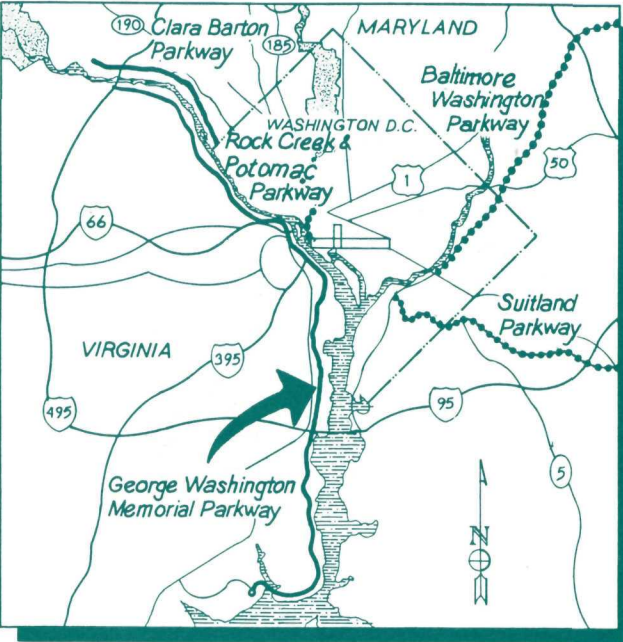


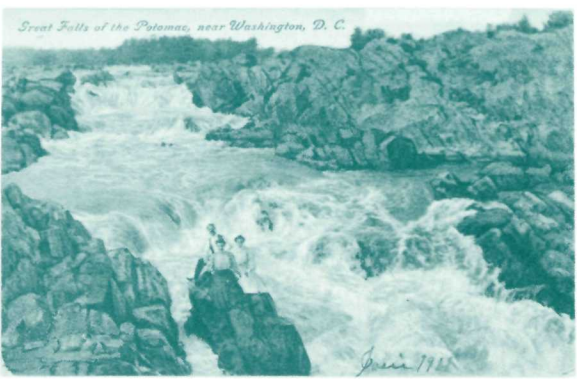
PARKWAYS PAST, PRESENT, AND FUTURE

Driving George Washington Memorial Parkway from end to end provides a thorough lesson in twentieth-century scenic highway design. Beginning at Mount Vernon, one progresses from a narrow, winding, largely undivided concrete roadway to the wider traffic lanes, more generous curves, and continuous medians near National Airport. North of Washington, the motorist encounters the sweeping curves, widely separated road alignments, and soaring steel and concrete bridges of postwar parkway construction. Crossing the Potomac on the Capital Beltway to reach Clara Barton Parkway provides a stark reminder of the usual course of late-twentieth century American highway development and underscores the skill and foresight of the parkway's original designers.



George Washington Memorial Parkway was documented in 1993-94 by the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER), a division of the National Park Service, U.S. Department of the Interior. The project was sponsored by the NPS Park Roads and Parkways Program. Measured drawings, large-format photographs, and written history are available to the public through the HABS/HAER collection at the Library of Congress.

This leaflet was produced by the Historic American Buildings Survey/Historic American Engineering Record, a division of the National Park Service, U.S. Department of the Interior, in conjunction with the National Preservation Institute.
Text by Timothy Davis
Design by Timothy Davis/Todd Croteau



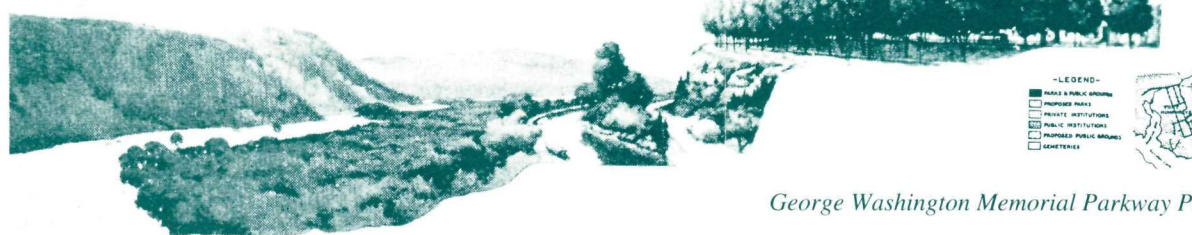
Postcard view of Great Falls, (ca. 1900)

GREAT FALLS AND THE POTOMAC PALISADES

Great Falls has been a popular tourist destination since George Washington's time. Along with the dramatic natural scenery, the Patowmack Canal, which Washington built around the falls in the 1790s, was considered an engineering marvel, attracting visitors from around the world. Washington's canal was short-lived, but its successor, the Chesapeake and Ohio Canal, provided nineteenth-century excursionists with a popular and relaxing method of reaching the falls and enjoying the surrounding woodlands. Construction of electric trolley lines to Great Falls and Glen Echo at the beginning of the twentieth century made the falls and the Potomac Palisades even more accessible.

