NATIONAL PARKWAYS ADMINISTERED BY NATIONAL PARK SERVICE

State	Name of Parkway	Total Mileage	Mileage Completed
Maryland	Baltimore-Washington	19.5	19.5
North Carolina and			
Virginia	Blue Ridge	478	375
Virginia	Colonial	23	23
Tennessee	Foothills	76	4
Maryland and Virginia	George Washington	47	21
Alabama, Mississippi			
and Tennessee	Natchez Trace	450	158
District of Columbia	Rock Creek and Potomac	4.4	3.4
District of Columbia			
and Maryland	Suitland	9	4.9

I. National Parkways

DUDLEY C. BAYLISS, Chief of Parkways, National Park Service, U.S. Department of the Interior

The National Park Service entered headlong into a new and hitherto unexplored field of park development—National Parkways—late in 1933. Announcement was made by the then Secretary of the Interior, Harold L. Ickes, that \$16,000,000 of Public Works funds had been made available for development of a national parkway to connect Shenandoah and Great Smoky Mountains National Parks, almost 500 mi apart in Virginia and North Carolina (Fig. 1). With completion now in sight by 1967, the Blue Ridge Parkway is that pioneer parkway project, and over a period of almost 30 years has served as a proving ground for many concepts and principles now firmly established and being followed on succeeding national parkways.

As defined by the National Park Service, a national parkway is a federally owned, elongated park featuring a road designed for pleasure travel, and embracing scenic, recreational or historic features of national significance. Access from adjoining properties is limited and commercial traffic is not permitted. A national parkway has sufficient merit and character to make it a national attraction and not merely a means of travel from one region to another. A national parkway can be established only by an Act of Congress.

Under MISSION 66, the National Park Service's 10-yr program which has as its target the completion by 1966 of development and staffing of the 183 parks, parkways, and other units of the National Park System, there are ten national parkway projects totaling 1,138 mi in various stages of completion in a program totaling about \$331,800,000 including funds appropriated prior to MISSION 66. This program includes other major national parkways such as the Natchez Trace Parkway, 450 mi in length through portions of Tennessee, Alabama, and Mississippi; the Foothills Parkway, 72 mi long paralleling the northern boundary of Great Smoky Mountains National Park in Tennessee; the Colonial Parkway, most recently completed, 22 mi in length, connecting Jamestown, Williamsburg and Yorktown, Virginia; and the George Washington Memorial Parkway, 47 mi long, linking Mount Vernon and Great Falls, Virginia, and Fort Washington and Great Falls, Maryland, on both sides of the Potomac River near Washington, D.C.

About two-thirds of the total mileage, or 800 mi has been completed or is under way within an annual authorization of \$16,000,000 in the Federal-Aid Highway Act. The general policy is that the states through which the parkway passes acquire and deed to the United States the lands necessary for the parkway road, including interchanges with highways, parallel service roads, and protective buffer areas, plus adjoining parks where recreational developments are provided, such as campgrounds, picnic areas, scenic overlooks, historic or archeological sites and nature trails as well as necessary public service and maintenance facilities (Fig. 2). All of these integral parkway features may be accommodated within an area of varying width averaging 125 acres per mi.

Over a period of many years the ratio of cost, with the state acquiring the land and the Federal Government building the road and other facilities, is ten percent state and 90 percent Federal—the same, for some unknown reason, as that recently established for the Interstate Highway System.

From the very beginning the National Park Service has been fortunate in being able to use the engineering services of the Bureau of Public Roads by means of an interbureau agreement called "Road Regulations," which covers the national parkways and all major road projects in the national parks and other units of the National Park System. The Bureau has assigned many of its best engineers to the special requirements of national park and parkway work. Projects are handled by the Bureau's Regional Offices and the Park Service's Eastern and Western Offices of Design and Construction. The landscape architects and architects of the Park Service, and engineers of the Bureau, work together as a team in all phases of reconnaissance, location, design and construction of the parkway road. Following completion of construction contracts the



Figure 1. Leaving Shenandoah National Park, Virginia; 477 mi ahead—Great Smoky Mountains National Park.

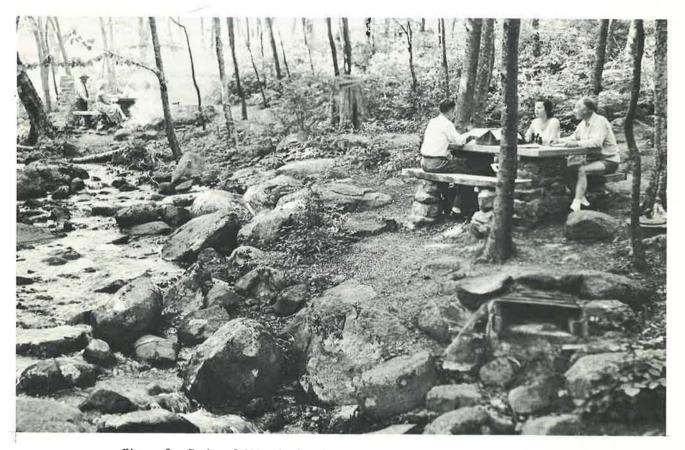


Figure 2. Peaks of Otter Park; picnic area along Little Stony Creek.

various units are taken over for maintenance by the Park Service. As in the national parks, the administration of each parkway is under the direction of a superintendent with a staff sufficient to handle protection, maintenance, and interpretation.

