

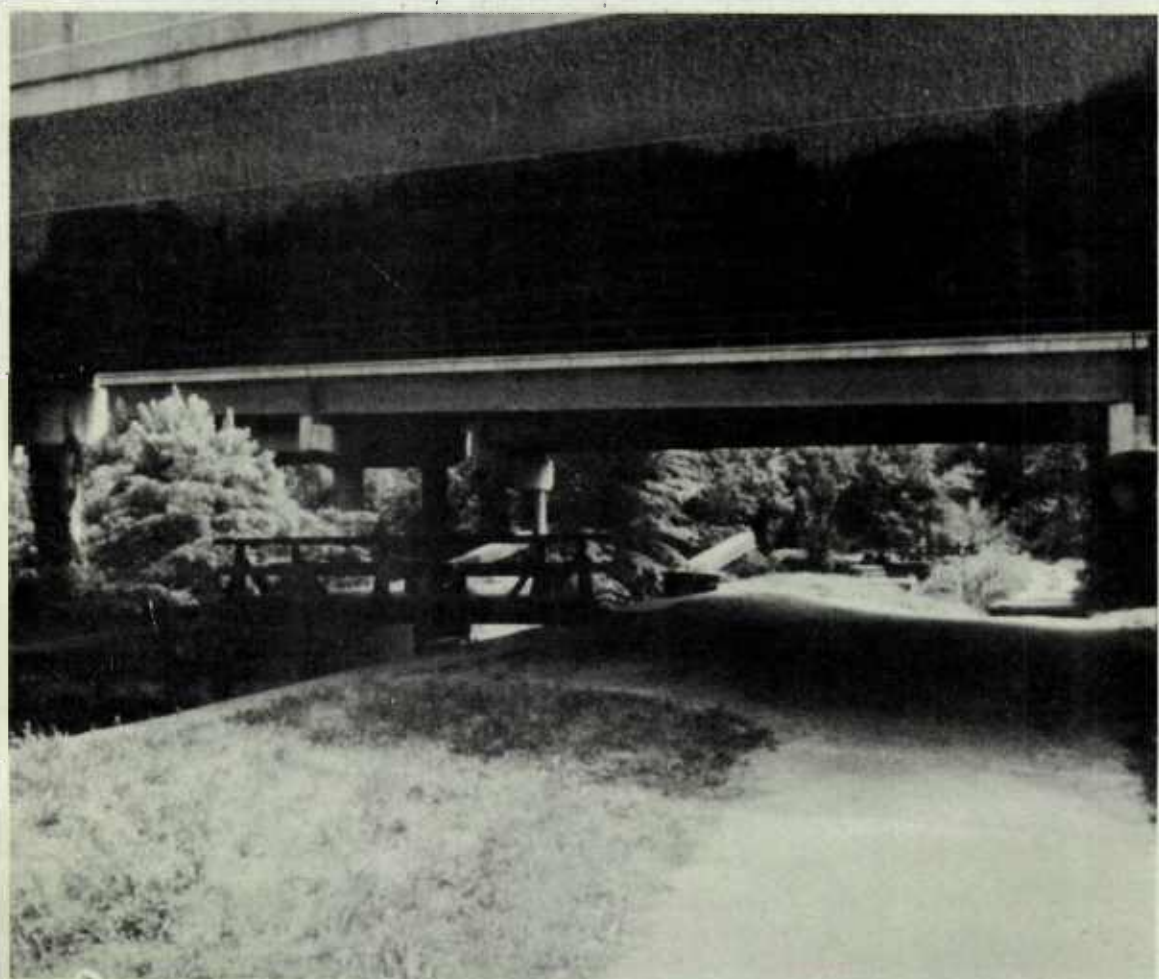
# SECTION 4(F) STATEMENT

CONTRACT NO. M-355-201-372

INTERSTATE ROUTE 495

CABIN JOHN BRIDGE (#15.101)  
over the C&O CANAL.

MONTGOMERY COUNTY, MARYLAND



prepared by  
U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

and  
MARYLAND DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION

FEDERAL HIGHWAY ADMINISTRATION  
REGION III

INTERSTATE ROUTE 495  
CABIN JOHN BRIDGE  
OVER THE C & O CANAL

ADMINISTRATIVE ACTION

SECTION 4(F) STATEMENT

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
AND  
STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION

SUBMITTED PURSUANT TO 42 U.S.C. 4332 (2) (C), 23 U.S.C. 128 (a)  
49 U.S.C. 1653(F), 16 U.S.C. 470(F)

M. S. Caltrider  
State Highway Administrator

3/13/84

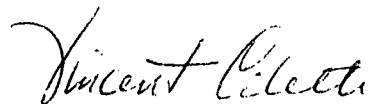
DATE



Hal Kassoff, Director  
Office of Planning and  
Preliminary Engineering

3/26/84

DATE



Federal Highway Administration

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I. DESCRIPTION OF PROPOSED ACTION

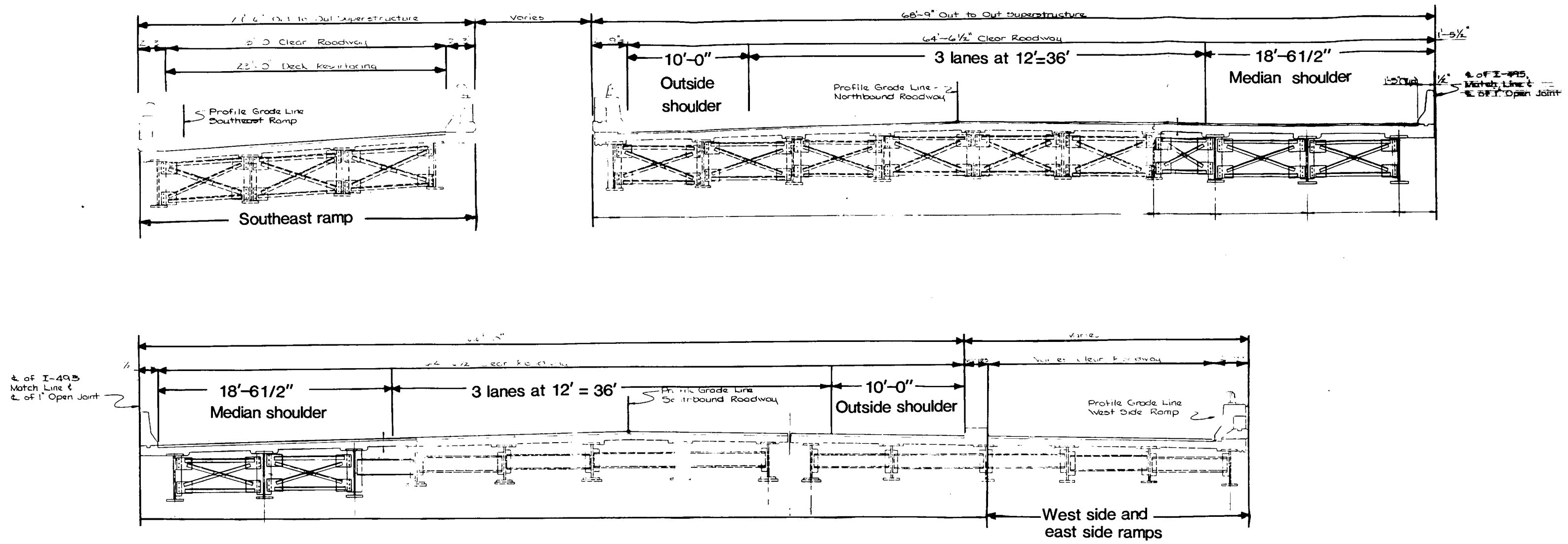
Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 U.S.C. 1653 (F)) requires that the proposed use of any land from an historic site of National, State, or local significance be given particular attention. Final action requiring the taking of such land must document that there are no feasible and prudent alternatives to its use. In addition, a full evaluation of measures to minimize harm must be made.