Unfortunately, the Palisades were also accessible to stone-quarrying operations, which threatened to reduce the imposing cliffs to rubble by the end of the nineteenth century. The 1901 Senate Park Commission urged Congress to preserve the Palisades and develop a series of winding parkways along the banks of the Potomac between Washington and Great Falls.

Senate Park Commission Report (1902)



George Washington Memorial Parkway Proposal, 1930 (NARA)

THE CAPPER-CRAMTON ACT OF 1930

By the 1920s, Great Falls and the Potomac Palisades were threatened not just by quarrying, but by a private power company's plans to build hydroelectric dams above and below the falls. To prevent this danger, conservationists, historical associations, and civic groups worked with Representative Louis C. Cramton and Senator Arthur Capper to secure passage of a bill authorizing the creation of George Washington Memorial Parkway as an elongated regional park stretching along both sides of the Potomac River between Great Falls and Mount Vernon.

A parkway drive similar to Mount Vernon Memorial Highway would follow the Maryland shoreline. Existing roads would be used on most of the Virginia side to avoid costly construction along the Palisades. A proposed bridge at Great Falls and a ferry between Fort Washington and Fort Hunt would allow motorists to make a grand loop tour of the region's natural and historic features. This aspect of the plan was eventually shelved, but new bridge-building technologies enabled parkway designers to route the parkway along the Virginia palisades.



1785

George Washington forms Patowmack Company to build canal around Great Falls

1828

Construction starts on Chesapeake and Ohio Canal

1800s

Stone quarried from Potomac Palisades

1901

Senate Park Commission urges protection of Great Falls and Potomac Palisades

1920s

Hydroelectric dams proposed near Great Falls

1930

Capper-Cramton Act authorizes George Washington Memorial Parkway



Parkway Construction near Key Bridge, 1949 (DCL)

GEORGE WASHINGTON MEMORIAL PARKWAY

George Washington Memorial Parkway was an ambitious undertaking. Along with the technical difficulties involved in constructing roadways along the rugged banks of the Potomac, the project required close cooperation between federal, state, and local agencies. The National Park Service assumed overall responsibility, with the BPR again lending its road-building expertise. Funding problems plagued the parkway throughout its development, which continued in fits and starts for almost forty years.

By the late 1940s, the parkway had only been extended as far north as Spout Run. An extra arch was added to Key Bridge to accommodate the parkway drive at Rosslyn. The Spout Run Bridge, completed in 1959 to carry southbound traffic on the main parkway, provides a striking example of the artistic possibilities of modern concrete bridge design.



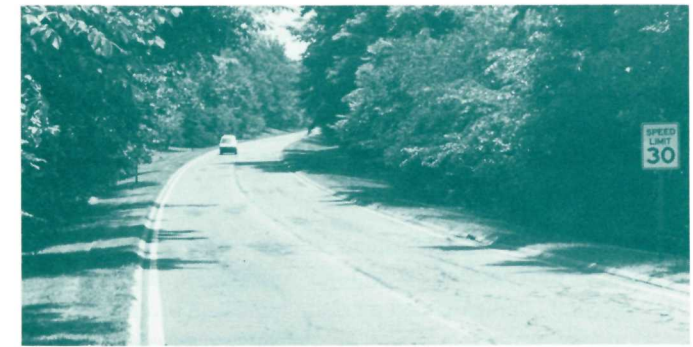
Spout Run, 1968 (CFA/Alexander)



President Eisenhower opening parkway to Langley, 1959 (DCL)

The northern portions of George Washington Memorial Parkway were mostly built in the 1950s-1960s. The longest section, between Spout Run and Langley, Virginia, was officially opened by President Dwight Eisenhower in 1959.

