Chapter 1: Introduction

History and Purpose

Great Smoky Mountains National Park was created through donations of land early in the 20th century "for the benefit and enjoyment of the people." The 800 square mile Park lies on the Tennessee-North Carolina border (Figure 1) and is within a day's drive of 50% of the U.S. population. Given its diverse vegetation, wildlife concentration and cultural significance, the Park has steadily grown in popularity and annual visitation.

From humble beginnings, Great Smoky Mountains National Park has now become the most visited of the National Parks. Heavy visitation comes at a price, however, and a part of that price is traffic congestion. Even prior to World War II, traffic congestion on the Tennessee side of the Park had become a significant issue. The Park's transportation infrastructure at that time consisted primarily of Little River Road and Newfound Gap Road (U.S. 441), which are two-lane low speed roadways. In fact, that is still the primary infrastructure existing today. Although significant improvements have been made in the regional roadway system in the surrounding Gateway area of Blount, Sevier and Cocke counties over the years, the sheer magnitude of visitor traffic to the Park and Gateway area continues to tax the limited roadway network.

In response to the traffic congestion in the early 1940's, citizens of the middle eastern area of Tennessee petitioned the National Park Service and Congress to build a new roadway. It was envisioned that this "parkway" would be located "outside the main range of mountains and generally on the slopes of small secondary ridges in Tennessee to relieve the traffic pressure on the Park" (*Foothills Parkway Master Plan*).

1.1 Study Purpose

Development of the Foothills Parkway has been in progress for 57 years and is only 30% complete. In addition, it has never benefited from holistic planning to evaluate the facility in context with the regional transportation network. Certainly there are significant challenges to project completion at this point. Among them are:

- The estimated cost of completion is in excess of $300M.
- Federal budgetary constraints increasingly limit funding potential.
- Severe environmental constraints identified by Federal and State regulatory agencies.