The project consists of repairs and safety improvements for the I-495 Cabin John Bridge (Bridge No. 15101) over the C & O Canal and eastbound George Washington Memorial Parkway, and rehabilitation and redecking for Bridge No. 15100 over the Potomac River.

This 4(f) Statement concerns the Cabin John Bridge over the C & O Canal. The existing dual structures of this bridge consist of three lanes of traffic with two 3-foot shoulders. Repairs to the bridge would consist of joint repair and safety improvements to the parapets. The proposed action would require the closing of the existing median opening between the dual bridges thereby providing 10-foot shoulders on the outside and approximately 18' - 6 1/2" of median shoulder. There would be 64' - 6 1/2" of clear roadway for three 12-foot lanes northbound and southbound. (See Figure 1).

New support piers will be constructed, in line with existing piers, within the existing alignment of I-495 over the C & O Canal property and adjacent to the tow path.

In order to meet Federal Highway Administration (FHWA) safety standards for deck rehabilitation on interstate projects, the bridge rehabilitation of the Potomac River Bridge should provide



CROSS SECTION OF BRIDGE NO. 15101 AFTER CONSTRUCTION (LOOKING SOUTH)

Scale 1.15=10'

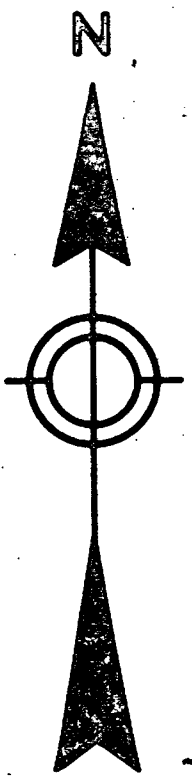
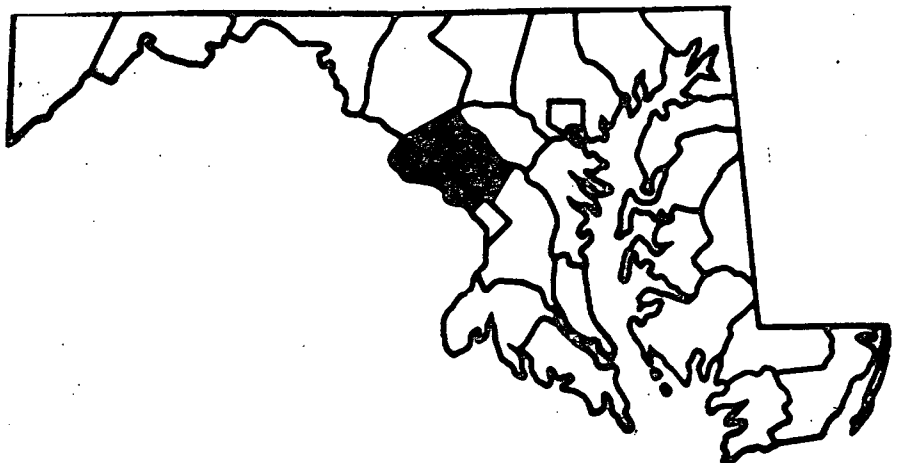
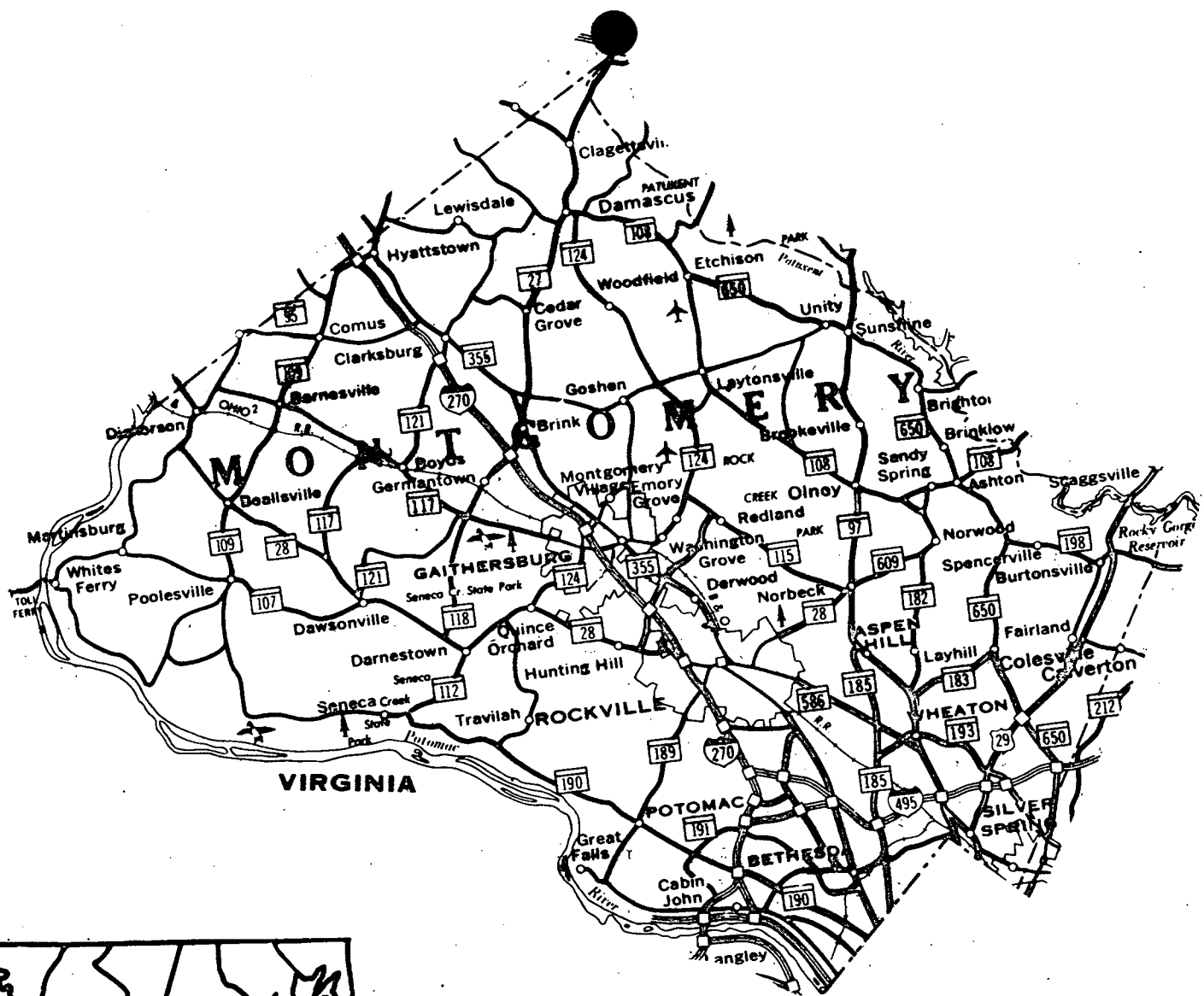
FIGURE 1