During the 1930s, parkways were seen as ideal ways to combine recreational development, scenic preservation, and traffic relief. By the 1960s, however, high-speed motorways were generally regarded as incompatible with natural resource protection. Preservationists played an important role in preventing the parkway's roads from extending all the way north to Great Falls, as originally planned. While the National Park Service acquired most of the Potomac shoreline between Washington and Great Falls, road construction stopped at the Capital Beltway on the Virginia side and just north of the Beltway in Maryland. The Fort Washington leg was abandoned for economic and political reasons. The final road segment, between Chain Bridge and the Maryland border, was opened in 1970.



Clara Barton Parkway, 1993 (HAER/Davis)

A TEXTBOOK EXAMPLE OF PARKWAY DESIGN

Like its predecessor, George Washington Memorial Parkway was heralded as a model for state-of-the-art parkway design. While Mount Vernon Memorial Highway was built for motorists traveling at 35-45 mph, postwar parkway designers calculated for speeds of 50-60 mph.

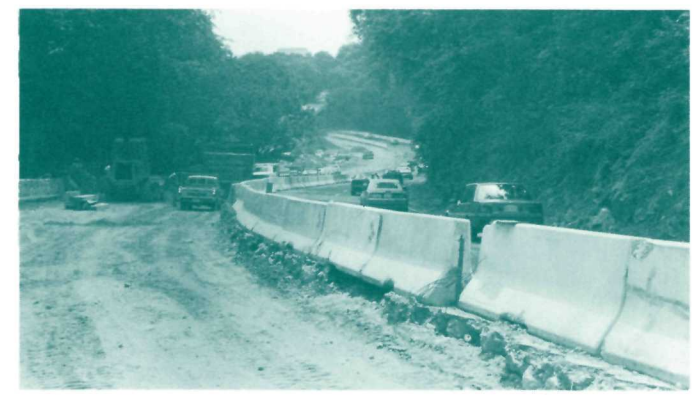


Donaldson Run Bridge, 1994 (HABS/Boucher)

Postwar sections have longer, more sweeping curves, continuous safety medians, and soaring concrete bridges spanning the steep ravines of the Potomac Palisades. Access was even more strictly controlled through cloverleafs and bridges. Variable-width medians and different alignments for north- and southbound traffic allowed designers to fit the parkway more closely to the terrain and helped preserve attractive natural scenery. The area north of Key Bridge was considered one of the best examples of postwar parkway design. Images of this stretch appeared in numerous highway engineering textbooks.



Looking North from Key Bridge, 1953 (NARA)

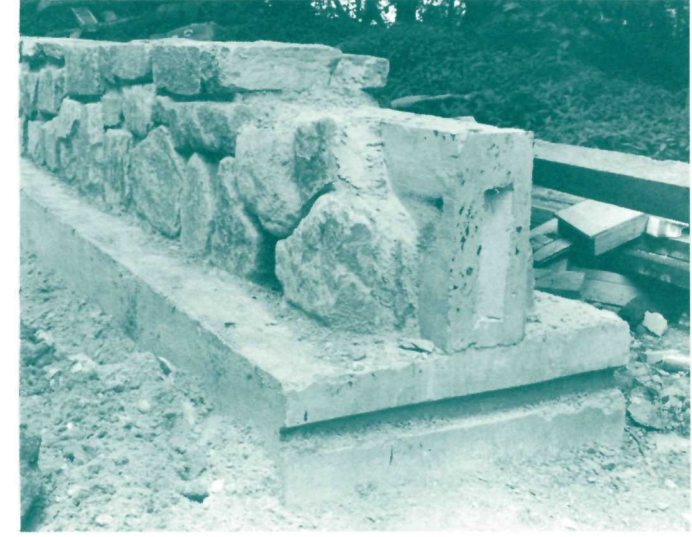


Reconstruction near Spout Run, 1993 (HAER/Davis)

CHANGE AND CONTINUITY

George Washington Memorial Parkway retains its original character to a considerable degree, but it has undergone a number of changes to accommodate shifting public demands and growing traffic burdens.

The construction of National Airport required a major relocation of the original Mount Vernon Memorial Highway, which passed near the site of today's Metro station. The section between the airport and I-395 was later expanded to six lanes to accommodate increased traffic. Traffic concerns also forced parkway officials to update the circulation pattern on Columbia Island and, most recently, to widen the parkway between Spout Run and Theodore Roosevelt Memorial Bridge. The National Park Service's concern for maintaining the parkway's visual character can be seen in the hand-laid stone facings on the extensive concrete guard walls required by modern safety regulations.