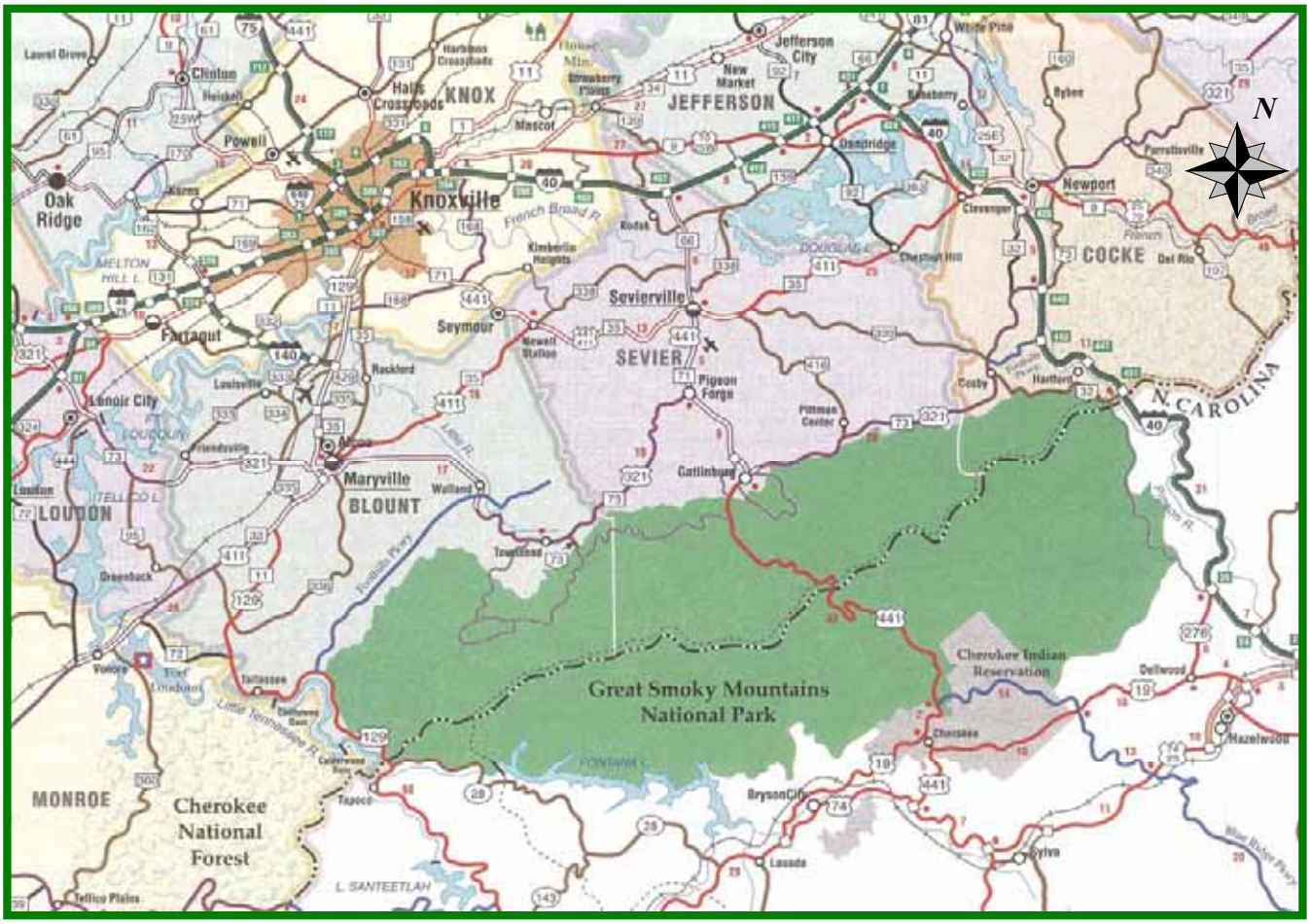

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Figure 1. Great Smoky Mountains Park Region

- The impact major changes in land use and growth in population, tourism and traffic have on the visitor experience.

Recognizing these issues and concerns, this study was commissioned for the specific purpose of providing an in-depth assessment of the Foothills Parkway corridor in context with the Congressional mandate, the mission of Great Smoky Mountains National Park, the regional transportation network and the Gateway communities in Blount, Cocke and Sevier Counties. To complete this assessment, the study will consider:

- Existing and projected traffic volumes;
- the ability of the Parkway to accommodate traffic demands;
- Visitor experience;
- Environmental impact; and
- Construction and operational costs.

Given the intense development of the Gateway area during the last three decades, questions have been raised as to whether the Congressional mandate of providing "appropriate views" of the Park can still be achieved. Central to this issue is whether visitors will actually drive on the Parkway if it is available, and if they do, whether panoramic views of the Park will be available. It appears that the answer to these questions may not be "yes" or "no" but rather one of

degree; i.e., the level of visitor experience.

The 1940-era goals for the Parkway also included the expectation that traffic on Park roads would be reduced and that congestion would be mitigated in the Gateway area. Hence, an important purpose of this study is to confirm the relationship of this proposed new road to the existing regional and Park roadway systems. Realizing that too much traffic on the Parkway will in fact negatively impact the visitor experience, traffic projections for the constructed Parkway itself are also of significant importance.

Another concern of Great Smoky Mountains National Park staff is the comparative lack of public involvement in the decision-making process to date. The primary opportunities for public comment since the original legislation was passed involved either design or construction-related elements of specific sections. Consequently, another critical element of this study is to facilitate public participation in the process as well as to foster regional cooperation through collaboration with local government officials and stakeholders. Opportunities were provided for the public and stakeholders to be made aware of the project's goals and objectives, to define regional concerns and major issues, and to discuss alternatives under consideration.

The study was also designed to explore various completion scenarios including traditional build options and the use of available right-of-way for alternative modes of travel as well as the consequences of a "no-build" option. Given the passage of time, new technologies, roadway constructability concerns (environmental impacts, cost, etc.) and a heightened public awareness of the desirability of mass transit options, the study looked at transportation options including traditional rail, monorail and rubber tired transit as well as the possible use of the available right-of-way for trail development. It should be noted that the study assumes the eventual completion of Sections E and F and therefore considers completion options and related impacts of only Sections B, C and D.

