to be well separated from the road. I would strongly recommend considering a barrier between the on-road path and the multi-use path, which is low maintenance and truly prevents cars from driving over it. Perhaps a row of slow growing small bushes spaced 8 to 10 feet apart and set in mulch would satisfy both objectives better than a grass strip. Salt and sand would be swept and absorbed into the mulch. Maintenance would be annual or semi-annual. There must be a budget for maintenance of the multi-use path (surface and tree-trimming). | Thank you for your comment. |

**MacArthur Boulevard
Public Meeting Comments
April 23, 2003**

| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|--------------------------|--|---|
| Support Alternative 3 | As a recreational off-road biker, I prefer the C&O Towpath over a paved bikeway. However, a riverside loop consisting of the Towpath and the MacArthur Boulevard bikeway would be even more attractive, especially for families and groups – if proposed improvements were in place. The beauty of the Potomac River, Montgomery County's most scenic attraction, should be exploited whenever reasonably possible. Alternative 3, which includes both improvements to the existing off-road path and five-foot wide bike lanes on both sides of MacArthur Boulevard, would do so. | Thank you for your comment. |
| Support Alternative 3 | The existence of an off-road path fosters a false belief by motorists that all cyclists are required to ride on the path, resulting in animosity toward and potential risk to on-road cyclists. These conditions render cycling on the road less safe than is desirable especially at times of heavy automobile use. | Thank you for your comment. |
| Support Alternative 3 | The PPTC recognizes that Alternative 3 is the most expensive of the options under consideration by the County. However, we believe that MacArthur Boulevard's regional importance to the cycling community should make MacArthur a high priority for expenditure of funds that the County may in the future have available for bicycling improvements. | Thank you for your comment. |
| Support Alternative 3 | Alternative 3 is the best option | Thank you for your comment. |
| Support Alternative 3 | By widening the roadway to provide bike lanes for cyclists, the needs of motorists and the safety of cyclists will both be met. | Thank you for your comment. |
| Support Alternative 3 | As an established and well-used cycling route, it is unlikely that road cyclists will willingly cede MacArthur Boulevard to motorists, no matter what improvements are made to the shared-use path. MacArthur Boulevard presents an excellent opportunity as a model for multi-mode transportation. I strongly favor Alternative 3. | Thank you for your comment. |
| Support Alternative 3 | WABA (Washington Area Bicyclist Association), strongly endorses a total rehabilitation of MacArthur Boulevard to serve as originally intended – as a scenic byway, with bike lanes and a separate shared use path. Its de facto status as an arterial highway should be lowered in priority. | MacArthur Boulevard is functionally classified as an arterial highway |

**MacArthur Boulevard
Public Meeting Comments
April 23, 2003**

| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|--------------------------|---|---|
| Support Alternative 3 | At present there is little shoulder room for bicycles. While much of the study area currently has a side path, this side path is moderately to severely degraded, has unusual shifts, and is too narrow to accommodate the pedestrians, dog walkers, baby strollers, roller bladders, and bicyclists that all use it. Alternative 2 partly addresses this problem, but still is inadequate for a large portion of the cycling community, due to the narrow shared path separated from the roadway. | Thank you for your comment. |
| Support Alternative 3 | On behalf of Montgomery Bicycle Advocates (MOBIKE) the members of MOBIKE support DPWT's comprehensive approach to improving the MacArthur Boulevard Bikeway through the addition of both on-road bike lanes and a revamped shared-use path. | Thank you for your comment. |
| Support Alternative 3 | I am in favor of Alternative 3. Marked bike lanes are needed to provide a safe designated spaces for bicyclists and should reduce motorist objections. Striping a bike lane will minimize the appearance of a wider road and hopefully not encourage increased traffic speeds. | Thank you for your comment. |
| Support Alternative 3 | This section of Montgomery County is highly used for recreation. With the completion of Glen Echo Park not too far away, I believe that Alternative 3 is by far the best choice. I believe walkers, rollerbladers and bikers to and from Glen Echo Park will much more heavily use the current bike path. Alternative 3 will get the faster cyclists off the path and onto the road where they belong. I also believe that local businesses will benefit since a safe, level bike lane in such a scenic area will be quite a draw to serious road cyclists. | Thank you for your comment. |
| Oppose Alternative 3 | The bike lanes will, I think, be more of a danger than the current situation in that they will at times disappear due to narrow parts of the roadway. This creates an unsafe requirement where cyclists must suddenly merge with traffic after having been separate from the traffic pattern. | Thank you for your comment. |
| Oppose Alternative 3 | Motorists, in my experience, are more abusive when they think cyclists have an alternative. This means that bike lanes will result in cyclists being targets of greater harassment when they deviate in the slightest from the bike lane. | Improvements to MacArthur Boulevard should be less reason for motorists to be harassing bicyclists. |

**MacArthur Boulevard
Public Meeting Comments
April 23, 2003**

| TOPIC | COMMENTS | STUDY TEAM RESPONSE |
|-------------------------|---|-----------------------------|
| Oppose Alternative 3 | The addition of the five-foot bike lane on the existing roadway would add little benefit in my use of the road and actually as the dangers that currently exist on the south side of the roadway. As a roadway user, I value the orderly flow of traffic and that I am a part of that traffic flow. I find safety in a predictable traffic pattern, which I think would be lost with the addition of bike lanes. Cars turning right and left would always be a great danger to cyclists in the bike lanes more so than now. | Thank you for your comment. |
| Oppose Alternative 3 | I am unalterably opposed to the widening of the path as shown in alternative 3. | Thank you for your comment. |
| Oppose Alternative 3 | Oppose Alternative 3 as it would be very expensive and would destroy the semi-rural nature of the corridor. | Thank you for your comment. |

APPENDIX A: AGENCY CORRESPONDENCE



MARYLAND DEPARTMENT OF HOUSING
& COMMUNITY DEVELOPMENT

Ms. Joanna Hiebler
URS Corporation
4 North Park Drive, Suite 300
Hunt Valley, MD 21030

May 7, 2003

Robert L. Ehrlich, Jr.
Governor
Michael S. Steele
Lt. Governor
Victor L. Hoskins
Secretary
Shawn S. Karimian
Deputy Secretary

RE: MacArthur Boulevard Bikeway Improvement Study
Montgomery County, Maryland

Dear Ms. Hiebler:

Thank you for notifying the Maryland Historical Trust (Trust) regarding the construction of the proposed bikeway along MacArthur Boulevard. We are writing in response to your request for information on historic standing structures and archeological resources within the project area for the above referenced project.

Archeology:

The Trust's Maryland Inventory of Historic Properties records numerous archeological sites in the vicinity of the general project area. However, according to your letter the project would entail improvements to the existing bikeway along MacArthur Boulevard. If the project proposes construction outside of previously disturbed areas, it may have the potential to affect archeological sites and archeological investigations may be warranted.