Stone-covered concrete guardwall, 1993 (HAER/Davis)

MORE THAN A ROADWAY

George Washington Memorial Parkway is more than just an attractive roadway. The original commemorative function remains strong, as civic and military memorials continue to be added to the parkway landscape. These range from traditional bronze statues such as "Two Jima" and the monuments lining the approach to Arlington Cemetery to abstract modernist sculptures and groves of memorial trees. The parkway also offers a variety of recreational opportunities. Its picnic areas and marinas continue to be enormously popular with tourists and locals alike. A multi-use trail was built between Washington and Mount Vernon in the 1970s and extended north to Rosslyn in the 1980s. As a wildlife refuge, the parkway serves as a permanent or temporary home to a wide variety birds and mammals. The parkway also preserves many important historical features, including Washington's Patowmack Canal, Arlington House, and the remains of several Civil War forts.



Navy and Marine Memorial (HAER/Davis)



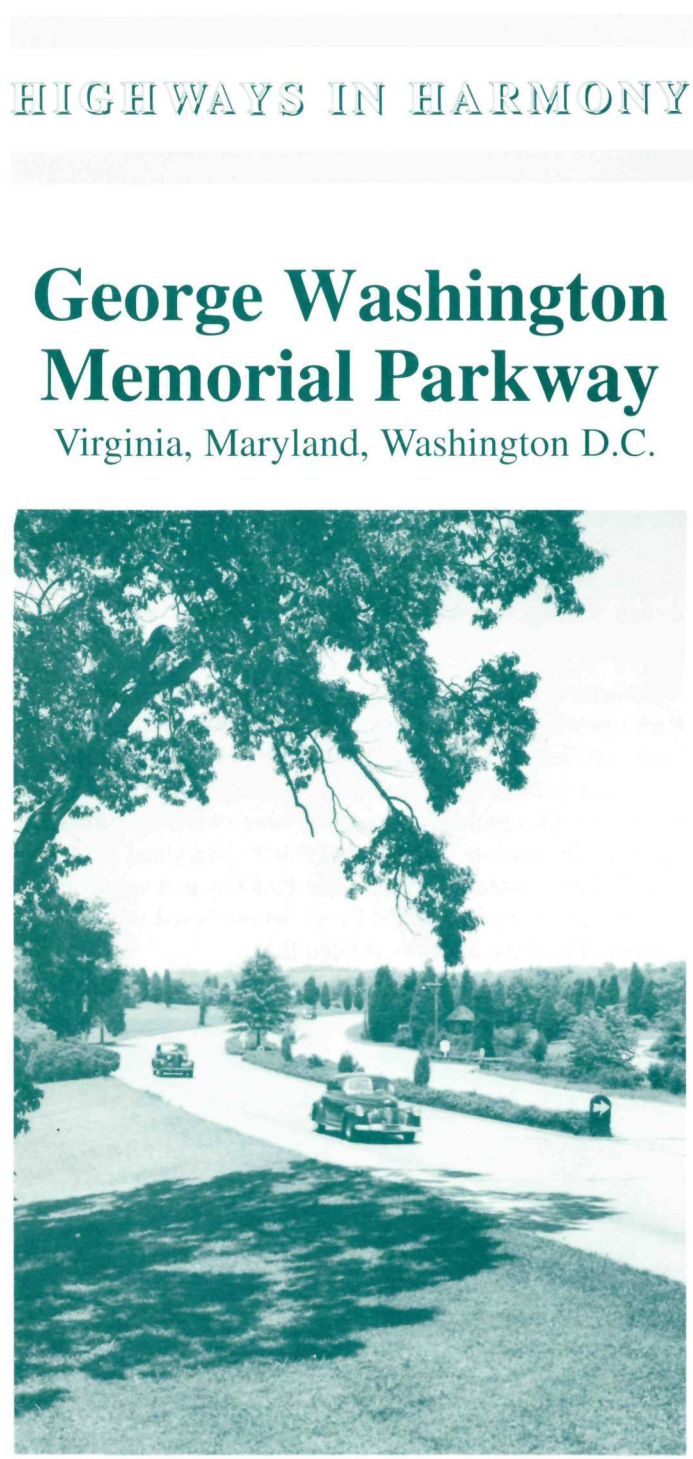
Multi-use trail (HAER/Davis)