REVISIONS	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION DIVISION OF BRIDGE DEVELOPMENT	
	RPAIRS AND SAFETY IMPROVEMENTS - DUAL BIDGES NO. 15101 ON I-495 OVER GEO. WASH. MEMORIAL PARKWAY-EASTBOUND AND THE C&O CANAL	
	SCALE: AS SHOWN DATE	CONTRACT: M-800-301-372
	DESIGNED BY: S.P. HIC	DRAWN BY: K.A.M.
	CHECKED BY:	
		SHEET No. 02

6  
10-foot shoulders on each side outside of the three traffic lanes and the median should be closed.

Traffic will need to be redirected during the work on the Potomac River Bridge. Because there is not sufficient room to return traffic to a normal pattern between the Potomac River Bridge and the Cabin John Bridge, traffic will need to be re-directed as far as the Cabin John Bridge. Consequently, the median on the Cabin John Bridge will also have to be closed, in order to provide the necessary roadway width without requiring work outside the existing structure.

This proposal provides for proper maintenance of high volume traffic during construction with minimal construction costs, no right of way acquisition, and minimal effects on approach roadways and ramps. The project was determined to be a Non-Major Action on January 4, 1979.



MAP 1

## II. DESCRIPTION OF SECTION 4(F) RESOURCE

The existing bridge structures span the canal, towpath, and a portion of Lock 13. Since the canal is listed on the National Register of Historic Places, closing the median above the canal and constructing new support piers next to the towpath require a Section 4(f) evaluation.

The canal, begun in 1828 and completed in 1850, runs parallel to the Potomac River for approximately 184 miles. Beginning at the tidewater at Georgetown and continuing to Cumberland, the canal was intended to provide an economical trade route between the eastern seaboard and the trans-Allegheny West.

The canal was a primary mode of commercial transportation until 1924 when numerous natural and financial failures forced the canal company into receivership at which time the B & O Railroad, the canal company's major competitor, emerged as the majority owner of the company's bond. As the necessary repairs were not made, operation was not resumed and the canal era ended.

The canal gained official status as part of the National Park System in 1961 when President Eisenhower designated a portion of the canal from Seneca to Cumberland a national monument. The concept of conservation was broadened by the 1971 Congressional authorization for the establishment and development of the Chesapeake and Ohio Canal National Historic Park.

Owned and managed by the National Park Service, the canal, towpath, and much of the adjacent parkland are in use all year with the peak visitation period occurring between April and October. The towpath is the major visitor use facility. Accord-



ing to NPS, four categories of visitors use the park-tourists, short-term towpath users, long-term towpath users and non-towpath users. 9

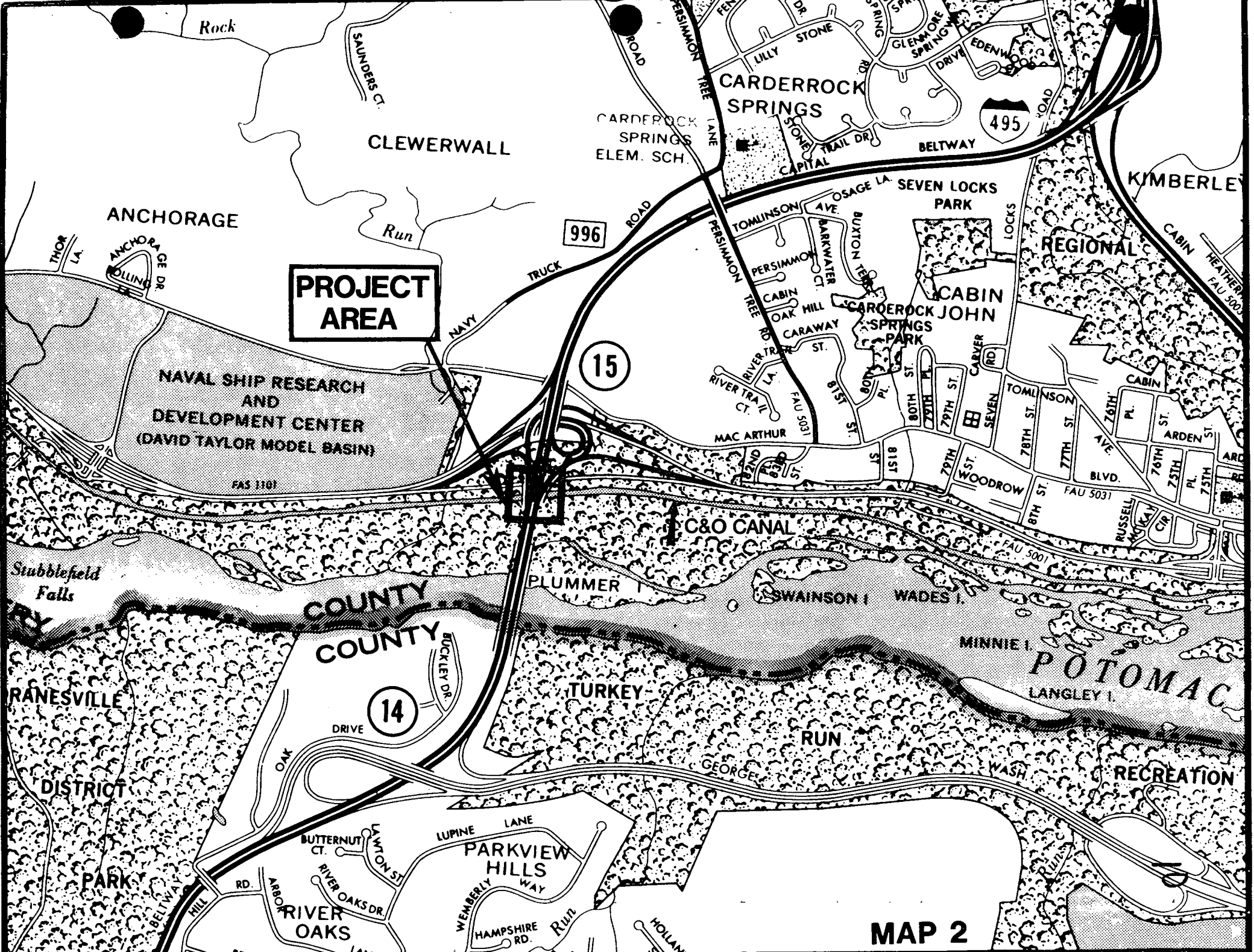
Tourists are often historians or canal buffs interested in seeing how the canal looked and worked during its operation.