It is anticipated that this study will be used as input to future decision-making by the National Park Service and the Federal Highway Administration. Very likely, it will be incorporated into an environmental impact statement (EIS) which would then become the decision document for future Foothills Parkway development. **This study itself will not serve as a decision document or offer a final recommendation.**

1.2 The Mandate

In response to rising public sentiment and with a favorable report from Secretary of the Interior Harold L. Ickes, the 78th Congress approved Public Law 232 on February 22, 1944. This mandate of Congress "…authorized the acceptance of donations of land for the construction of a scenic parkway to provide an appropriate view of Great Smoky Mountains National Park from the Tennessee side of the park, and for other purposes…" It was envisioned

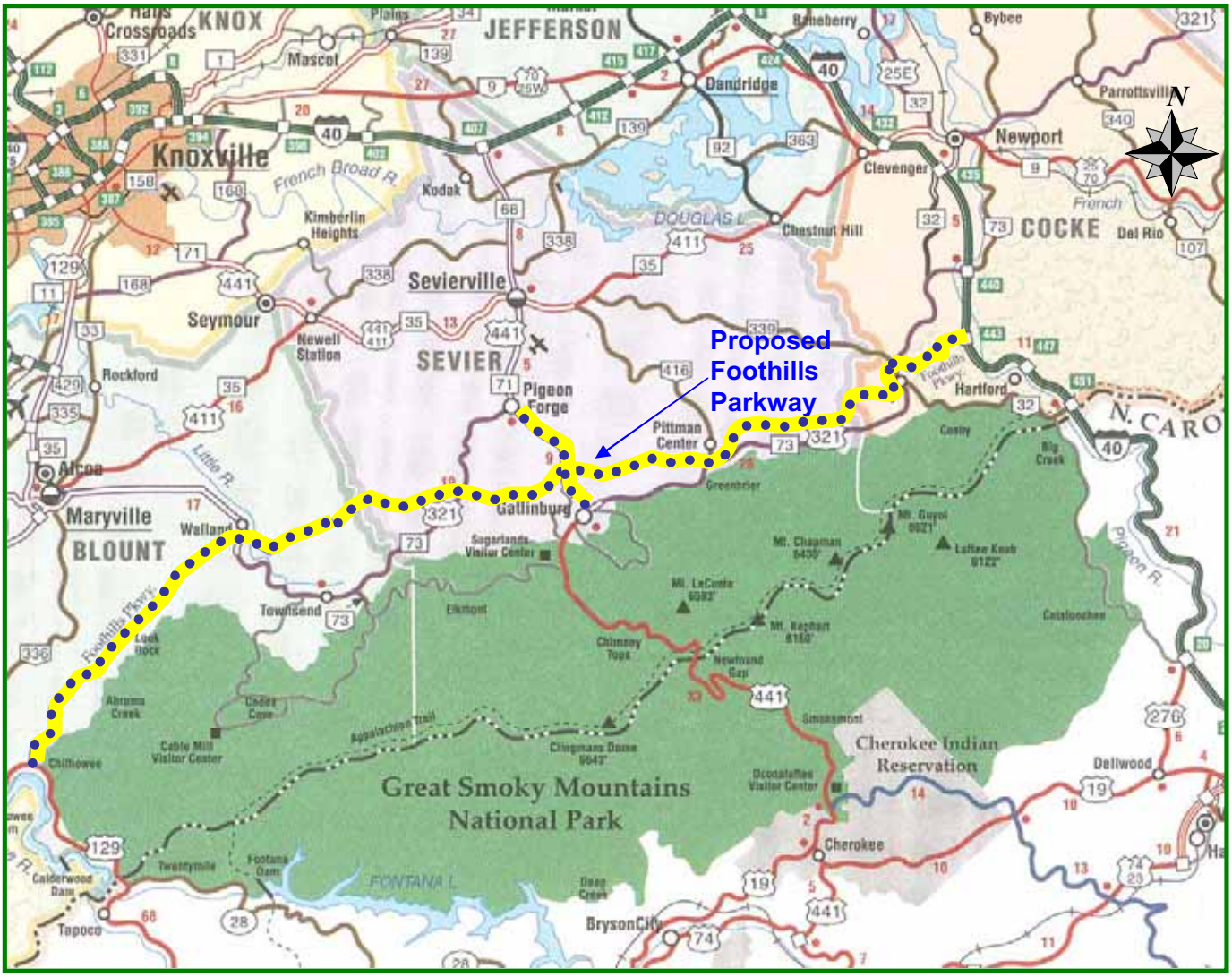

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Figure 2. Proposed Foothills Parkway

that this "scenic parkway" would generally parallel the boundary of the Park and be appropriately connected to the Park.