Location and design are based on careful studies of map, stereoscopic aerial photos, and ground reconnaissance data. Working closely with the engineer, the landscape architect familiarizes himself with and strives for a location having points of scenic, historic, architectural, or archeological interest. Local agricultural practices, forest culture, and wildlife refuges also contribute to the visual or inspirational pleasure of the visitor.

If possible, the location includes a variety of scenic as well as educational features interwoven with parks of several hundred or several thousand acres where campgrounds, picnic areas, trails, lakes, and fishing streams may be found (Fig. 3).

The whole parkway is considered as an elongated park to accommodate moving rather than static visitors. This ride-awhile, stop-awhile characteristic governs: (a) the location of the park widenings for recreational facilities at intervals of 30-60 mi along the way, (b) the provision of necessary overnight, food service and maintenance units, and (c) the design of the road with frequent turnouts and parking overlooks as well as vistas to be observed while in motion, and exhibits of nature, pioneer life and current land uses (Fig. 4).

These elements are not the result of happenstance. They are conceived and planned well in advance of the initial right-of-way acquisition, and embodied in a combined set of drawings and narrative sections known as a Master Plan.

In designing the main parkway road the safety of the parkway motorist is a prime consideration. Good sight distance consistent with the topography is important. Grade separation structures at railroads and highways, guardrail, center striping, standard traffic signs and markers and mileposts to relate the traveler to points described in the parkway folder are standard provisions. Access points are limited and parallel local roads are provided where necessary.

Inasmuch as the parkway is primarily a recreational facility the road design is based on moderate rather than high speed. A top speed limit of 45 mph is used on the Blue Ridge Parkway, for example, with curves suitably marked for lower safe speeds.

The combination of these design and safety standards, plus comparatively low speed and freedom from trucks and large buses, makes it possible for the parkway traveler to forget the tensions of highway or turnpike driving and really enjoy his parkway experience. He can even make some reasonable observance of the scenic beauty of the countryside while en route. Of course, the frequent overlooks provide opportunities for a more leisurely look-see.

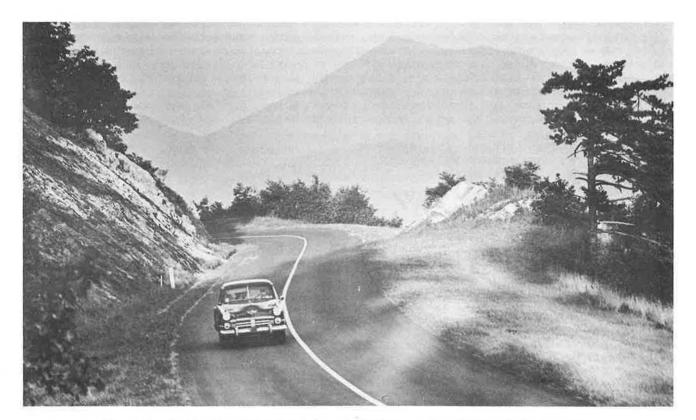


Figure 3. In the Blue Ridge Mountains of Virginia; peaks of Otter in background.

Some of the distinguishing characteristics and principles of national parkways are shown in Figures 5-11. These photographs are confined to the Blue Ridge Parkway, but the principles illustrated apply to all national parkways.

In setting the parkway right-of-way boundaries the landscape architect strives to be another Thurston, a magician who creates an illusion, if possible, that the horizon is the only visible boundary. This is accomplished in the following manner: (a) In mountainous or hilly country by setting the fee simple or scenic easement line just over the nearest ridge or military crest. (b) In wooded country by including sufficient width to allow "seeing into" the forest floor occasionally. Views such as this stimulate interest in following short self-guiding nature or scenic trails. (c) In agricultural country by bringing the crop right up to the road on parkway lands leased back to the adjoining owner. Such colorful scenes, varying from season to season, display the fruits and uses of the land with no cost to the Government for maintenance.

In places, orchards become roadside temptations though they are protected by the honor system. Here and there open meadows whose boundaries are predetermined are leased for hay production and haystacks

are carefully located as part of the roadside picture (Fig. 5).