The short-term towpath user is a day user spending 15 minutes or all day in the park walking, hiking, biking, jogging, riding horseback, or studying nature and history. Many of the short-term towpath users are residents of the adjacent communities.

The long-term towpath users consist of visitors such as the Boy Scouts who belong to the five councils in the surrounding region. In groups of ten to twenty, they hike, bike, or ride horseback along the entire 184 miles and generally spend at least one night in the park. The non-towpath user is a picnicker, a canoeist, a park camper, as well as a short term towpath user who is attracted by the parklands and the adjacent Potomac River.

The project study area, (see map 2) includes a segment of the historic Seven Locks Section (Locks 8 through 14) of the canal area. This section is located in the Palisades District (extending 37 miles from Georgetown to Edwards Ferry in Montgomery County) which is estimated to have had 3,000,000 visitors in 1982.

The immediate vicinity of the Cabin John Bridge is designated Zone B - a Cultural Interpretive Zone. Those areas along the canal which are designated Zone B contain historic resources but will not be completely restored, and are expected to support a lower density of visitors than other areas along the canal such as Zone A. This is due to the poor accessibility of those resources, and the lack of adjacent parkland for construction of



**PROJECT  
AREA**

NAVAL SHIP RESEARCH  
AND  
DEVELOPMENT CENTER  
(DAVID TAYLOR MODEL BASIN)

**15**

**14**

996

495

MAP 2

adequate visitor facilities.<sup>1</sup>

Activities occurring in Zone B include hiking, camping, picnicing, canoeing and fishing. The existing dual structures span a segment of the canal's Seven Locks sections, including part of Lock 13 (which is currently in disrepair). The area is accessible by foot, off Riverside Road and via a bridge upstream from Cabin John Bridge. Area parking is located off the George Washington Parkway and at Lock 10.

---

1

Recreational Use of the Upper Potomac River, (Md. Department of Natural Resources Capital Programs Administration) 1979.

### III. IMPACTS ON THE 4 (F) PROPERTY

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This Section 4(f) Evaluation considered two alternates: the No-Build Alternate and Alternate 1, the rehabilitation of the existing dual structures. Alternate 1 has been selected for implementation.

#### NO-BUILD:

This alternate consists of utilizing the existing bridges with no improvements except normal maintenance. The structures would remain in a deteriorated, unsafe condition and would not relieve the deck and shoulder width problems. Normal maintenance would do nothing to address these problems, and would eventually result in closing the bridge to vehicular traffic causing it to utilize the local road networks which could not accommodate the 110,000 Average Daily Traffic (ADT - 1999 is predicted to be 162,000). In addition, the deterioration of the structure would result in unaesthetic and unsafe conditions in the park from falling debris.

#### ALTERNATE 1: (Selected Alternate)

This alternate consists of repairing the bridge joints and making safety improvements to the parapets. In accordance with current safety criteria, the existing median opening would be closed, thereby providing 10 foot shoulders on the outside and approximately 18' 6 1/2" of median shoulder. A total of 64' - 6 1/2" of clear roadway would be provided for three (3) 12' - 0" lanes. Jersey-type parapets and median barriers would be installed in both directions. Closing the existing median would provide for the safe and continuous maintenance of all lanes of I-495 high volume traffic.

Noise from vehicles crossing uneven bridge joints currently

13  
exceeds the FHWA noise abatement criteria (of 70dBA) for uses applicable to the towpath, and reaches the towpath area through the opening between the existing bridges.

Replacement of the uneven joints and closing the median opening as proposed should result in reduced noise levels beneath the bridge. Using the state-of-the-art in the abatement of highway traffic noise, it is impossible to predict the degree of noise level improvement. Therefore, noise levels may not be reduced below the noise abatement criteria (70dBA). In addition, the latest technology currently offers no mitigation measures for this situation.

This alternate will not require the acquisition of right of way from the surrounding parkland; however, since the use of parkland would be necessary, a temporary construction permit from the National Park Service will be required. The permit will include appropriate mitigation as agreed to during the final design stage.

The vegetation is extremely sparse beneath the existing bridges. Closing the existing 42-foot 6 inch median opening will reduce the amount of light beneath the structures. Some loss of vegetation is expected as a result of the loss of light and lack of moisture.

Currently, there is a problem in stormwater drainage from the roadway to the area underneath the bridge. Repairing the bridge will eliminate this situation by incorporating appropriate stormwater management practices.

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Access to the area will not change. Traffic control plans will provide for safe and continuous maintenance of traffic through the project area during construction. Precautions will be used to preclude the chance of objects falling onto the towpath during construction. The bridge repair work should not require closing of the towpath.

Various methods of redecking were considered to minimize impact on the park.

Redecking could be accomplished without closing the median by either widening the bridges to the outside, or by widening the bridges toward the middle, but leaving an opening (approximately 17' - 11") in the middle.

Widening to the outside would be economically unfeasible since additional right of way, including parkland, would be needed. In addition, outside widening would cause interference with the interchange ramps that join both sides of the bridges over the C & O Canal and MacArthur Boulevard.

Widening toward the median, without closing it, could possibly be accomplished in one of two ways.

- 1) By shifting one lane of traffic to the other side of the roadway, 12' lanes could be maintained. However, five stages of construction would be involved and single lanes at times would be confined by barriers which would be dangerous and could lead to traffic backups.
- 2) Traffic could possibly be shifted about on one side with four stages of construction, but lanes would be dangerously narrow (11' maximum) and single lanes confined by barriers would also be required.

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Closing the median would require only three stages of construction, and thus, three re-alignments of traffic. Each time traffic is re-aligned uncertainty is created in the minds of the motorists thereby causing an unsafe situation. It is considered in the public interest to re-route traffic as little as possible.

In addition, when the median is closed, obstacles such as median barriers, bridge parapet-end posts, and closure walls are either removed or moved as far away from traffic as possible. This results in a safer roadway configuration.

Re-opening the median after deck replacement is possible, but this would cancel the safety benefits of removing the obstacles and would add to the cost of the project.

For these reasons, AASHTO and Federal Highway Administration highway safety design recommends for median closure.