Historic Built Environment:

Using the general location map included with your letter, the Trust has reviewed our files to determine the presence of historic structures in the vicinity of the project. This project area encompasses numerous previously surveyed historic resources, including properties listed on the National Register. The following resources are located in the vicinity of the project area:

| | |
|---------|---|
| M:12-46 | C&O Canal National Historical Park (NR-listed) |
| M:29-31 | Old Angler's Inn |
| M:29-32 | Cropley Houses |
| M:29-34 | William Hill Houses and Store |
| M:29-49 | Washington Aqueduct (NR-listed) |
| M:29-52 | Carderock Historic District (NR-Eligible) |
| | <i>Within the Carderock Historic District:</i> |
| M:29-47 | David W. Taylor Model Basin (NR-listed) |
| M:29-53 | Instrument House – Building 106 |
| M:35-23 | Cabin John Hotel Gas House |
| M:35-24 | Reading House (Oakdale Villa) |
| M:35-25 | Clara Barton House (NR-listed) |
| M:35-31 | Cabin John Right-of-Way (Brookmont Trolley R-O-W) |



M:35-37 Cabin John Aqueduct (NR-listed)
M:35-41 Glen Echo Park Historic District (NR-listed)
Within the Glen Echo Park Historic District:
M:35-26 Chautauqua Tower (NR-listed)
M:35-39 Carousel at Glen Echo Park (NR-listed)
M:35-44 Stonehaven
M:35-51 Clara Barton School
M:35-5 Benfield's Service Garage
M:35-1 George Washington Memorial Parkway.

If the proposed project entails any federal or state agency involvement (including financial assistance, permits or licenses), it will be subject to review under Section 106 of the National Historic Preservation Act of 1966, as amended, or Sections 5-617 & 5-618 of Article 83B of the Annotated Code of Maryland. Both historic preservation laws require the involved federal/state agency to consider the effects of the proposed project on significant historic properties, including architectural and archeological resources. Part of the review process involves consultation between the agency (or its designee) and our office to identify and evaluate historic properties that may be affected by the project and to develop measures to avoid, reduce or mitigate any adverse effects on significant historic properties. Your correspondence did not indicate whether or not there will be any federal or state agency involvement in this undertaking.

Should the project be subject to review under the federal or state historic preservation laws referenced above, the Trust will need additional information to continue the consultation process. Specifically, any future submittals must address the following issues:

- Future correspondence must provide a thorough description of the project action and include project plans illustrating the existing bikeway and proposed improvements.
- Please state the nature of any federal or state agency involvement in the project (funds, permits, or licenses).
- The Area of Potential Effect (APE) must be justified and clearly illustrated.
- In addition to the previously inventoried resources listed above, all historic resources fifty years old and older must be identified within the APE.
- If historic resources are located within the APE, a qualified cultural resources professional will need to complete additional work in accordance with the Trust's *Standards and Guidelines for Architectural and Historical Investigations in Maryland*. Determinations of eligibility need to be prepared for all resources not already listed in or determined eligible for the National Register. Please refer to the Trust's *General Guidelines for Compliance-Generated Determinations of Eligibility (DOE)* for guidance in determining appropriate survey treatments. These guidelines, along with electronic database forms and guidelines for completing determinations of eligibility, can be accessed at the Trust's website www.marylandhistoricaltrust.net.
- If the APE contains any properties listed in or recommended eligible for the National Register, please provide an assessment of the project's effects on those resources.

Ms. Joanna Hiebler
MacArthur Boulevard Bikeway Improvement Study
May 7, 2003
Page 3

Once we have received the additional information requested in this letter, if applicable, the Trust will continue its review of the undertaking and provide appropriate comments and recommendations.

For future reference, please note that the Trust encourages consultants to compile general cultural resources information as part of project planning by using the resources available in the Trust's library. To schedule an appointment to use the library, please contact the Librarian - Mary Louise de Sarran, at 401-514-7655. Given our current staff shortage in the Project Review & Compliance Unit, we are not able to conduct research and provide general information for projects in which we have no regulatory involvement.

If you have questions or require additional information, please call Tim Tamburrino (for historic built environment) at 410-514-7610 or me (for archeology) at 410-514-7631. We thank you for your cooperation and assistance and look forward to assisting you to complete the historic preservation responsibilities for this undertaking.

Sincerely,



Elizabeth J. Cole
Administrator, Project Review & Compliance

EJC/TJT
200300902

cc: Don Sparklin (SHA)
Linda Morrison (COE)
Gary Setzer (MDE)



| | | |
|--|---------------|--------------|
| Post-It™ brand fax transmittal memo 7671 | | # of pages ▾ |
| To | Joanna Hieber | From |
| Co. | URS Corp. | Co. |
| Dept. | | Phone # |
| Fax # | 410 229 0556 | Fax # |

Robert L. Ehrlich, Jr.
Governor

Michael S. Steele
Lt. Governor

Maryland Department of Natural Resources

Tawes State Office Building
580 Taylor Avenue
Annapolis, Maryland 21401

C. Ronald Franks
Secretary

W. P. Jensen
Deputy Secretary

March 19, 2003

Ms. Yasamin Esmaili
Montgomery County Department of
Public Works and Transportation
101 Monroe Street, Ninth Floor
Rockville, MD 20850-2540

RE: Environmental Review for MacArthur Boulevard Bikeway Improvement Study, from DC/Montgomery County Line to the Old Anglers Inn at 10801 MacArthur Boulevard, Montgomery County, Maryland.

Dear Ms. Esmaili:

The Wildlife and Heritage Service's Natural Heritage database indicates that there are numerous records for species of concern known to occur in the area of the C&O Canal within the vicinity of the project site. If the trail improvements are confined to the existing bikepath on the road side of the C&O Canal, then only minimal impacts to the rare, threatened and endangered species (RTEs) are anticipated. However, if any work is proposed for the river side of the C&O Canal bed, then more detailed project plans should be submitted to this office for further evaluation of potential impacts to the RTEs in the area.

If you should have any further questions regarding this information, please contact me at (410) 260-8573 or at the above address.

Sincerely,

A handwritten signature in cursive script that reads "Lori A. Byrne".

Lori A. Byrne,
Environmental Review Specialist,
Wildlife and Heritage Service

ER# 2002.2545.mo
Cc: R. Wiegand, DNR



Parris N. Glendening
Governor

Maryland Department of Natural Resources
ENVIRONMENTAL REVIEW

J. Charles Fox
Secretary

Kathleen Kennedy-Townsend
Lt. Governor

Tawes State Office Building
Annapolis, Maryland 21401

Karen M. White
Deputy Secretary

December 11, 2002

M' Yasamin Esmaili
Montgomery County
Department of Public Works and Transportation
101 Monroe Street, Ninth Floor
Rockville MD 20850-2540

RECEIVED

C: YKE w/enclosure

DEC 17 2002

JSM/SS

O: FILE VIA

MDPWT & ENGINEERING SERVICES DESIGN SECTION

Dear M' Esmaili:

This letter is in response to your letter of request, dated December 6, 2002, for information on the presence of finfish species in the vicinity of Montgomery County Department of Public Works and Transportation's proposed improvements to the existing bikeway along MacArthur Boulevard.