Dyke Marsh (HAER/Lowe)



LBJ Memorial (HAER/Davis)



George Washington Memorial Parkway, 1946 (NARA)

U.S. DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

A MODEL PARKWAY

George Washington Memorial Parkway is an important landmark in the history of American park development and highway design. The parkway serves as a memorial to the nation's first president, preserves invaluable historic, recreational and natural resources along the Potomac River, and performs a vital role in the transportation system of the nation's capital. It contains over 7,000 acres of park land and almost 40 miles of scenic roadways. The parkway also encompasses a variety of recreational facilities, two wildlife refuges, numerous historic sites, and an array of civic and military memorials.

George Washington Memorial Parkway was built in stages between 1929 and 1970. The first segment, Mount Vernon Memorial Highway, stretches from Arlington Memorial Bridge to Mount Vernon and was completed in 1932. As the first modern motorway built by the federal government, it popularized advanced highway engineering and landscape design features and strongly influenced parkway and highway construction throughout the country.

The northern sections of George Washington Memorial Parkway were mostly completed in the 1950s-1960s and were also considered masterful examples of parkway design. The roads in these later sections are distinguished by their broader width, continuous medians, more sweeping curves, and soaring concrete bridges. In 1989 the Maryland road segment was renamed Clara Barton Parkway in honor of the founder of the American Red Cross, whose house is preserved near the parkway at Glen Echo.



Aerial Views of Mount Vernon Memorial Highway (L) and George Washington Memorial Parkway (R), 1994 (HABS/Boucher)



Mount Vernon in 1886 (Harper's Weekly)

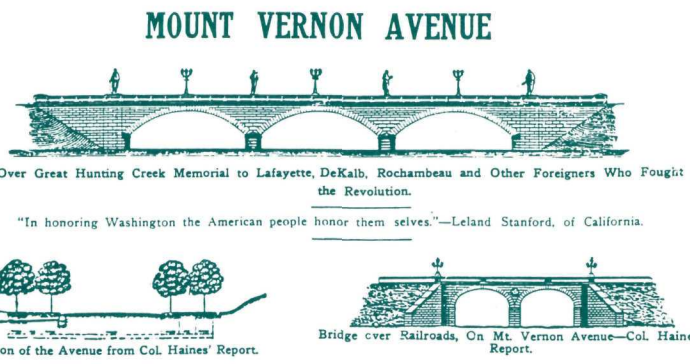
MOUNT VERNON: "THE AMERICAN MECCA"

Mount Vernon was a popular tourist destination long before the invention of the automobile. Many visitors journeyed to Mount Vernon during Washington's lifetime. Tourist traffic increased after his death in 1799, as the estate passed through the hands of various relatives and gradually fell into disrepair. It was purchased by the Mount Vernon Ladies' Association in 1858, restored, and officially opened to the public. The trip became more popular after the Civil War, when regular steamboat service from Washington enabled visitors to bypass the region's notoriously poor roads.

Nineteenth-century Americans regarded Mount Vernon as a national shrine. The journey to Mount Vernon was cast as a patriotic pilgrimage that would improve the visitor's character and strengthen the nation by fostering greater appreciation for the ideas, events, and values of the early republic. Popular magazines and tourist guidebooks recounted the lore and legend of Mount Vernon and the surrounding area, celebrating Alexandria as Washington's "home town" and characterizing the old estate as "the Nation's Shrine," "The Mecca of America," and "The Home and Tomb of the Immortal Washington." Senator Leland Stanford captured the spirit of the era, declaring it "a sacred duty of all Americans to visit Mount Vernon, as they leave that sacred spot purer and more patriotic American citizens."