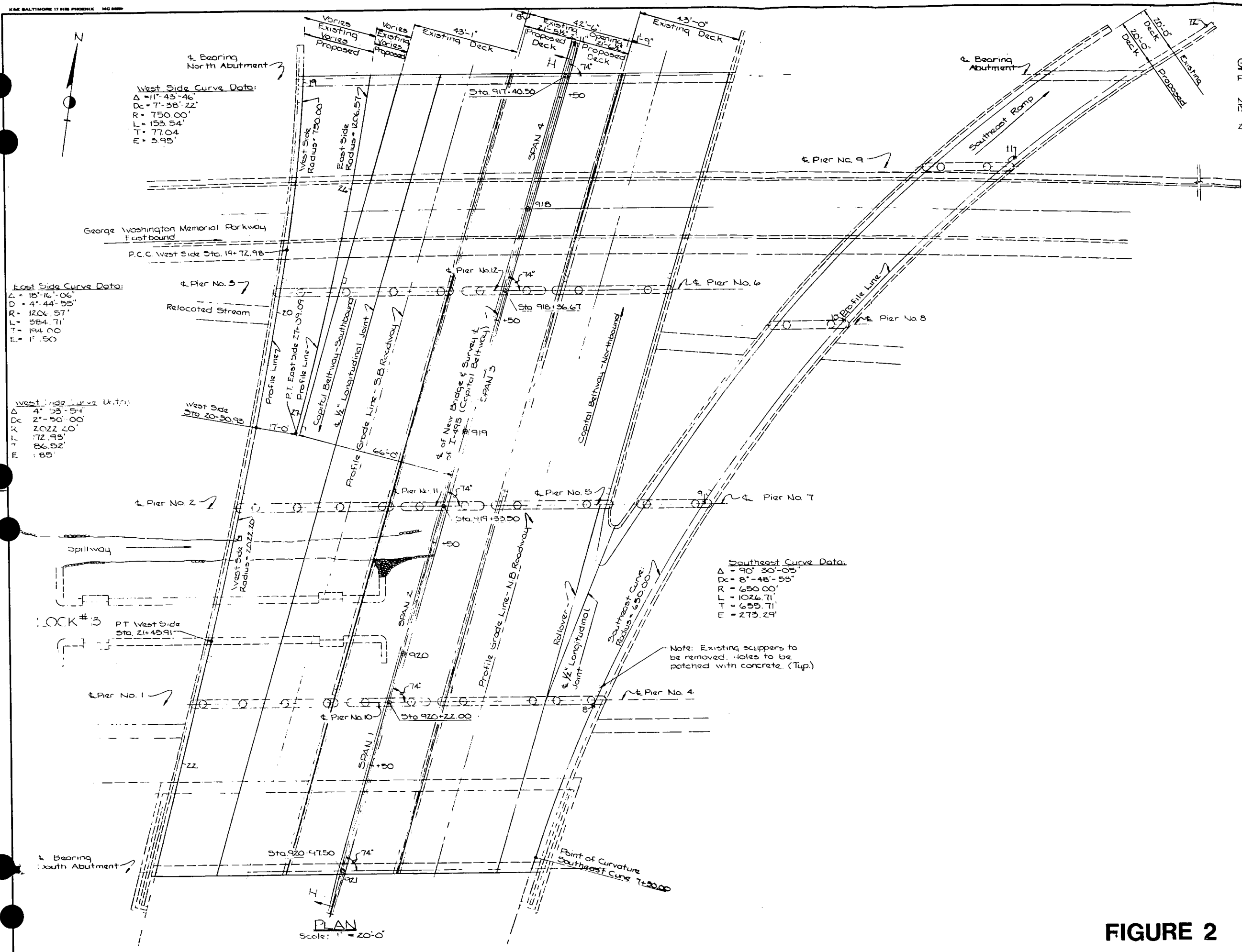
F.H.W.A. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	See Title Sheet		

10

**GENERAL NOTES**

For General Notes, see Sheet No.

- Notes:
- 1) For Section H-H, see Sheet No. , except lighting.
  - 2) Existing structure shown dashed.



**FIGURE 2**

REVISIONS	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION DIVISION OF BRIDGE DEVELOPMENT		
	WIDENING AND DECK RESURFACING FOR DUAL BRIDGES NO. 15101 ON I-495 OVER GEO. WASH. MEMORIAL PARKWAY-EASTBOUND AND THE C&O CANAL GENERAL PLAN		
	SCALE: AS SHOWN DATE		CONTRACT M-555-501 57Z
	DESIGNED BY S.P.HO DRAWN BY K.A.W. CHECKED BY		
File No.		Pocket No.	Folder No.
SHEET No.		Of	
INDEXED			



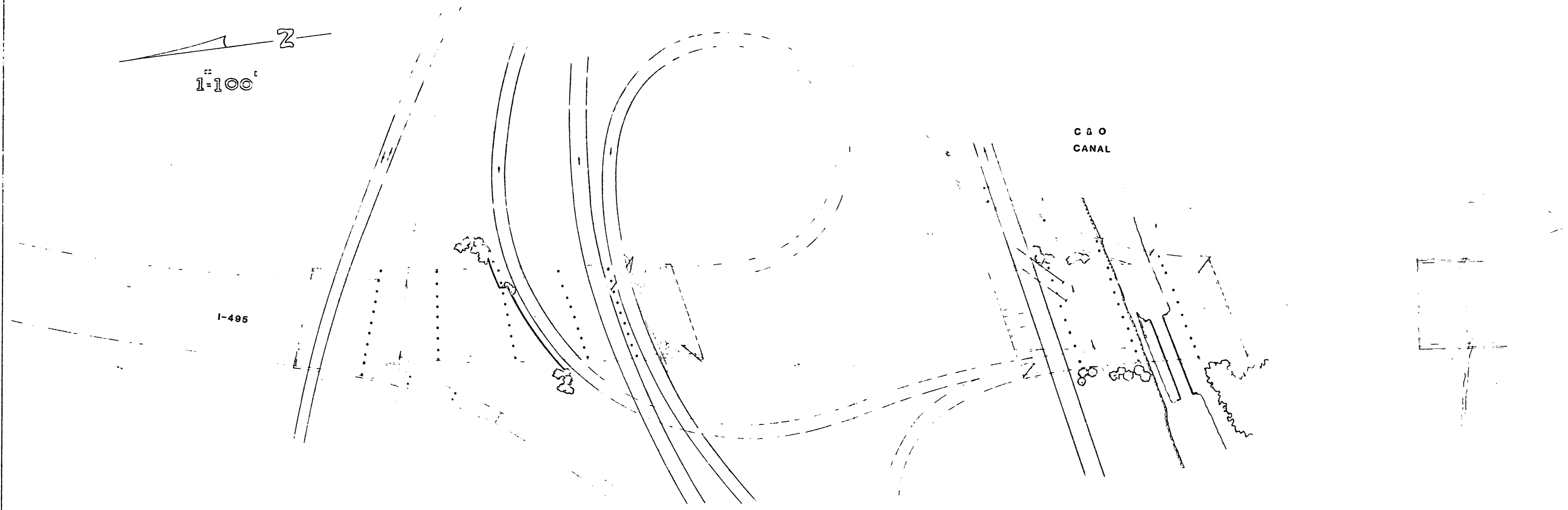


FIGURE 3



IV. AVOIDANCE ALTERNATES AND CONSEQUENT IMPACTS

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The only possible way to avoid use of park property is the no-build alternative. Because of the extent of deterioration of the bridge joints, any repairs to the bridge would require the use of park property, regardless of widening. Equipment would need to gain access to the area under the bridge at some point during construction.