The proposed improvements to the bikeway could impact tributaries to the Potomac River, including Rock Run and Cabin John Creek (Washington Metropolitan Area). All tributaries to the Potomac River that could be impacted by the proposed work are classified as Use I waters (Water Contact Recreation and Protection of Aquatic Life). Generally, no instream work is permitted in Use I streams during the period of March 1 through June 15, inclusive, during any year.

Our Freshwater Fisheries Division has not documented any spawning activities of anadromous fish species in any of the tributaries within the project area. However, these streams supports many resident fish species. Table V-2 (attached) lists fish species documented by our Fisheries Service in the Washington Metropolitan Area Basin. Many of these species could potentially be found near your project site. These species should be protected by the Use I instream work prohibition period, sediment and erosion control methods, and other Best Management Practices typically used for protection of stream resources.

If you have any questions concerning these comments, you may contact me at 410-260-8331.

Sincerely,

A handwritten signature in black ink that reads "Ray C. Dintaman, Jr.".

Ray C. Dintaman, Jr., Director
Environmental Review Unit

RCD
Attachment

Table V-2. Fish Species Collected in the Washington Metropolitan Area Basin, 1974 through 1984. (New species collected in 1980 to 1984 study designated by *.)

| | |
|----------------------|--|
| Salmonidae | |
| Brook trout | <u>Salvelinus fontinalis</u> (Mitchill) |
| Brown trout | <u>Salmo trutta</u> Linnaeus |
| Rainbow trout | <u>Salmo gairdneri</u> Richardson |
| Cyprinidae | |
| Stoneroller | <u>Campostoma anomalum</u> (Rafinesque) |
| Blacknose dace | <u>Rhinichthys atratulus</u> (Hermann) |
| Longnose dace | <u>Rhinichthys cataractae</u> (Valenciennes) |
| Cutlips minnow | <u>Exoglossum maxillingua</u> (Lesueur) |
| Creek chub | <u>Semotilus atromaculatus</u> (Mitchill) |
| River chub | <u>Nocomis micropogon</u> (Cope) |
| Fallfish | <u>Semotilus corporalis</u> (Mitchill) |
| Rosyside dace | <u>Clinostomus funduloides</u> Girard |
| Common shiner | <u>Notropis cornutus</u> (Mitchill) |
| Bluntnose minnow | <u>Pimephales notatus</u> (Rafinesque) |
| Golden shiner | <u>Notemigonus crysoleucas</u> (Mitchill) |
| Spotfin shiner | <u>Notropis spilopterus</u> (Cope) |
| Spottail shiner | <u>Notropis hudsonius</u> (Clinton) |
| Silverjaw minnow | <u>Ericymba buccata</u> Cope |
| Swallowtail shiner | <u>Notropis procne</u> (Cope) |
| Satinfish shiner | <u>Notropis analostanus</u> (Mitchill) * |
| Catostomidae | |
| Northern hogsucker | <u>Hypentelium nigricans</u> (Lesueur) |
| White sucker | <u>Catostomus commersoni</u> (Lacepede) |
| Creek chubsucker | <u>Erimyzon oblongus</u> (Mitchill) * |
| Ictaluridae | |
| Margined madtom | <u>Noturus insignis</u> (Richardson) |
| Brown bullhead | <u>Ictalurus nebulosus</u> (Lesueur) |
| Yellow bullhead | <u>Ictalurus natalis</u> (Lesueur) * |
| Cottidae | |
| Mottled sculpin | <u>Cottus bairdi</u> Girard |
| Percidae | |
| Tessellated darter | <u>Etheostoma olmstedti</u> Storer |
| Greenside darter | <u>Etheostoma blennioides</u> Rafinesque |
| Fantail darter | <u>Etheostoma flabellare</u> Rafinesque |
| Centrarchidae | |
| Bluegill sunfish | <u>Lepomis macrochirus</u> (Rafinesque) |
| Smallmouth bass | <u>Micropterus dolomieu</u> Lacepede |
| Largemouth bass | <u>Micropterus salmoides</u> (Lacepede) |
| Greenside sunfish | <u>Lepomis cyanellus</u> Rafinesque |
| Pumpkinseed sunfish | <u>Lepomis gibbosus</u> (Linnaeus) |
| Red breasted sunfish | <u>Lepomis auritis</u> (Linnaeus) |
| Rock bass | <u>Ambloplites rupestris</u> (Rafinesque) |
| Anguillidae | |
| American eel | <u>Anguilla rostrata</u> (Lesueur) |



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401



January 2, 2003

Montgomery County Dept of Public Works and Transportation
Division of Engineering Services, Design Section
Attn: Ms. Yasamin Esmaili
101 Monroe Street, Ninth Floor
Rockville, MD 20850-2540

RE: *MacArthur Boulevard Bikeway Improvement Study, Montgomery County, MD*

Dear Ms. Esmaili:

This responds to your letter, received December 12, 2002, requesting information on the presence of species which are federally listed or proposed for listing as endangered or threatened within the vicinity of the above reference project area. We have reviewed the information you enclosed and are providing comments in accordance with Section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*):

Except for occasional transient individuals, no federally proposed or listed endangered or threatened species are known to exist within the project impact area. Therefore, no Biological Assessment or further Section 7 Consultation with the U.S. Fish and Wildlife Service is required. Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

This response relates only to federally protected threatened or endangered species under our jurisdiction. For information on the presence of other rare species, you should contact Lori Byrne of the Maryland Wildlife and Heritage Division at (410) 260-8573.

An additional concern of the Service is wetlands protection. Federal and state partners of the Chesapeake Bay Program have adopted an interim goal of no overall net loss of the Basin's remaining wetlands, and the long term goal of increasing the quality and quantity of the Basin's wetlands resource base. Because of this policy and the functions and values wetlands perform, the Service recommends avoiding wetland impacts. All wetlands within the project area should be identified, and if construction in wetlands is proposed, the U.S. Army Corps of Engineers, Baltimore District, should be contacted for permit requirements. They can be reached at (410) 962-3670.

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interests in these resources. If you have any questions or need further assistance, please contact Charisa Morris at 410-573-4550.

Sincerely,

Mary J. Ratnaswamy

Mary J. Ratnaswamy, Ph.D.

Program Supervisor, Threatened and Endangered Species

APPENDIX B: MEETING MINUTES

MEMORANDUM

TO: All in Attendance and the File

FROM: Jane L. Tiedeman, PE
URS Corporation

DATE: November 8, 2002

REFERENCE: MacArthur Boulevard Bikeway Improvements
November 6, 2002 Kick-off Meeting
Meeting Summary

A meeting of the MacArthur Boulevard Bikeway Team was held on Wednesday, November 6, 2002 at 11:00 am in the Montgomery County Executive Building in Rockville, Maryland. The purpose of the meeting was to kick-off the MacArthur Boulevard Bikeway project. The following individuals were in attendance:

| | |
|------------------|--------------------------------------|
| Yasamin Esmaili | MC DPWT Engineering Division |
| Gail Tait-Nouri | MC DPWT Engineering Division |
| Jerri Cauthorn | MC DPWT Engineering Division |
| Holger Serrano | MC DPWT Engineering Division |
| Bob Simpson | MC DPWT Director's Office |
| Pat Bradley | MC DPWT Traffic and Parking Division |
| David MacGregor | U.S. ACOE |
| Larry Cole | MNCPPC |
| Chuck Kines | MNCPPC |
| Janie Tiedeman | URS Corporation |
| Valorie Hennigan | URS Corporation |

Yasamin Esmaili began the meeting by introducing the project and the team members. Next, Janie presented an overview of the project, the project limits and the general conditions observed within the study area. Community groups associated with the project include the Cabin John Citizens Association, the Brookmont Civic League and the Bannockburn Citizens Association. The communities have concerns regarding the safety and maintenance of the bikeway.