As described by the National Park Service, a "parkway" is a limited access roadway on which commercial traffic is not permitted, that serves as an elongated park featuring pleasant motoring plus enjoyment of cultural/historic, natural scenic and recreational features of national significance. Subsequently, the National Park Service with the assistance of the Bureau of Roads (the predecessor to the FHWA) developed an alignment for this new facility. It would extend approximately 72 miles from U.S. 129 in the Little Tennessee River Valley of Blount County through Sevier County to U.S. 321 near Cosby in Cocke County (and later to the proposed Interstate Highway-40 located in the Pigeon River valley east of Cosby) (Figure 2). In addition, an improved access to Gatlinburg and Pigeon Forge known as the "Spur" and a three plus mile bypass of Gatlinburg from the Spur to the Park were envisioned as a part of the total facility.

Proponents of the parkway noted several goals for the new facility. Among those were traffic relief, improved access to the Park and an

improved opportunity for pleasure driving. Indeed, it was the combination of these goals that attracted public attention. While the regional roadway system to the Gateway vicinity was good and improving, access to the immediate Park area south of the Newport/Sevierville/Maryville corridor was more problematic. U.S. 441 provided primary access, but it traversed the congested downtown area of Gatlinburg to reach the Park. Other routes south of this corridor were primarily substandard state and county roads located in deep valleys that did not generally provide a pleasant driving experience for the sightseer.

The new parkway would connect to the regional highway system at several locations, traversing the Gateway area via a well-designed facility located along the ridge-tops rather than in the valleys. It would provide a scenic, pleasurable driving experience and improved access to the Park via the Spur and Gatlinburg Bypass. These arguments proved convincing to both the Congress and the Tennessee State Legislature, and as a result, the "Foothills Parkway" was given birth by Congress in 1944 and confirmed by the State of Tennessee in 1947.

1.3 Historical Setting

In the early 1940's, the Gateway area of Blount, Sevier and Cocke Counties was a rural, farming area dotted with small communities including Townsend, Pigeon Forge and Cosby. The seats of the three counties--Maryville, Sevierville and Newport--were relatively small hubs of commercial, banking and governmental activity. The one notable exception was Gatlinburg, which was already a bustling city and staging area for Park visitors, although very small in comparison to its current 6,000-motel-room size.

There were no multi-lane highway sections south of Knoxville at that time. The built-up areas of the rural counties (Blount, Sevier and Cocke) were connected by what would today be considered very substandard two-lane state and county roads. U.S. 441 and U.S. 321, both substandard as well by current policy, were Federal highways that provided access to the Park. U.S. 441 (now Newfound Gap Road) traversed the Park to Cherokee, North Carolina.

It was against this backdrop that Congress considered and ultimately mandated construction of the new Parkway. Congress placed two limitations on its mandate, however. First, Federal funds would not be used to buy the right-of-way. Though not stated, property purchase was to be the responsibility of the State of Tennessee. Second, construction would commence at an unspecified future date as World War II was still in progress at that time.

A series of Tennessee legislative actions occurred during the mid-1940's that solidified state participation in the project, and right-of-way acquisition commenced in 1947. It was apparently during these legislative deliberations that this new facility came to be called "Foothills Parkway." The property purchase proved to be a daunting task in its own right, requiring more than 20 years for completion. By 1979 all

property needed for the project, an average of 125 acres per mile, had been purchased by the State of Tennessee and transferred to the Federal government.

During this period, steady progress was being made by the National Park Service and the Department of Interior. Early on, the alignment was established and the total project subdivided into eight primary sections, A through H (Figure 3). Project planning continued through the decade of the 1950's with final design and construction drawings completed on Sections A, G and H. Construction began on the first section of the Parkway in 1960.

By 1968, construction of Sections A, G and H was completed. These three sections comprise a total of 22.5 miles of the planned 72.1-mile facility. These sections also formed the northeastern and southwestern termini respectively, thus leaving the 49.6-mile center section for future construction.