The no-build alternative, while not requiring use of the park, would not completely avoid impacting it, as described in Section III, page 6. Again, should deterioration result in closing of the bridge, the local road network would not be able to handle the high levels of traffic.

V. MITIGATION

The State Highway Administration and the National Park Service, in cooperation with the Federal Highway Administration have agreed to the following mitigation measures.

Protection of the Canal

To protect the towpath, canal, and Lock 13 during construction of the support piers, the contractor will be required to excavate, construct, and backfill as necessary in the vicinity of the canal to restore the area in accordance with the approved restoration plans. The contract specifications will require the protection of all National Park Service property, avoidance of all historic structures, and maintenance of the water level in the canal during all phases of construction. In addition, the contractor will be required to prevent any debris from falling into the canal and to remove any debris from the vicinity of the canal at the completion of construction each day. Prevention of debris from falling into the canal or towpath will be accomplished by placing a protective plywood shield on the bottom flanges of the main girders. All restoration activities will be coordinated with the NPS.

Landscape Plan

Extensive coordination with the National Park Service resulted in a request for a design scheme to minimize the abrupt change of scenery for towpath users, and for drivers on the George Washington Parkway as they pass under the bridge.

19

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A landscape plan has been developed, in accordance with the National Park Service specifications, which attempts to maintain a park-like environment under the bridge, which corrects the stormwater and erosion problems near the canal (caused by I-495), and which includes the repair of the stone wall of the lock structures (this damage was also caused by stormwater from I-495). The landscape plan was approved by the National Park Service in February, 1984.

The retaining wall extending east from the flume exit will be reconstructed with approximately 150 linear feet of dry laid stone. Approximately 1,375 cubic feet of the dry laid stone flume walls at the west end of the flume, on both sides, will be reconstructed. Approximately 40 linear feet of the stone retaining wall on the Canal's south bank will be repaired. Approximately 350 linear feet of the towpath will be resurfaced with standard towpath aggregate (as specified by the National Park Service), and the adjacent disturbed area will be reseeded.

Because accurate historical restoration of the stone walls of the lock is important, a qualified stone mason will be required for the work. A mason with previous experience in repairing the C & O Canal was contacted, and recommends the salvage of existing stone as much as possible. When new stone is needed, he recommends using the brown stone such as that found at the Stoney Hurst Quarry in Bethesda, Maryland. The existing stone in the locks was made of brown stone from the Seneca Rocks (Maryland) Quarry which is no longer in operation.

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The area under the bridge, including the existing drainage swales, will be fine graded and blanketed with approximately 1' deep, river-washed, local 6" - 12" stone. Immediately adjacent to the George Washington Parkway (eastbound), the pull-off will be paved with local stone blocks laid on a sand bed,. The east and west edges of the underspan area will be replanted and the disturbed area will be reseeded.

The north and south concrete abutment slopes of Bridge 15101 and the north abutment slope of the Potomac River span will be patched and repaired. The scupper and drainage systems of the bridges will be repaired to eliminate the stormwater problems from the bridge deck.

The underside of Bridge 15101 will be painted a light reflective color.

#### Minimizing Congestion

As agreed in a field meeting with the National Park Service, a dedicated lane on I-495 into Maryland from George Washington Memorial Parkway will be made a part of the project. This lane, which will reduce congestion on the Parkway, will be extended over the Pomotac River and connected to the exit ramp of the southbound parkway.

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VI. COORDINATION

Early coordination (December, 1978 - January, 1980) with the Maryland Historical Trust resulted in an agreement by the Trust to consider the National Park Service the lead agency on this project. A copy of the 4(f) Evaluation was sent to the Trust, the National Park Service and other appropriate agencies in June of 1982.

In accordance with Section 106 of the National Historic Preservation Act of 1966, the State Historic Preservation Officer was requested to render an opinion of effect as stipulated in 36 CFR 800. The State Historic Preservation Officer determined the project will have no adverse effect and the Federal Highway Administration concurred in that determination. (See Letter in Correspondence Section dated March 8, 1984 from the Maryland Historical Trust). The Advisory Council on Historic Preservation has concurred with this determination of no adverse effect.

From the earliest planning stages of this project, the SHA has coordinated with the NPS concerning design plans, impacts on the canal and towpath, and mitigation measures for these impacts. The issues raised by NPS (i.e., the necessity of closing the bridge median, bikeway construction, and provision of light under the bridge) have been resolved through numerous meetings, letters, and phone calls.

The SHA developed a landscape plan to address these issues. This plan was approved by the NPS (in February, 1984). The landscape plan is described in Section V of this Document.

CONCLUDING STATEMENT

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Based upon the above considerations, it is determined that there is no feasible and prudent alternative to the use of land from the Chesapeake and Ohio Canal National Historical Park, and that the proposed action includes all possible planning to minimize harm to the C & O Canal Historic Park from such use.

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VII. CORRESPONDENCE





United States Department of the Interior

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NATIONAL PARK SERVICE  
NATIONAL CAPITAL REGION  
1100 OHIO DRIVE, S. W.  
WASHINGTON, D.C. 20242

L31(NCR-LUCE)

JUL 21 1983

Mr. William F. Schneider, Jr.  
Chief, Bureau of Project Planning  
Maryland Department of Transportation  
707 North Calvert Street, P.O. Box 717  
Baltimore, Maryland 21203

Dear Mr. Schneider:

Thank you for your letter of May 3 forwarding the proposed mitigation package for the redecking of the American Legion Bridge over the Potomac River.

Pursuant to our meeting of May 26 and our subsequent discussions with the park staff, we find the mitigation measures satisfactory with some minor modifications.

We request that you note on your drawings that the paving blocks should be set in a sand/cement mix at a 3:1 ratio. The stone to be utilized shall be a river-washed stone of large aggregate size. From the second set of piers on the east side of the canal to the third set of piers on the west side of the canal, the stones should be eliminated directly around the lock structures. In their place we request that you substitute our standard towpath aggregate (specifications enclosed).

The stone within 20 to 30 feet of the towpath on either side of the canal should be set in a sand/cement mix. Replacement for the damaged Seneca sandstone capstones on the canal lock structure shall match the original capstones.

We also request a review of the erosion control measures underneath the bridge structures along the length of the project.

We appreciate this opportunity to comment on your proposal and look forward to working with your staff during the review of your preliminary contract documents.

Sincerely,

*Lowell V. Sturgill*

Regional Director, National Capital Region

1. These provisions will be incorporated into the contract.

TOWPATH STANDARDS

Areas or sections of towpath where two way vehicular traffic is permitted, a maximum surface width of 16 feet is required, with shoulders.