Gail Tait-Nouri provided a brief history of the existing bikeway including the following:

- The original bikeway pavement was not thick enough to withstand vehicular and truck traffic.
- The bikeway had more green space separating the roadway from the bikeway than today.
- Over the years maintaining the green space became more difficult and more of the green space has been paved over.

Pat Bradley added that flex posts have been added recently at a few locations to help improve safety. The community has requested a more visual barrier separating the bikeway and the roadway.

Dave MacGregor contributed information regarding the aqueduct. There are two conduits: one under the roadway and one under the bike lane. The one located under the centerline of the roadway was built in the 1800's of masonry materials and is about 9 feet in diameter. The conduit has an average of three feet of cover. The conduit under the bikeway was constructed in the 1920's of un-reinforced concrete. It is a horseshoe shaped conduit with an average cover of two feet. The distance between the two conduits is roughly 30 feet. There is a weight limit of six tons gross on the roadway. The road is owned by the ACOE and maintained and policed by Montgomery County. Dave provided construction drawings of the aqueduct and bike path.

Next, the team discussed other projects in the area including the C&O Canal Entrance Road Improvements at Falls Road and related DPWT projects. Pat Bradley discussed a DPWT project on MacArthur Boulevard from 79th Street through Seven Locks and the intersection of Persimmon Tree Road. The project includes adding rumble strips to warn vehicles approaching intersections and adding plastic curbing with flex posts to separate the existing bike path from the roadway. At the intersection of Persimmon Tree Road, the bike path width may be reduced to eight feet to provide more on-street space for commuter bicyclists. Pat indicated that he expects final plans within the next few weeks and will forward them to the Study Team.

Next, the team discussed the data needs for the project. The data needed and team member responsible for requesting/collecting it are listed below:

- Above ground utility information – Yasamin
- Zoning and property owner information – Yasamin
- As-built drawings for Clara Barton Parkway entrance – Gail
- Pavement condition reports – Yasamin
- Accident history, including bicyclists, pedestrians, and vehicles – Jeri
- Traffic data – Pat

Valorie Hennigan then presented the Project Purpose and Need outline. Discussion included the following:

- Include the bikeway history in the section on evolution of the project through the public process
- Add other communities (i.e. Glen Echo)
- It was suggested that appearance and safety be changed to usability and safety.
- Rank the issues of need by order of importance.
- Gale Tait-Nouri and Chuck Kines will identify other bikeways including the Capital Crescent, Proposed Persimmon Tree and Seven Locks bikeways that connect to this project.
- Bob Simpson suggested that the generic term bikeway be used until we know what the preferred alternative will be to avoid confusion over terminology.
- Include bike route signing and connector bike route signing as part of the study.
- Safe transition from the bikeway to the roadway shoulders should be given consideration at the Old Angler's Inn.

Yasamin requested that the project team review the outline and provide any additional comments to her by next Wednesday, November 13, 2002.

Next, Janie presented the scope of the alternatives based upon the information gathered to date, the master plan recommendations and the citizen group information. Bob Simpson recommended that an additional alternative be added – a bike lane in addition to a shared use bike path. The four potential alternatives for the project are:

- No-build
- A small-scale improvement to the existing bikepath/lane along the project length
- A fully separated shared use path for the full project length
- Bike lanes and a shared use bike path along the project length

Next, the team discussed public involvement strategy. At a minimum, there will be two public meetings. The first meeting, expected in the second week of January, is to introduce the citizens to the project. Alternatives will not be presented at this meeting. The second meeting, possibly in March, is to present alternatives to the public and solicit comments to incorporate into the preferred alternative. Holger Serrano recommended that additional meetings with the individual community associations might be more effective for this project given its length and the number of neighborhoods involved. Therefore, DPWT will review the project schedule, considering the additional community meetings.

In summary, the following actions will be taken with regard to the Project Purpose and Need and the Base Mapping:

- The project team will submit any additional comments on the Project Purpose and Need outline to Yasamin by Wednesday, November 13, 2002.
 - Gail and Chuck will provide the name and location of other bikeway projects to be included in the study.
 - Copies of the Town of Glen Echo letters regarding MacArthur Boulevard will be provided to URS
 - DPWT will provide additional data to URS to complete the Purpose and Need Statement.
 - Pat will provide final plans of his MacArthur Boulevard Project when completed (expected within the next few weeks).
 - The DPWT will review the schedule internally and provide any revisions to the project team.
- The meeting was adjourned at 12:10 PM. If you have any questions or suggestions for changes to this meeting summary, please contact Janie Tiedeman at (410) 785-7220.

JLT: jpk

MEMORANDUM

TO: All in Attendance and the File

FROM: Jane L. Tiedeman, PE
URS Corporation

DATE: January 9, 2003

REFERENCE: MacArthur Boulevard Bikeway Improvements
January 8, 2003 Team Meeting
Meeting Summary

A meeting of the MacArthur Boulevard Bikeway Team was held on Wednesday, January 8, 2003 at 1:00 PM in the Montgomery County Executive Building in Rockville, Maryland. The purpose of the meeting was to prepare for the upcoming Public Meeting, discuss alternatives development, and review the project schedule. The following individuals were in attendance:

| | |
|-----------------|---------------------------------------|
| Holger Serrano | DPWT Division of Engineering Services |
| Yasamin Esmaili | DPWT Division of Engineering Services |
| Gail Tait-Nouri | DPWT Division of Engineering Services |
| Jerri Cauthorn | DPWT Division of Engineering Services |
| Bob Simpson | DPWT Director's Office |
| Pat Bradley | DPWT Division of Traffic and Parking |
| David Adams | DPWT Division of Traffic and Parking |
| Nathan Cole | U.S. ACOE |
| Chuck Kines | MNCPPC |
| Janie Tiedeman | URS Corporation |
| Alan Straus | URS Corporation |

Holger Serrano began the meeting by introducing the project and the team members. Next, I reviewed the plans for the Public Meeting scheduled for January 22, 2003 at Bannockburn Elementary School. First, the Team reviewed the brief (10-15 minute) PowerPoint presentation that will be used at the beginning of the meeting to introduce the project to the attendees. The presentation will be revised slightly to emphasize the short and long term components of the project and reflect the following outline. The speakers for each segment of the presentation are also noted:

- Introductions/Presentation Overview (Holger Serrano)
- Study Area/Project History (Gail Tait-Nouri)
- Master Plan Visions (Chuck Kines or Callum Murray)
- Facility Planning (Holger or Yasamin Esmaili)
- AASHTO Guidelines (Holger or Yasamin)
- Next Steps/Process (Holger or Yasamin)

I will e-mail a copy of the revised presentation to each of the presenters. In addition, URS has prepared a brochure to hand out at the Public Meeting. It was distributed to the Team for review and **comments are requested by Friday, January 10, 2003**. Next, the Team reviewed the displays for the community workshop portion of the Public Meeting. The aerial mapping will be

on display at a central location during the workshop to provide a reference for the attendees. In addition, there will be four stations where various communities can work with staff to express their thoughts about the bikeway in their neighborhoods. The stations will be comprised as follows (staff is noted for each station):

- Welcome Table – DPWT Staff
- Station 1: Old Angler's Inn through the Palisades (River Falls, Cropley Falls, Mazza Woods, Carderock, and Palisades) – Holger
- Station 2: Congressional Country Club Estates and Cabin John – Gail
- Station 3: Town of Glen Echo and Bannockburn – Yasamin
- Station 4: Tulip Hills, Mohican Hills, Glen Echo Heights, Brookmont, and Bon Air Heights – Janie

In addition, other Study Team members will attend the Public Meeting and be available to answer questions and work at the stations as needed (David Adams, Bob Simpson, Dave McGregor, and Valorie Hennigan). The Study Team will plan to meet for dinner around 4:30 (location to be determined) and arrive at the elementary school by 6:00 PM to set up.

Next, we discussed the development of alternatives. I presented a sketch of a new bike lane combined with an improved shared use path to represent the ultimate vision of the bikeway. The Team would like to participate in a field walk to better understand some of the constraints of the project. I will develop a tour of those locations and make arrangements for the group to drive through the Study Area and view them together. URS will also begin to look at incorporating the five-foot-wide bike lanes on both sides of the roadway using the base mapping to determine the impacts. We will also look at the various existing cross sections and determine appropriate solutions by segment.

The meeting was adjourned at 3:00 PM. If you have any questions or suggestions for changes to this meeting summary, please contact Janie Tiedeman at (410) 785-7220.

MEMORANDUM

TO: All in Attendance and the File

FROM: Valorie Hennigan
URS Corporation

DATE: February 10, 2003

REFERENCE: MacArthur Boulevard Bikeway Improvements
February 10, 2003 Team Meeting
Meeting Summary

A meeting of the MacArthur Boulevard Bikeway Team was held on Monday, February 10, 2003 at 10:00 AM in the Montgomery County Executive Building in Rockville, Maryland. The purpose of the meeting was to review the public comments from the first public meeting, build consensus on alternatives development, schedule a tour of the project area, and review the project schedule. The following individuals were in attendance:

| | |
|------------------|---------------------------------------|
| Holger Serrano | DPWT Division of Engineering Services |
| Yasamin Esmaili | DPWT Division of Engineering Services |
| Gail Tait-Nouri | DPWT Division of Engineering Services |
| Bob Simpson | DPWT Director's Office |
| Pat Bradley | DPWT Division of Traffic and Parking |
| David Adams | DPWT Division of Traffic and Parking |
| Callum Murray | MNCPPC |
| Janie Tiedeman | URS Corporation |
| Valorie Hennigan | URS Corporation |

Janie Tiedeman began the meeting by introducing the project and the team members. The Team began with a discussion of Alternative 4: Bike Lanes (both sides) and separated Shared Use Path (south side) which represents the premium bikeway envisioned by the Team. It was noted that the north side of MacArthur Boulevard has existing drainage problems and this alternative may have significant drainage impacts. It is anticipated that the bike lanes on both sides would be full depth, load-bearing (10" to 14") pavement. The Team discussed impacts to the north and south side of MacArthur Boulevard including drainage issues, steep slopes, utility poles, impacts to adjacent property and the need for mitigation measures i.e. retaining walls. The team reviewed cross sections illustrating the five-foot bike lanes on each side of the Boulevard and the Shared Use Path on the south side with a minimum open space separation of five-foot between edge of pavement and path. In developing Alternative 4, URS will investigate mitigation measures such as retaining walls to reduce impacts to properties, steep slopes and eliminate extensive grading.

The Study Team discussed the Shared Use Path alignment. There was consensus for the Shared Use Path alignment to be as far away as possible from the bike lane/roadway, while meandering through the natural topography. The minimum open space should be five-feet wide so that no physical barriers would be needed. This alignment may require the addition of lighting to the Shared Use Path due to its distance away from the roadway streetlights.

Next, the Team discussed the bike path alignment for Alternative 3: Separated Shared Use Path (south side). The team recommended upgrading the existing path with a constant five-foot wide separation from the roadway and meeting current AASHTO guidelines. Where five feet cannot be reasonably maintained due to impacts, URS will reduce the cross section by using a barrier between the road and the bike path.

Next, the Study Team discussed adding another alternative. Alternative 5: Three-Foot Paved Shoulders with Separated Shared Use Path (south side) using as much of the existing path as possible. Where needed, URS will shift the centerline of road to the south to minimize the need for additional pavement on the north side of MacArthur Boulevard by using as much of the existing bike path pavement as possible. URS will check with the ACOE on how far the centerline of MacArthur Boulevard can be shifted to the south without impacting the conduits.

The summary of the five alternatives to be developed are:

- Alternative 1: No-Build
- Alternative 2: Spot Improvements (short term)
- Alternative 3: Separated Shared Use Path (south side) to upgrade existing path to AASHTO guidelines including a five-foot minimum open space separation between the Shared Use Path where possible and physical barriers where five-foot open space cannot be maintained.
- Alternative 4: Five-foot Bike Lanes (both sides) and Separated Shared Use Path (south side) as far away from bike lanes as possible.
- Alternative 5: Three-Foot Paved Shoulders (both sides) with Separated Shared Use Path (south side) using as much of the existing path as possible. Where needed, shift the centerline of road to minimize need for additional pavement on the north side of MacArthur Boulevard.

Next, we discussed Alternative 2: Spot Improvements. The Study Team discussed the maintenance concerns of the five-foot open space between the roadway and Shared Use Path. Examples of soil stabilization products were distributed and discussed. A mounded open space section was discussed as an alternative to the existing ditch section along the south side of the roadway. The mounded section would discourage cars from leaving the roadway and tearing up the open space. It would also provide a planting area for shrubs. Examples of barriers were presented including fences, guardrails, and planters.

Next, we discussed the project tour, where the Study Team will observe existing conditions in the Study Area to develop Alternative 2: Spot Improvements. Friday March 14, 2003 has been set for the project tour with a March 19, 2003 "snow" date. We will meet at the Montgomery

MacArthur Boulevard Bikeway Improvements
February 10, 2003 Meeting Summary
Page 3

County Executive Office Building in the morning for a briefing on Alternatives 3, 4, and 5 and then proceed to MacArthur Boulevard.