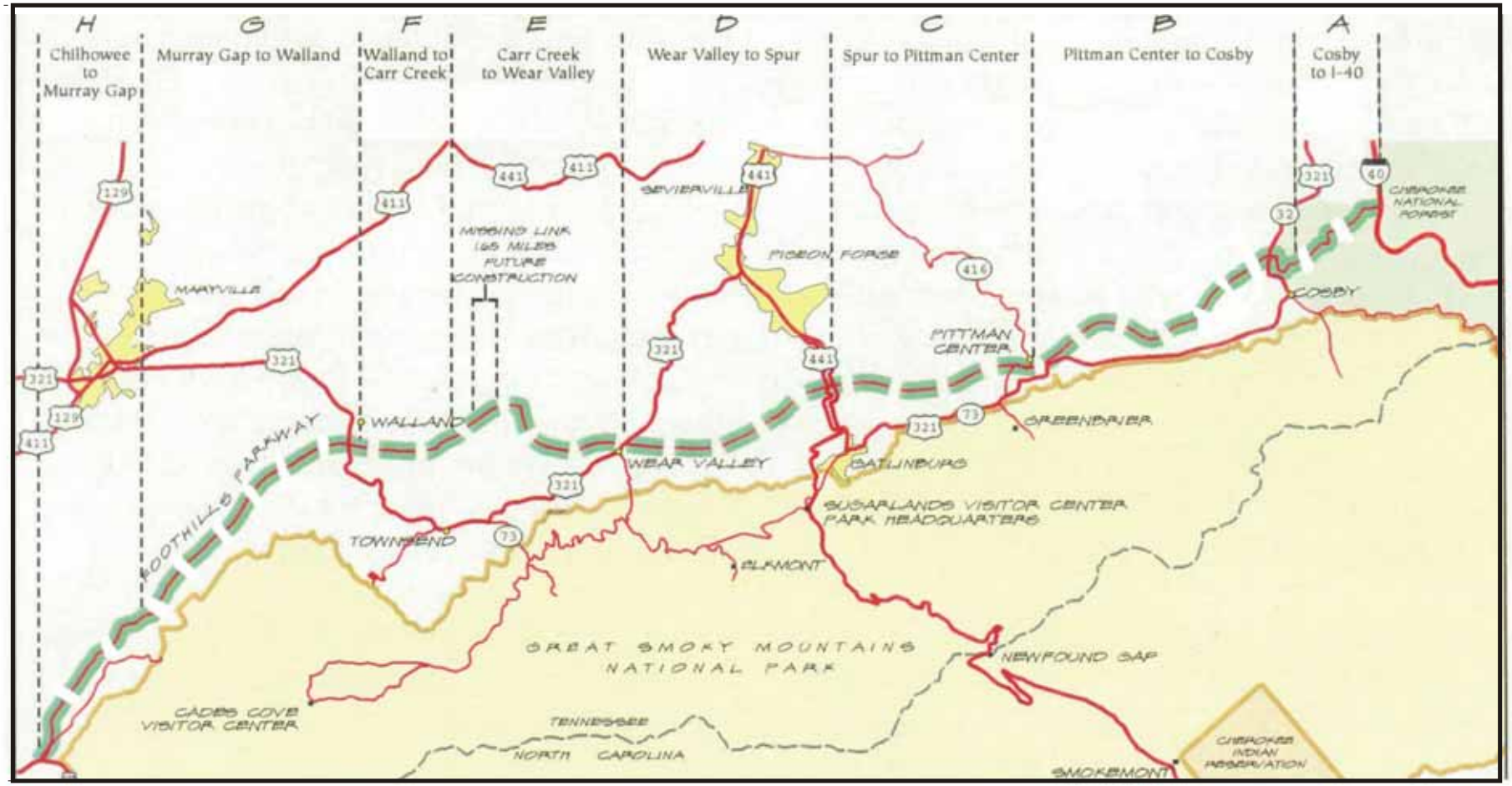
Construction was also completed by 1968 on the Spur and on the 3.4-mile Gatlinburg Bypass. These two roadway sections were intended to provide improved access to the Park while relieving traffic congestion in Gatlinburg.

Another significant project milestone was accomplished in 1968 with publication of the *Foothills Parkway Master Plan*. The plan describes the Parkway as a limited access facility with seven interchanges to connect it with the regional roadway system and "…envisions a pattern of use and suggests a program of visitor services and resource management designed to meet the needs of the parkway visitor…," so that it can reach full potential as a "nationally significant scenic recreation resource."

Project development slowed dramatically after 1968. Priorities at the Federal level were such that funding for additional construction was difficult to obtain. In addition, new environmental protection policies and procedures, the National Environmental Policy Act of 1969, caused the planning and design process to be more involved and time consuming. It is noteworthy that the *Foothills Parkway Master Plan*, although discussing natural resource preservation at length, does not include the words "environment" or "environmental protection," terminology and requirements that are now central to every infrastructure development project.