A NATIONAL ROAD TO MOUNT VERNON

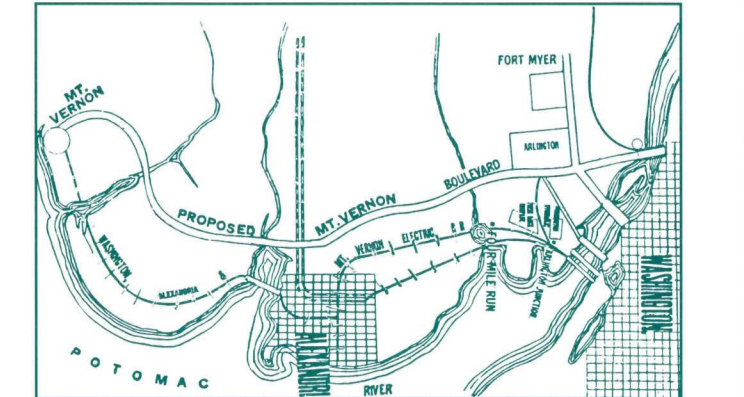
The first proposal for a national road from Washington to Mount Vernon originated with a group of Alexandria businessmen during the 1880s. Mixing patriotism with local boosterism, the Mount Vernon Avenue Association lobbied the federal government to build a grand formal boulevard lined with imposing statues and memorials. The proposed avenue would follow the high ground between Arlington Cemetery and Mount Vernon, providing panoramic views of the surrounding countryside and avoiding the marshes and estuaries of the Potomac River. Each state would be granted a section to decorate with monuments honoring its most famous citizens. Statues of presidents and vice-presidents would line the roadway near Arlington Cemetery. Supporters cast the avenue as "an American Appian Way or Westminster Abbey" that would remind Americans of their noblest achievements and inspire future generations to even greater heights of civic and military glory.



Mt. Vernon Avenue Association (1913)

Congress ignored the more grandiose aspects of this proposal, but in 1889 it ordered the Army Corps of Engineers to study the possibility of linking Washington and Mount Vernon with a formal, tree-lined boulevard. The engineers produced detailed surveys for several alternate routes, along with plans for bridges and landscape treatment. The 1901 Senate Park Commission also endorsed the idea of a national road to Mount Vernon, but provided no specific suggestions for landscape development.

While these early proposals had little immediate effect, they laid the groundwork for the creation of Mount Vernon Memorial Highway and George Washington Memorial Parkway. The exuberant patriotic rhetoric was eventually toned down, but historic and commemorative concerns strongly influenced twentieth-century parkway designers.



Mt. Vernon Avenue Association (1913)

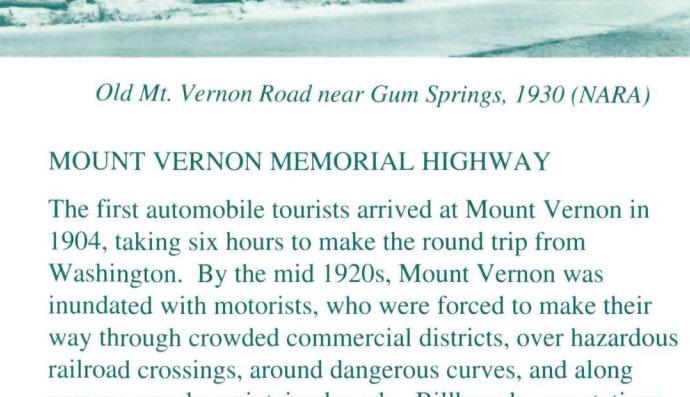
THE ELECTRIC RAILWAY

Construction of the Washington, Alexandria & Mount Vernon Electric Railway between 1892 and 1896 side-tracked the avenue project and dealt the original avenue association a blow from which it never recovered. The trolley was cheap, convenient, and enormously popular, immediately replacing the steamboat as the preferred means of visiting Mount Vernon. Local riders also used it to commute to Washington and picnic along the Potomac River.



Electric Railway near Dyke Marsh, 1930 (NARA)

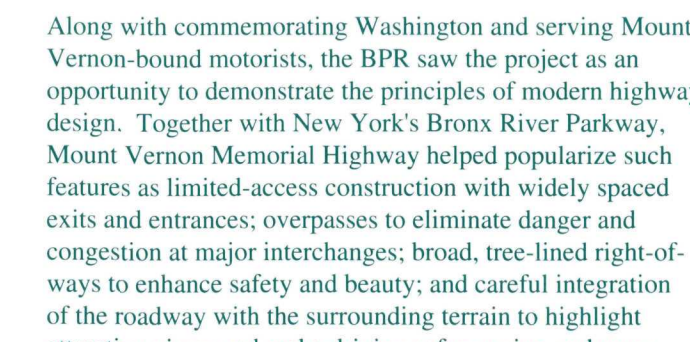
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AMERICA'S MOST MODERN MOTORWAY

When it was completed in January 1932, Mount Vernon Memorial Highway was widely praised as "America's Most Modern Motorway." Highway engineers, planners, and the popular press celebrated the parkway as the ultimate blend of modern engineering, landscape architecture, historic preservation, and patriotic sentiment.