The towpath in general will be maintained to an approximate 12' width and allow for sufficient drainage. Drainage where possible shall be towards the Potomac River, otherwise towards the canal prism and should be elevated 1 inch to every 4 feet.

At any time when more than 12 inches of fill material is required to bring the towpath to grade or to develop appropriate drainage, an approved clay material will be required. The existing surface will need to be scarified in order to properly receive the new materials and create a bond. The earth fill materials would be applied in 6 inch layers and sufficiently compacted.

A layer of not less than 6 inches of towpath surfacing aggregate would be applied and depending on conditions, may need to be installed in two equal layers with proper compaction.

SPECIFICATIONS

TOWPATH SURFACING AGGREGATE

PART I - General

1-1: Description: This work shall pertain to the delivery of the specified material in the quantities estimated to the C & O Canal National Historical Park, to be stockpiled at (Park to determine).

1-2: Permits: The successful bidder shall comply with all pertinent load limitations, as may apply, while in transit over State or District roads and shall procure any required permits required by the respective authority involved prior to the start of hauling operations.

PART III - Materials

2-1: The material shall be bank run gravel only, and shall be a well graded mixture of granular materials meeting ASSHO specification M-145 Group A-2, Sub-group A-2-6. No stone shall be larger than four inches on its longest dimension.

2-2: The material shall be free from all vegetative debris; debris from construction sites, fly ash, or balled clay lumps. Upon delivery, the material shall be in a loose and friable state and free of excessive moisture.

2-3: The material shall be periodically inspected, as delivered and may be rejected on visual inspection, subject to lab analysis.

2-4: Coarse aggregate retained on the No. 10 sieve shall consist of hard, durable particles of gravel. Materials that break up when alternately frozen and thawed or wetted and dried shall not be used. Coarse aggregate shall have a percent of wear of not more than fifty, (50). Fine aggregate passing the No. 10 sieve shall consist of natural sand, and fine mineral particles passing the No. 200 sieve.

2-5: The fraction passing the No. 200 sieve shall not be greater than two-thirds of the fraction passing the No. 40 sieve. The fraction passing the No. 40 sieve shall have a liquid limit of not greater than twenty-five, (25), and a plasticity index of not greater than eight or less than four.

Sieve designation

Percent by weight passing

2 inch	100
1 inch	70-100
3/4 inch	55-100
3/8 inch	38-90
No. 4	28-80
No. 10	20-65
No. 20	12-50
No. 40	8-38
	2-15



# United States Department of the Interior

28

NATIONAL PARK SERVICE  
NATIONAL CAPITAL PARKS  
1100 OHIO DRIVE SW.  
WASHINGTON, D.C. 20242

IN REPLY REFER TO:

INVITATION NO. INV. -3000-5-0040

EARTH FILL MATERIAL

ADDENDUM NO. 1

JAN 29 1975

JANUARY 28, 1975

TO ALL INVITATION HOLDERS:

This Addendum forms a part of the Contract Documents and modifies them as noted below. Acknowledge receipt of the addendum on the reverse side of Bid Form (Standard Form 35). Failure to do so may subject Bidder to disqualification from consideration of Contract Award.

STANDARD FORM NO. 36, page 5 of 6, the Ideal analysis is deleted in its entirety and the following analysis is to be inserted:

The soil shall range according to the following analysis:

	1	<u>IDEAL</u> 2	3
a. Clay	25%	30%	35%
b. Sand	35%	42%	50%
c. Silt	15%	28%	40%

ALL OTHER TERMS AND CONDITIONS SHALL REMAIN THE SAME.



United States Department of the Interior

29

NATIONAL PARK SERVICE  
NATIONAL CAPITAL REGION  
1100 OHIO DRIVE, S. W.  
WASHINGTON, D.C. 20242

K14(NCR-LUCE)

AUG 6 1982

Mr. William F. Schneider, Jr.  
Chief, Bureau of Project Planning  
State Highway Administration  
707 North Calvert Street, Room 310  
Baltimore, Maryland 21202

Dear Mr. Schneider:

We are pleased to respond to Mr. Caltrider's letter of June 11 requesting our comments on the Section 4(f) evaluation of the rehabilitation of the Interstate-495 bridges over the Potomac River, Chesapeake and Ohio National Historical Park (C&O Canal NHP) and George Washington Memorial Parkway (GWMP).

We would recommend the following modifications to assist you in obtaining Departmental concurrence. The discussions relative to the requirements by the National Park Service for permit issuance and existing rights-of-way should be clarified. According to our records, the original construction of the interstate system over the C&O Canal in this area did not include the granting of any permanent rights-of-way or easements to the State. The authorizations for construction of the bridge structures were granted by permit. Similarly, we have also noted that the references to the use of parkland on page 8 under Section IV. AVOIDANCE ALTERNATES AND CONSEQUENT IMPACTS, should be corrected. Alternate I will require the use of parkland and a permit from the National Park Service for the installation of support piers and deck structure.

Pg. 7

Pg. 8

The discussions regarding noise levels for rehabilitation of the bridges indicate that the bridges, after rehabilitation, will not meet the minimum Federal Highway Administration (FHWA) noise level requirements of (70dba). The document should define the existing noise levels, the projected noise levels and to what degree the noise levels will be improved underneath the structure. At a minimum, the rehabilitation of the bridge structure should include measures to insure compliance with FHWA noise level criteria. If this cannot be accomplished, the document should indicate to what degree noise level standards can be met and what measures would additionally be required to achieve minimum standards.

Pg. 7

With respect to the discussions regarding storm water management in the areas underneath the bridge structures, we request that this discussion be expanded to

include the crossing over the Potomac River and the GWMP. Existing conditions indicate severe problems in certain areas, with respect to erosion, gullying and non-vegetated areas which require varying degrees of stabilization and modification to maintain park resources. In some instances, this may include channelization and drainage control or the addition of rip-rap underneath the bridge structures within existing or proposed non-vegetated areas.

Pg. 10  
11

In addition, under Section V Mitigation, we request that you include the agreement reached in our last field meeting to explore the possibility of providing a dedicated lane onto the beltway into Maryland from the northbound GWMP (Virginia) which will minimize the congestion problems on the parkway, particularly during both reconstruction work and as a permanent solution. It is our understanding that this fourth lane could be carried over the Potomac River Bridges and connected into the exit ramp of the southbound parkway (Maryland).

Pg. 11

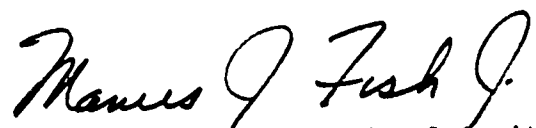
We would also request that provisions be incorporated into the contract document to insure the continued maintenance of water levels in the canal during all phases of construction.

Pg. 9

In addition to the comments noted, we are enclosing a list of suggested editorial changes to assist you in final preparation of the document.

We thank you for the opportunity to provide comments and if we may be of any further service, please advise.