In an attempt to assist, the State of Tennessee offered to construct part of the roadway. Construction of Sections E and F by the State commenced in 1982 and was partially completed; however, construction stopped in 1989. Significant and unanticipated environmental and geologic conditions were encountered, thus requiring redesign of a portion of that roadway which has come to be known as the "missing link." Since 1989 work on Sections E and F has continued under the direction of National Park Service and the Federal Highway Administration.

Figure 3. Foothills Parkway Sections



This post-1968 period also brought dramatic changes to the Gateway area which the Parkway traverses. Building on the ever-increasing popularity of Great Smoky Mountains National Park, the Blount/Sevier/Cocke County area began to emerge as a major tourist destination in its own right. This was especially true in Sevier County along the State Route 66/U.S. 441 corridor from I-40 to Gatlinburg. Billed as a family-oriented tourist destination, Gatlinburg, Pigeon Forge and most recently Sevierville, became intensely developed with thousands of motel rooms, world class entertainment venues, music theaters and a Minor League baseball stadium. In fact, the year 2001 marked the first time that tourist activity in the Gateway area increased while Park visitation decreased, an indication that the Park and the Gateway communities are now more equal partners in attracting visitors to the area.

Two aspects of this intense development are of concern to the Foothills Parkway. First, traffic volume on the regional roadway system has increased exponentially, thus causing concern that traffic volume on the Parkway, if constructed, would be so great that the visitor experience would be significantly impaired. Second, Gateway area development has included construction of homes, vacation chalets, motels and other commercial enterprise within the viewshed of the Foothills Parkway between the Parkway and the Park boundary, thus calling into question the value of the available views and the possibility that the mandate cannot be fully achieved by completion of Parkway construction.

1.4 Current Status

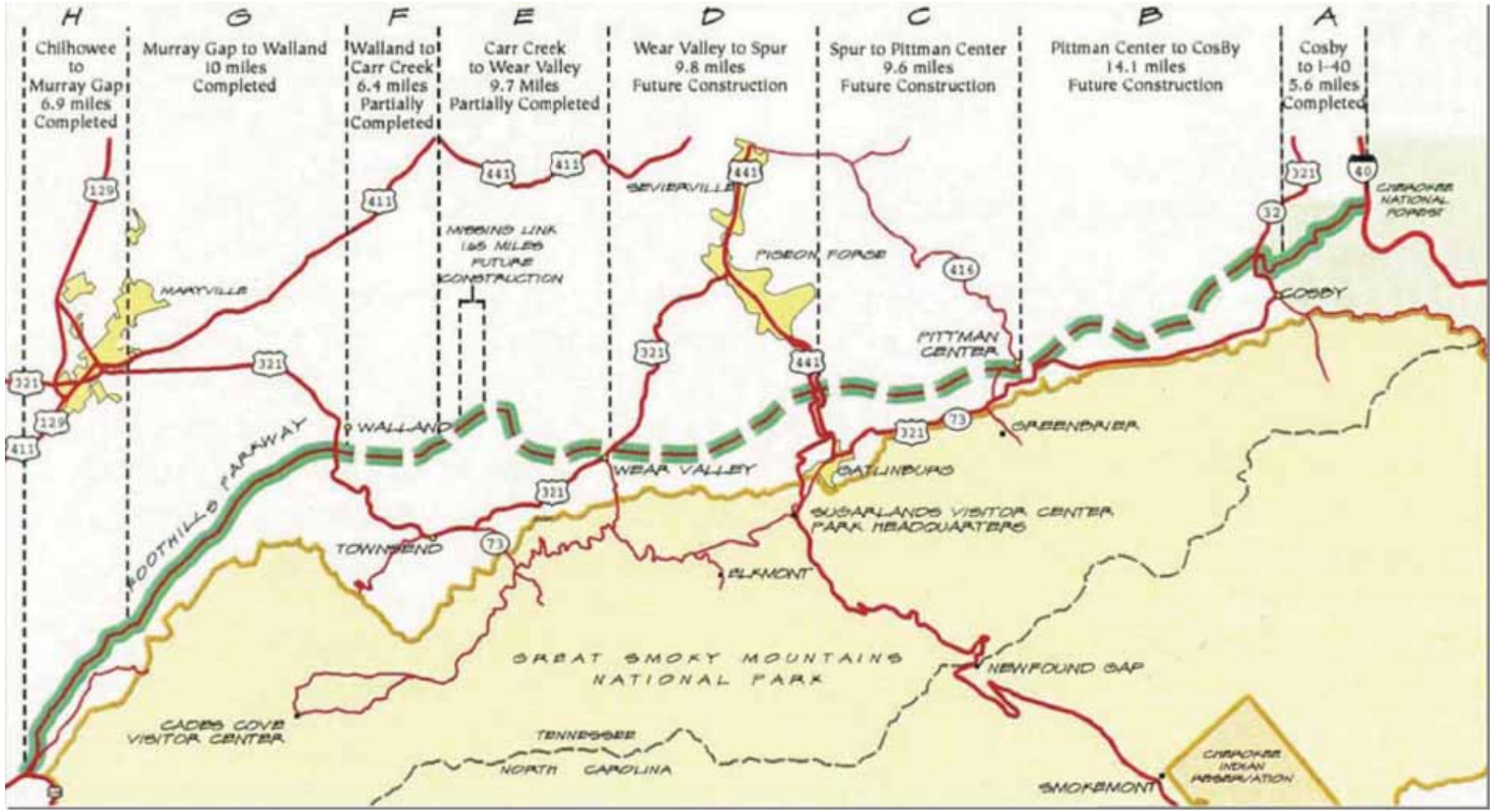
The following paragraphs describe the current (2001) status of each of the eight primary sections of the proposed Foothills Parkway. Figure 4 is a map showing the Parkway, section boundaries, and other descriptive information.