The project schedule was updated to reflect the time required to develop the alternatives, visit the site, and prepare for the second public meeting. It is anticipated that the public meeting will be scheduled for April 23, 2003. The revised project schedule is as follows:

| | |
|---|-----------------------|
| Team Meeting – Alternatives Development | 2/5/03 |
| Team Meeting – Alternatives Review | March 14, 2003 |
| Project Tour | March 14, 2003 |
| Team Meeting – Public Meeting Preparation | Week of April 7, 2003 |
| Public Meeting #2 | April 23, 2003 |
| Team Meeting – Alternative Recommendation | May 2003 (?) |
| Draft Project Prospectus | June 2003 (?) |
| Final Project Prospectus | July 2003 (?) |

Yasamin Esmaili will work with the Consultant Team to revise the project schedule.

Finally, the Study Team discussed the public comments received since the January 31, 2003 DPWT meeting. The public comments were distributed for review; the Team formulated a response to each new comment, which URS will incorporate into the project prospectus.

The meeting was adjourned at 12:20 PM. If you have any questions or suggestions for changes to this meeting summary, please contact me at (410) 785-7220.

MEMORANDUM

TO: All in Attendance and the File

FROM: Valorie Hennigan
URS Corporation

DATE: March 18, 2003

REFERENCE: MacArthur Boulevard Bikeway Improvements
March 14, 2003 Team Meeting
Meeting Summary

A meeting of the MacArthur Boulevard Bikeway Team was held on Friday, March 14, 2003 at 9:00 AM in the Montgomery County Executive Building in Rockville, Maryland. The purpose of the meeting was to review the alternatives, discuss the next public meeting scheduled for April 23, 2003, review the project schedule and conduct the project tour to develop the Spot Improvement Alternative. The following individuals were in attendance:

| | |
|------------------|---------------------------------------|
| Holger Serrano | DPWT Division of Engineering Services |
| Yasamin Esmaili | DPWT Division of Engineering Services |
| Bob Simpson | DPWT Director's Office |
| Pat Bradley | DPWT Division of Traffic and Parking |
| David Adams | DPWT Division of Traffic and Parking |
| David MacGregor | Army Corps of Engineers |
| Kevin Brandt | C&O Canal National Historic Park |
| Janie Tiedeman | URS Corporation |
| Romaine Kesecker | URS Corporation |
| Valorie Hennigan | URS Corporation |

Janie Tiedeman began the meeting by introducing the project and the team members. The meeting began with a brief discussion of the alternatives.

- Alternative 1: No-Build
- Alternative 2: Spot Improvements (short term)
- Alternative 3: Separated Shared Use Path (south side) to upgrade existing path to ASSTHO guidelines including a five-foot minimum open space separation between the Shared Use Path where possible and physical barriers where five-foot open space cannot be maintained.
- Alternative 4: Five-foot Bike Lanes (both sides) and Separated Shared Use Path (south side) as far away from bike lanes as possible.

Valorie Hennigan presented the features of Alternatives 3 and 4. The 100-scale plans prepared by URS show both alignments and selected cross sections for the entire project corridor including the impacts to utilities, topography, natural resources, physical barrier separation and

retaining walls. For both alternatives, the trail would remain on the south side of MacArthur Boulevard, eliminating the trail crossing to the north, near Persimmon Tree Road.

For Alternative 3, impacts included 14 utility poles and grading impacts, which would require installing approximately 150 linear feet of retaining wall. For Alternative 3, a minimum five-foot separation between the edge of roadway and the bike path can be maintained for the entire project length, eliminating the need to install a physical barrier between the roadway and bike path.

For Alternative 4, the centerline of MacArthur Boulevard was shifted, where needed, to minimize the impacts to the north side of the roadway. Impacts include 29 utility poles, and grading impacts, which would require installing approximately 1,500 linear feet of retaining wall. Because of the additional five-foot bike lanes on both sides of the roadway, the overall width of the roadway section is greater than the existing section, which would require the installation of approximately 2,180 linear feet of a physical barrier between the roadway and bike path.

For both alternatives, transition at Old Angler's Inn from bike lanes and shared use path to on road bicycle travel will be required. Coordination with the National Park Service (NPS) project at the parking lot across from Old Angler's Inn may provide a good transition from bike path to on road travel for bicycles. The County will continue to work with the NPS to develop the transition at this location.

The next team meeting will include discussion of the possible types of median or grass separation of the bike path and roadway. Yasamin Esmaili will set up this Team meeting for the beginning of April. Two plan sets for Alternatives 3 and 4 were provided to Montgomery County DPWT. Comments for Alternatives 3 and 4 need to be submitted to Yasamin by Wednesday March 26, 2003.

Next, the Team discussed the second public meeting scheduled for Wednesday, April 23rd, 7:00 pm - 9:00 pm, Bannockburn ES. The purpose of the public meeting is to present the alternatives to the public and solicit their comments. The public meeting will be set up using the same format as the first public meeting. Staffing of each station will be as follows:

Station 1 – Welcome and Sign-in – DPWT Staff

Station 2 – Study Background – Valorie Hennigan

Station 3 – Alternatives, River Falls, Cropley Falls, Mazza Woods, Carderock, The Palisades –
Holger Serrano, Callum Murray

Station 4 – Alternatives, Cabin John – Gail Tait-Nouri, Pat Bradley

Station 5 – Alternatives, Glen Echo, Town of Glen Echo, Bennochburn – Yasamin Esmaili,
Bob Simpson

Station 6 – Alternatives, Mohican Hills, Glen Echo Heights, Tulip Hills, Brookmont, Bon Air
Heights – Janie Tiedeman, David MacGregor

Station 5 – Comments – DPWT Staff

In addition, other Study Team members are needed to help staff the workshop stations as floaters.

The project schedule was updated to reflect the time required to develop the alternatives and prepare for the second public meeting. The revised project schedule is as follows:

| | |
|---|------------------------|
| Team Meeting – Public Meeting Preparation | Week of March 31, 2003 |
| Public Meeting #2 | April 23, 2003 |
| Team Meeting – Alternative Recommendation | May 2003 |
| Draft Project Prospectus | May 2003 |
| Final Project Prospectus | June 2003 |

Next the Study Team conducted a project tour to develop the Spot Improvement Alternative. Spot improvements include:

- MacArthur Boulevard at Windward Drive: Large expanse of paving with no separation between roadway and bike path. Signed for no parking, but parking all along path. Need to create separation of roadway and sidewalk/path. Not possible to connect MacArthur Bike Path to Capital Crescent Trail due to steep topography.
- MacArthur Boulevard at Walhonding Road: Parking lot conflicts with bike path. There is no clear entrance or exist, cars pull in along entire length of lot. Possibly narrow down entry to improve safety. Provide connection between bike path and canal path behind parking lot. Electrical overhead wires may be too low between Windward Drive and Walhonding Road along bike path. May need to increase clearance between wires and bike path.
- MacArthur Boulevard at Goldsboro Road: On Road Bike Path may be confusing in this intersection. Consider locating the bike path in the Town of Glen Echo right-of-way. Possibility of narrowing bike lane on roadway from 5' to 3', if necessary.
- MacArthur Boulevard at Wilson Lane/One Lane Bridge: Parking lot is basically the bike path. There is a bus stop locate here. Consider redesigning or eliminating the parking lot to clear conflict between cars and bikes. Add open space to separate bike path from roadway.
- MacArthur Boulevard and Ericsson Road: Radius at intersection is too large. Reduce the width of the intersection right turn lanes to slow traffic and keep vehicles off bike path.
- MacArthur Boulevard at Tomlinson: Illegal parking on bike path – many trucks observed. Consider reconfiguring parking of Captain's Market. Can a single entrance be established?