Old Mt. Vernon Road near Gum Springs, 1930 (NARA)

LANDSCAPE DESIGN

Mount Vernon Memorial Highway's designers went to great lengths to produce an attractive, naturalistic parkway landscape. For most of its length, the parkway was built on an entirely new alignment through largely undeveloped terrain. The roadway followed the landscape's natural contours, winding in gentle curves through attractive woodlands and along the banks of the Potomac River.

Parkway designers took advantage of the region's natural beauty to produce a richly varied landscape. Towering hardwood forests alternate with broad grassy areas accented with clumps of eastern red cedar and occasional dogwoods. Existing forests were selectively cut to improve growth and provide sweeping vistas. Intimate woodland scenes give way to extensive views over the Potomac River. Subtle curves were added to direct the motorist's vision and spare attractive stands of older trees. North of Alexandria, the parkway's memorial intent was reinforced by its alignment with the Washington Monument. The landscape near Memorial Bridge was left open to provide an impressive panorama of Washington's distinctive skyline.

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Cloverleaf, Fourteenth Street Bridge, 1932 (NARA)

IMPROVED CIRCULATION

The original intersection at the south end of the Fourteenth Street Bridge was the first cloverleaf built by the federal government and one of the earliest in the United States. Cloverleaves were considered an important innovation because they enabled major roadways to cross without stop signs or dangerous left-hand turns. They were expensive to construct and required a great deal of land, so parkway designers experimented with a variety of simpler intersection layouts to improve safety and traffic flow.

Tear-drop shaped traffic islands, rotaries, and staggered entrances were used to "streamline" circulation at minor intersections, but extended merging lanes and broad continuous medians were not yet considered essential.

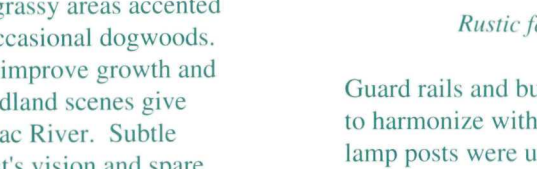


Woodland Valley Overlook, 1930 & 1932 (NARA)

PARKWAY BRIDGES

Most of the original parkway bridges were reinforced concrete structures faced with rough-cut stone for a more traditional appearance. Each bridge was given a slightly different design to accommodate local conditions and provide picturesque variety. This was standard procedure for parkway design in the 1920s-1930s. Railroad regulations stipulated steel construction, so parkway designers arched the railroad overpass's steel girders to harmonize with the other parkway bridges. The exposed concrete and steel spans of the parkway's later bridges exemplify modernist aesthetics and engineering concerns.

Guard rails and bus shelters were designed in rustic fashion to harmonize with the parkway landscape. Ornate metal lamp posts were used nearer Washington for a more formal appearance. The wood light poles were taken down years ago, but several original metal fixtures remain.



Rustic features, Belle Haven, 1932 (NARA)



Colonial-style signs and concession buildings contributed to the parkway's historical character. Patriotic groups placed a number of memorial trees and tablets along the parkway and at the Mount Vernon terminus, where a bronze tablet commemorates the parkway's completion.



Transplanting eastern red cedar, 1930 (NARA)



Rustic features, Belle Haven, 1932 (NARA)

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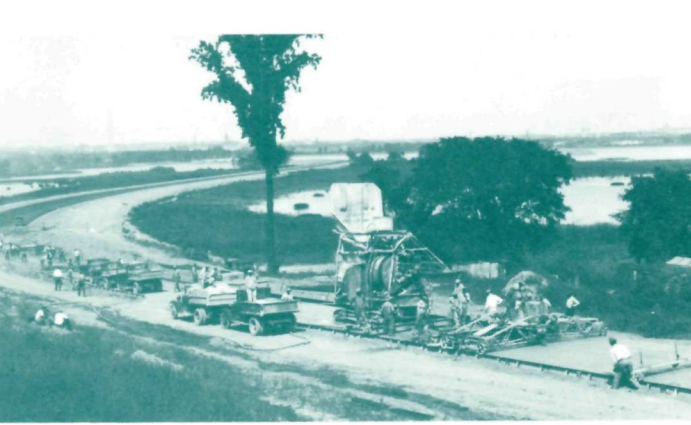


Proposed parkway route at Gravelly Point, beginning of dredge and fill operation, 1930 (NA)

ENGINEERED FEATURES

The riverfront location helped cut down on intersections and offered excellent opportunities for park development, but it required the construction of numerous bridges and over two-and-a-half miles of artificial causeway. Large sections of the parkway near Hunting Creek and between Washington and National Airport are built entirely on landfill dredged from the bottom of the Potomac River.