Sincerely,



Regional Director, National Capital Region

Enclosure

ENCLOSURE

1. On page 2, the discussions pertaining to the inclusion of a bikeway should be deleted entirely. These discussions do not pertain specifically to the requirements of the Section 4(f) documents.
2. On page 7, in the third paragraph, first line, the words, "mostly weeds," should be deleted. The sentence should read "the vegetation is extremely sparse beneath the existing bridge."
3. On page 7, in the fifth paragraph, fourth line, the word, "minimize," should be changed to "preclude."
4. On page 10, under the Section entitled "Protection of the Canal," the words, "original condition as completely as possible," in the fourth and fifth lines, should be modified to read "in accordance with the approved restoration plans."
5. On page 11, in the second paragraph, the first three lines should be deleted. The sentence as worded is incorrect since the park is not closed at dark.
6. On page 11, the reference to masonry pavers should be deleted. The restoration plans provided the State, as part of our transmittal of January 11th, did not specify this type of restoration.

ALL CHANGES HAVE BEEN MADE:

1. Page 2
2. Page 7, third paragraph
3. Page 7, fifth paragraph
4. Page 9, third paragraph
5. Page 10
6. Page 11



**Maryland Department of Transportation**

State Highway Administration

Lowell K. Bridwell  
Secretary

M. S. Caltrider  
Administrator

May 3, 1983

RE: Contract No. M 355-501-372  
I-495 - Rehabilitation at  
Cabin John Bridge  
No. 15101

Mr. Manus J. Fish, Jr.  
Regional Director  
National Capital Region  
National Park Service  
1100 Ohio Drive, S.W.  
Washington, D.C. 20242

Dear Mr. Fish:

Based on your comments on the Section 4(f) evaluation of this project, on subsequent telephone conversations with Jeff Knoedler and in accordance with the National Park Service specifications, we have completed a detailed landscape plan for the area around Lock 13 over Bridge No. 15101.

As shown on the enclosed 50 scale drawing, and on drawing No. 419 dated December 25, 1981 from the National Park Service, the retaining wall extending east from the flume exit will be reconstructed with approximately 150 linear feet of dry laid stone. Approximately 1,375 cubic feet of the dry laid stone flume walls at the west end of the flume on both sides will be reconstructed. Approximately 40 linear feet of the stone retaining wall on the canal's south bank will be repaired. Approximately 350 linear feet of the towpath will be resurfaced, and the adjacent disturbed area will be reseeded.

The area under the bridge, including existing drainage swales, will be fine graded and blanketed with approximately 1 foot deep river-washed local 6"-12" stone. Immediately adjacent to the George Washington Parkway (eastbound), the pull-off will be paved with local stone blocks laid on a sand bed. The east and west edge of the under-span area will be replanted and the disturbed area will be seeded.

The north and south concrete abutment slopes of Bridge 15101 and the north abutment slope of the Potomac River span will be patched and repaired. The underside of Bridge 15101 will be painted a light reflective color.

My telephone number is (301) 659-1130

Teletypewriter for Impaired Hearing or Speech  
383-7555 Baltimore Metro — 565-0451 D.C. Metro — 1-800-492-5062 Statewide Toll Free  
P.O. Box 717 / 707 North Calvert St., Baltimore, Maryland 21203 - 0717



Mr. Manus J. Fish, Jr.  
May 3, 1983  
Page 2

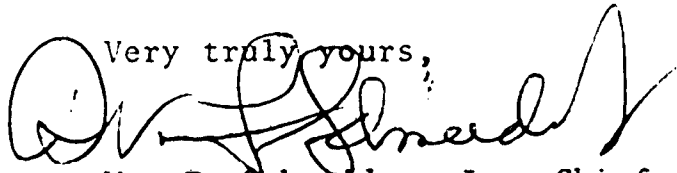
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The contract specifications will require:

- a) National Park Service permission for contractor access to the underspan area for pier construction;
- b) protection of all National Park Service property and avoidance of all historic structures; and,
- c) restoration of the site to its original condition plus the mitigation measures described above.

We request your concurrence with this landscape plan as appropriate mitigation by June 6, 1983. Thank you for your prompt attention to this matter.

Very truly yours,



Wm. F. Schneider, Jr., Chief  
Bureau of Project Planning

WFS:LH:bh  
Enclosures (2)

cc: Mr. K. Duerling  
Ms. K. Laffey  
Mr. J. Schneider  
Mr. L. Ege, Jr.

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Maryland Historical Trust

March 8, 1984

Mr. William F. Schneider, Jr.  
Bureau of Project Planning  
State Highway Administration  
Maryland Department of Transportation  
707 North Calvert Street  
Baltimore, Maryland 21202

RE: Contract No. M 355-201-372  
I-495, Cabin John Bridge  
over the C&O Canal

Dear Mr. Schneider:

Thank you for your letter of February 27, 1984, to J. Rodney Little which included plans (sheets 86, 87, 88) and the special provisions which have been accepted by the National Park Service. We concur with your determination that there will be no adverse effect on the C&O Canal National Historical Park for that portion of the project. Since this is a determination of no adverse effect, you must request the comments of the Advisory Council.

This determination of effect does not include archaeology. Our determination regarding archaeology will follow.

Sincerely,

George J. Andreve  
Environmental Review  
Administrator

GJA/bjs

cc: Ms. Amy Schlagel  
Mr. Richard Hughes  
Mr. Jeff Knoedler  
Mrs. George Kephart  
Ms. Anita Hall  
Mr. Mark Walston



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TORREY C. BROWN, M.D.  
SECRETARY

JOHN R. GRIFFIN  
DEPUTY SECRETARY

STATE OF MARYLAND  
DEPARTMENT OF NATURAL RESOURCES  
MARYLAND GEOLOGICAL SURVEY  
THE ROTUNDA  
711 W. 40TH STREET, SUITE 440  
BALTIMORE, MARYLAND 21211

KENNETH N. WEAVER  
DIRECTOR  
MARYLAND GEOLOGICAL SURVEY  
EMERY T. CLEAVES  
DEPUTY DIRECTOR

Division of Archeology  
338-7236

12 March 1984

Mr. William F. Schneider, Jr., Chief  
Bureau of Project Planning  
State Highway Administration  
707 N. Calvert Street, 3rd Floor  
Baltimore, Maryland 21202

RE: Cabin John Bridge  
M3555-201-372

Dear Mr. Schneider:

As per your 9 February 1984 request, we have reviewed the subject project with respect to archeological potential. We understand that, with the exception of three proposed piers, construction will take place from the existing bridge deck. As for the piers, ground disturbance will be limited to six areas measuring roughly ten square feet each. Given the limited area to be affected and the prior construction-related impact (i.e., disturbance of the upper two feet of original surface followed by the deposition of circa five feet of fill), we concur that further archeological involvement in the project is not warranted.

If I can be of additional assistance on this matter, please do not hesitate to contact me.

Sincerely,

Tyler Bastian  
State Archeologist

TB:DCC:lw

cc: Louis Ege  
Rita Suffness  
Lisa Hite

BIBLIOGRAPHY

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