- MacArthur Boulevard and I-495 Capital Beltway: Consider adding lights under bridge for safety. Steep slopes just east of bridge – consider narrowing bike lane on roadway from 5' to 3'.
- MacArthur Boulevard at Clara Barton Parkway: Reduce pavement width and increase open space. Stop signs are not seen until right up on them. Consider pavement markings to alert drivers of approaching 3-way stop. Maybe add small amount of curb and gutter to keep cars on roadway at hot right onto Clara Barton Parkway when traveling eastbound on MacArthur Boulevard to keep vehicles off bike path. Signage at intersection is important to direct both vehicles bicycles and pedestrians.
- MacArthur Boulevard at Old Anglers Inn: Need proper signage and markings to indicate end of bike path and shared shoulder for on road bike traffic. Coordinate with C&O Canal National Historic Park's reconfiguration of parking lot for a better terminus of the bike path.

During the tour, the Study Team decided that all spot improvements would be incorporated into Alternatives 3 and 4 instead of developing a separate spot improvement alternative.

In summary, the following actions will be taken with regard to the next Project Team meeting and the second public meeting in April.

- Yasamin will schedule the next team meeting for the beginning of April.
- Comments on Alternatives 3 and 4 are due to Yasamin by Wednesday March 26, 2003.
- Kevin Brandt from the NPS will provide a copy of the preliminary design of the C&O Canal Historic Park parking lot across from Old Anglers Inn to facilitate coordination between the parking lot and the terminus of the bike path.
- URS will incorporate the spot improvement suggestions in the final plans for alternatives 3 and 4.
- Pat Bradley will have the Division of Traffic and Parking look at the intersection of MacArthur Boulevard and Tomlinson Road to see if the parking can be reconfigured and a single entrance established for Captain's Market.

The project tour ended at 2:30 PM. If you have any questions or suggestions for changes to this meeting summary, please contact me at (410) 785-7220.

MEMORANDUM

TO: All in Attendance and the File

FROM: Valorie Hennigan
URS Corporation

DATE: May 19, 2003

REFERENCE: MacArthur Boulevard Bikeway Improvements
May 13, 2003 Team Meeting
Meeting Summary

A meeting of the MacArthur Boulevard Bikeway Team was held on Tuesday, May 13, 2003 at 1:00 PM in the Montgomery County Executive Building in Rockville, Maryland. The purpose of the meeting was to review the Second Public Meeting comments, recommended the preferred alternative, and review the schedule to complete the study. The following individuals were in attendance:

| | |
|------------------|---------------------------------------|
| Holger Serrano | DPWT Division of Engineering Services |
| Yasamin Esmaili | DPWT Division of Engineering Services |
| Gail Tait-Nouri | DPWT Division of Engineering Services |
| Bob Simpson | DPWT Director's Office |
| David Adams | DPWT Division of Traffic and Parking |
| Ki Kim | M-NCPPC |
| Janie Tiedeman | URS Corporation |
| Valorie Hennigan | URS Corporation |

The meeting began with a brief discussion of the comments received to date from the Second Public meeting held April 23, 2003. The Team reviewed each comment and formulated an official response. The comments will become part of the project prospectus. The majority of comments were in support of Alternative 3: Five-foot Bike Lanes (both sides) and Separated Shared Use Path (south side). Yasamin briefly summarized the comments received by her office including:

- 13 letters in favor of Alternative 3
- 2 letters against the entire project
- Phone call from the Mayor of Glen Echo in favor of Alternative 2
- Several of the area bicycle groups have sent email and letters in favor of Alternative 3
- To date no neighborhood citizen groups have officially commented on the project alternatives.

The Study Team discussed the interaction with citizens at the second public meeting, the impact for both Alternatives 2 and 3, and discussed ASSHTO guidelines for designated bike lanes and shared use paths. The Study Team discussed the possibility of a three-foot, four-foot, and a five-foot widening to MacArthur Boulevard (each side).

The Team discussed whether a three-foot paved shoulder would be a better solution for MacArthur Boulevard, given the impacts associated with a five-foot bike lane. However,

because the base mapping is based on GIS five-foot contour intervals, it was decided that the width should be determined during the later phases of detailed design. To address the impacts due to the widening, the Study Team proposed a four-foot bike lane (each side) in the open section roadway, which is the minimum allowed by AASHTO. In addition, the Study Team confirmed that as much of the existing shared use path would be preserved to minimize impacts on the south side. Only substandard sections would require the bike path to be on a new alignment. Therefore, the cross section could remain consistent for the entire corridor.

From the discussion, The Study Team came to consensus and will forward a modified alternative 3 in the prospectus. The modified alternative will be:

Alternative 3 (modified): Four-foot Bike Lanes (both sides) along the open section of the roadway and Five-foot Bike Lanes (both sides) along the closed section of the roadway and Separated Shared Use path (south side) with a minimum five-foot separation between the bike lane and the shared use path where possible and a 42-inch barrier if not possible.

The recommended alternative will also include all of the spot improvements presented at the Second Public Meeting. One additional spot improvement was identified, a better connection to the Capital Crescent Trail at Sangamore Road. There is an existing entry to the Capital Crescent Trail at the Sangamore Road intersection, but it is not signed and may not be paved all the way to the trail. Gail Tait-Nouri will work with the NPS representative for the trail to see if improvements to the connection at Sangamore Road are being considered. Improvements to the intersection including signs, signals and crosswalks will be included in this spot improvement to provide safer access for bicyclists and pedestrians crossing MacArthur Boulevard to access the Capital Crescent Trail.

Yasamin will contact Dave MacGregor to get the ACOE recommendation before finalizing the Team's decision. A copy of the draft prospectus will be forwarded to the National Park Service for review and comment.

In addition, the following issues will be noted in the prospectus for consideration in the future project phases:

NPS Parking Lot: DPWT will work with NPS to coordinate their parking lot across from Old Anglers Inn to transition to on-road biking safely.

Additional Parking

Lots: DPWT will work with the ACOE to develop the spot improvements as part of the recommended alternative.

URS will develop the 1st draft of the project prospectus for the Study Team's review by May 27, 2003. All comments must be returned to Yasamin by June 10, 2003. Gail will assist Yasamin in consolidating all of the Team's comments before returning them to URS for any modifications. URS will then provide the final prospectus by July 24, 2003. The project prospectus schedule is as follows:

| | |
|------------------------------|---------------|
| Draft Prospectus (10 copies) | May 27, 2003 |
| Review (comments to Yasamin) | June 10, 2003 |
| Final Prospectus (10 copies) | July 24, 2003 |

In summary, the following actions will be taken with regard to the next Project Team meeting and the second public meeting in April.