Pasturelands, similarly located in the early right-of-way determinations, enhance the rural scene. Fences are kept close to the road and the parkway boundaries are invisible because the fee simple line sometimes lies along a stream and the scenic easement line may be along the far side of a field. The trick is to try to create the impression that no boundary exists but at the same time to protect against commercial or other distractions.

The main parkway road is located to take full advantage of the famed Blue Ridge scenery and is fitted closely to the ground. In this rugged topography the result is graceful curvilinear alignment with only occasional justification for a long tangent. To sustain interest, variety is provided by alternating stretches of open valley with ridge top or escarpment location.

Vistas must not only be planned but maintained both at the overlooks and along the road and are generally designed to be seen while in motion (Fig. 6). At the overlooks, signs mark prominent features for more

leisurely viewing.

As part of the right-of-way acquisition the landscape architect studies the problem of adjusting local roads to the new parkway locations for highway or agricultural grade separation structures, many with stone-faced arches, also power and telephone line relocations and service roads. All of these are shown on the land acquisition plans for use by the state.

Slopes are laid back and rounded to a natural degree and are finished and seeded as the grading progresses. This results in quicker healing of scars at lower cost than if the seeding is done as the final part of the grading contract.

Judicious planting of broadleaf evergreens, pine, dogwood, and other native materials according to careful plans, supplement natural regeneration and produce a mature and natural appearance (Fig. 7). Specimen trees and unusual rock formations are protected during construction for later exhibits.

Rock cuts or slopes offer opportunities for imaginative treatment. Here again variation is sought from a monotonous constant slope—in some cases by carefully removing loose dirt and rock, as a dentist might, to expose the formation—in other cases by providing planting pockets for the colorful Virginia creeper vine, or preserving free-standing monoliths having interesting shapes.

Tunnels are often more economical than through cuts and, in some locations inexcusable visual damage to a whole mountaintop covered with purple rhododendron can be avoided. Stone portals help tie a structure

into its surroundings.

Overlooks and turnouts are balconies from which to observe nature's "spectaculars" and are convenient takeoff points for short hikes.



Figure 4. Thunder Hill Gap parking overlook—one of more than 100 along the Parkway.

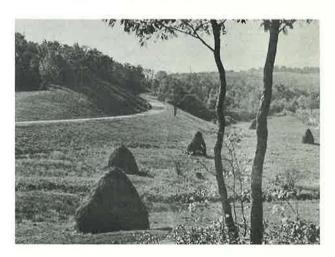


Figure 5. Hay meadows along parkway—low cost maintenance of pastoral landscape by leasing parkway lands to neighbors.

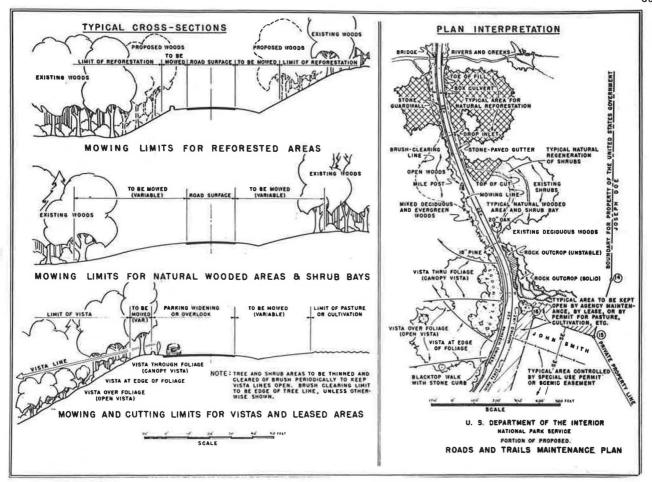


Figure 6. Portion of Parkway land-use plan showing explanatory data for construction and maintenance purposes.

Water features are infrequent so wherever old mill ponds are found they are restored and displayed. Small lakes cover up channel changes and are popular with the fisher folk. Open bridge rails permit full vision of streams and gorges.

At Mabry Mill not only the pond but the restored mill, mill race, and wheelwright shop form the nucleus of a popular exhibit of bygone mountain industry (Fig. 8). Water-ground cornmeal and buckwheat flour are sold here and in hotcake form in a nearby restaurant.

Another group of restored buildings gives the visitor an accurate and colorful picture of early mountain farm life with the cabin, corncrib, springhouse, bear-proof pigpen, and all the other accessories. Original pioneer homes and cabins are preserved and exhibited along the parkway.

Rail fences are not only decorative; in their varied forms they serve as reminders of the early days, and they bring the grazing cattle and sheep right up to the road's edge (Fig. 9). The entire field is under fee simple or scenic easement so the living picture of rural mountain life is permanently preserved. Landuse plans show the maintenance crew moving limits, fields and vistas to be kept open and lands designated for pasture or crops.