Most of the original highway surface was composed of reinforced concrete slabs, but flexible asphalt was used on filled land to avoid cracking when the excavated material settled. In Alexandria, the concrete pavement was covered with blacktop. These distinctions can still be seen on today's parkway. The unstable fill also required innovative planting techniques and strongly braced bridge construction at Boundary Channel and other stream crossings.



Paving near Capital Overlook, 1931 (NARA)

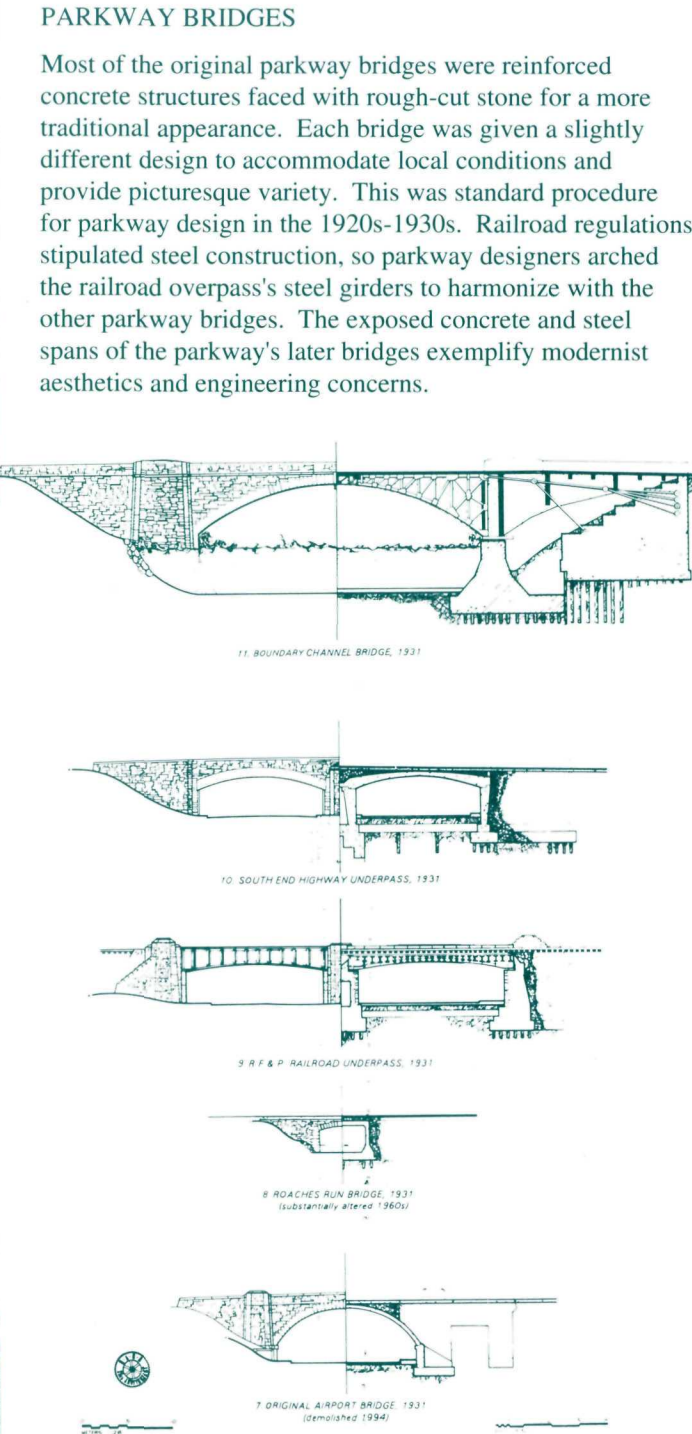


Illustration credits: historic photographs courtesy of National Archives and Records Administration (NARA), District of Columbia Public Library (DCL), and Commission of Fine Arts (CFA); HABS/HAER photographs by Jack Boucher, Jet Lowe and Timothy Davis; HAER bridge drawings by Michael Gala.