- Yasamin will call Dave MacGregor with the Army Corp of Engineers to get consensus on the recommended alternative.
- Gail Tait-Nouri will contact the person responsible for the Capital Crescent Trail regarding proposed improvements at Sangamore Road and MacArthur Boulevard.
- Prospectus 1st draft to Yasamin by May 27, 2003 for distribution to the Study Team.
- Study Team review comments to Yasamin by June 10, 2003.
- Final Prospectus to Yasamin by July 24, 2003.

The Team meeting ended at 3:00 PM. If you have any questions or suggestions for changes to this meeting summary, please contact me at (410) 785-7220.

MEMORANDUM

TO: All in Attendance and the File

FROM: Valorie Hennigan
URS Corporation

DATE: August 28, 2003

REFERENCE: MacArthur Boulevard Bikeway Improvements
August 14, 2003 Team Meeting
Meeting Summary

A meeting for the MacArthur Boulevard Bikeway Study was held on Thursday, August 14, 2003 at 1:30 PM in the Montgomery County Executive Building in Rockville, Maryland. The purpose of the meeting was to review the Study Team recommendation for the study, review the draft project prospectus comments, and discuss the project prospectus schedule to complete the study. The following individuals were in attendance:

| | |
|------------------|---------------------------------------|
| Holger Serrano | Division of Capital Development |
| Yasamin Esmaili | Division of Capital Development |
| Gail Tait-Nouri | Division of Capital Development |
| David Adams | Division of Capital Development |
| Pat Bradley | Traffic and Parking Services Division |
| Chuck Kines | M-NCPPC |
| David MacGregor | ACOE |
| Alex Negron | NPS |
| Ryan Peabody | NPS |
| Janie Tiedeman | URS Corporation |
| Valorie Hennigan | URS Corporation |

The meeting began with a status update of the on-going spot improvements which include the installation of flex posts, rubber curbing, and crosswalks at Persimmon Tree, Seven Locks, and Clara Barton Parkway at Ericsson Road. The traffic counts recorded at five intersections along MacArthur Boulevard should be available next week. The user counts were done for five consecutive days, and did not include weekend counts. The user counts will be incorporated into the Purpose and Need Section of the prospectus. WASA is in the process of designing scrubber facilities at four or five locations along MacArthur Boulevard to deal with air quality. Kevin Brandt will be contacted to provide a contact name at WASA so that the locations of the scrubber facilities can be coordinated with future phases of this project.

Next, the Study Team discussed the two build alternatives for the study as follows:

- Alternative 2: Separated Shared Use Path (south side) to upgrade existing path to ASSTHO guidelines including a five-foot minimum open space separation between the Shared Use Path where possible and physical barriers where five-foot open space cannot be maintained.

- Alternative 3: Four-foot Bike Lanes (both sides) along MacArthur Boulevard and Separated Shared Use path (south side) with a minimum five-foot separation between the bike lane and the shared use path where possible and a 42-inch barrier if not possible.

The Study Team revisited the recommendations for the study based on costs, community input, and Study Team comments received for each alternative. The discussion of which alternative would be forwarded to Phase II began with a review of the purpose and need of the study and how each alternative addresses the needs. Some of the determining factors included cost, environmental impacts, connectivity and enhancement of the existing roadway. The difference between the costs of Alternative 2 and 3 is significant and therefore Alternative 2 might be more acceptable to the Council and the public.

Chuck Kines suggested that Jim Sebastian be contacted regarding plans for MacArthur Boulevard bike lanes from the Montgomery County Line into Washington DC. Most likely, DC will not be adding bike lanes to MacArthur Boulevard within the District. This discontinuity could create an abrupt change for bicyclists from Montgomery County to the District if Alternative 3 is constructed.

The Traffic and Parking Services Division suggested that whichever alternative is selected be constructed throughout the Study Area considering continuity and safety. It was suggested that Alternative 2 include a wider path with striping and signing. Alternative 2 currently includes an eight-foot width path. A wider path of ten to twelve feet might facilitate more use by commuter bicyclists as well as recreational bicyclists and pedestrians.

The US Army Corp of Engineers supports either Alternative 2 or 3. The Study Team has coordinated the proposed parking lot reconfiguration for the Wallhonding and Union Arch Bridge parking lots with the ACOE during the Study. The ACOE has not committed to the reconfiguration concepts for these parking lots, but will continue coordination during phase II.

Alternative 2 does not address the commuter bicyclists concerns of having on-road designated bike lanes. The public comments confirm that commuter bicyclists will not use the shared use path and prefer to ride on the road for speed. They feel the shared use path is unsafe because of conflicts between bicyclists and pedestrian users. However, the existing commuter bicycle volumes do not warrant the new bike lanes included with Alternative 3.

The Study Team selected Alternative 2 as the preferred alternative for the study. The Study Team discussed the possibility of phasing the project and the option of combining Alternative 2 and 3 where appropriate along MacArthur Boulevard. However, the Study Team decided to keep the alternatives separate and, during presentation to the Montgomery County Council, suggest the options of phasing the construction and improving portions of the roadway to include a wider shoulder to allow bicyclists more room for on-road cycling.

Chuck Kines will confirm with Ki Kim at Maryland National Capital Park and Planning and Alex Negron and Ryan Peabody will confirm with Kevin Brandt at the National Park Service that they support Alternative 2 as the recommended alternative.

Next, DPWT and URS staff discussed the review comments for the Draft Prospectus received so far. The general comments received to date will be incorporated into the final prospectus. However, some of the comments were made based on Alternative 3 being the recommended alternative, so Gail Tait Nouri and Holger Serrano will review these comments to see if they still apply to Alternative 2. Yasamin Esmaili will send these comments to URS on Monday August 18, 2003.

Finally, the Study Team discussed the schedule for completing the Project Prospectus. The recommended alternative is scheduled to be presented to Montgomery County Transportation and Environmental Subcommittee on September 18, 2003. The final Prospectus will be delivered to Montgomery County Division of Capital Development for review prior to the presentation to the Montgomery County Transportation and Environmental Subcommittee.

Montgomery County DPWT will create the PowerPoint presentation for the T&E presentation. URS will send graphics from the first public meeting PowerPoint presentation, the typical sections from the plan sheets, the photo rendering and the open space treatments for Alternative 2.

In summary, the following actions will be taken with regard to completing the project prospectus.

- Holger and Gail will review the Draft Prospectus comments and determine which ones are still applicable
- Yasamin will send the comments to URS on Monday, August 19, 2003.
- Chuck Kines will confirm the recommendation of Alternative 2 with Ki Kim at Maryland National Capital Park and Planning.
- Alex Negron and Ryan Peabody will confirm the recommendation of Alternative 2 with Kevin Brandt at the National Park Service.
- Based on comments received from DPWT on August 19, 2003, URS will prepare the final prospectus and deliver 10 copies on September 3, 2003.

The Team meeting was adjourned at 3:15 PM. If you have any questions or suggestions for changes to this meeting summary, please contact me at (410) 785-7220.