Stone guard wall is used where it is available, particularly near rock cuts. In other locations a sturdy pressure-treated hewn timber type of rail is used.

Signs, map folders, and informational leaflets are designed to make the parkway largely self-guiding, thereby reducing the need for interpretive personnel. Mileposts are referenced to the parkway map and information on food and shelter is provided in special racks at visitor centers.

The nineteen park enlargements varying between several hundred and several thousand acres are marked by signs such as this. They provide for campgrounds, trail systems, and other public facilities requiring more space than the right-of-way affords. Here are located picnic areas, visitor centers, lodge accommodations, when they are not available nearby, coffee shops, gasoline stations, shelters, and comfort stations. The buildings are designed in architectural harmony with the simple pioneer mountain structures with stone chimneys, board and batten or weatherboarded walls, and shake roofs.



Figure 7. Blue Ridge Parkway—mountain valley location; native plant materials help create natural appearance.



Figure 8. The path to yesteryear—restored Mabry Mill grinds cornmeal and buckwheat flour for visitors and exhibits early American industry.



Figure 9. Grazing sheep and rail fences; adjoining farmers preserve living rural mountain scene by leasing pasture lands.

Management units in the parks provide working space for the maintenance personnel and rangers. As you can imagine, a 477-mi parkway road, plus 19 parks and more than 100 overlooks means a big road maintenance operation alone. The administration of the parkway is under the direction of a superintendent whose headquarters are in Roanoke, Virginia. He has short-wave radio communication to all points along the parkway. The value of this means of communication is apparent when landslides occur or when other circumstances require immediate action.

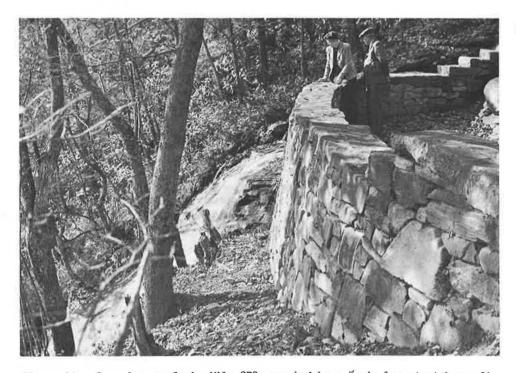


Figure 10. Cascades overlook-Mile 272; reached by a 5-min leg-stretcher walk.

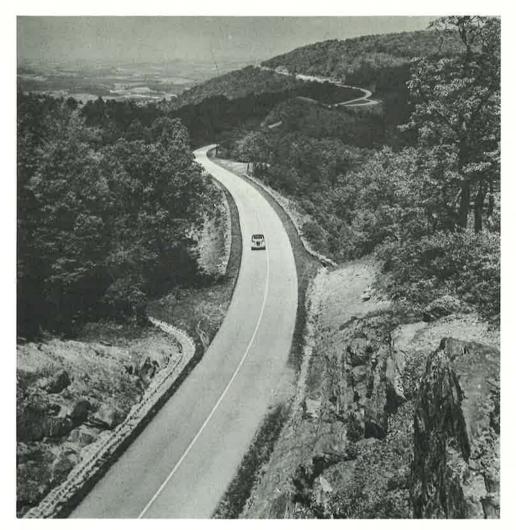


Figure 11. Devils Garden, North Carolina-Parkway road leaves heavy rock cut and skirts edge of escarpment.

The entire philosophy of a national parkway such as this is to give each traveler the opportunity to see, feel, and enjoy the mountains in a leisurely visit. He sets his own pace and pauses where his interests lie—perhaps to listen to the murmur of a clear mountain stream or the throaty roar of a waterfall (Fig. 10). He has many glimpses of rural farming scenes mixed in with splashes of fall color or spring bloom. He, or she, can stroll along a trail, and if the spirit moves him, climb to a rugged outpost of the ancient Appalachian range. In quieter mood he may gaze over a Persian carpet to far away places or marvel at the endless patterns of leaves against the sky.

Who can estimate the appreciation of nature and love of country that may be awakened by such a succession of ever changing panoramas along the parkway? In simple terms is it not a new form of the old Sunday Drive? To those who were fortunate enough to enjoy those weekly excursions each bend in the road brought some fascinating sight or experience. Here they are again for you and millions of others to enjoy in this quiet way through a living section of the scenic southern highlands (Fig. 11).

II. State Parkways

OLIVER A. DEAKIN, Parkway and Landscape Engineer, New Jersey State Highway Department

A State parkway is a modern high-speed highway designed to carry passenger vehicle traffic only. Commercial vehicles are excluded so as to provide a free, rapid, and constant flow of traffic, which is necessary for the moving of large volumes of passenger traffic.