As noted in Figure 4, Section A, which is 5.6 miles in length, connects with Interstate-40 and represents the eastern terminus of the facility. Section A was opened to traffic in 1968 and has been in service since that time. The section of I-40 through the Pigeon River Valley linking Tennessee and North Carolina was also opened to traffic at about the same time. Together, these facilities offer a convenient access to Great Smoky Mountains National Park from the Coastal Carolina region.

At the other end of the Parkway, Sections G and H, which are a total of 16.9 miles in length, were also opened to traffic in the mid-1960's. Together they connect U.S. 321 at Walland with U.S. 129 at Chilhowee, and represent the southwestern terminus of the facility. This section of the Parkway offers several panoramic views of the Park as well as the Blockhouse Valley/Maryville area to the north, but it is somewhat remote and thus attracts rather modest visitor traffic at the present time.

As proposed, Section B is 14.1 miles in length, extending from an interchange with U.S. 321 (and Section A) at Cosby to an interchange with S.R. 416 in

Figure 4. Foothills Parkway Sections



Pittman Center. Section B provides the opportunity for a number of excellent views of the Smokies with perhaps the most spectacular view within the corridor provided from the summit of Webb Mountain. Due to topographic and roadway design parameters, the summit is not directly accessible from the main Parkway. As a result, the Parkway right-of-way was expanded to include the summit, and a 1.2-mile access road from the Parkway to the ridgetop was included in the *Master Plan*. The National Park Service published a draft *Final Environmental Report* for this section in 1999. Preliminary design plans for this section are also available.

Section C is 9.6 miles in length, extending from the S.R. 416 interchange in Pittman Center to an interchange with the Spur (U.S. 441), the previously described access roadway to Pigeon Forge and Gatlinburg. Little work has been done on this section to date. There are no roadway plans and no environmental analysis has been conducted.

Section D is 9.8 miles in length, extending from the Spur to an interchange with U.S. 321 in Wears Valley. Preliminary design plans are available and the National Park Service published a draft Environmental Impact Statement (EIS) in 1995. Section D includes an 1,100-foot tunnel through Crooked Arm Ridge of Cove Mountain. Near the southwesterly terminus of Section D, an extensive complementary visitor use area is also proposed as a part of the Parkway development. If developed as proposed, it will include a staffed visitor orientation station, campgrounds, picnic areas and an amphitheater in addition to maintenance and administrative facilities. At this location, the Parkway right-of-way touches the Park boundary and offers direct access to the Metcalf Bottoms area of the Park.

Sections E and F, which are normally considered together as a unit, are a total of 16.1 miles in length and extend from an interchange with U.S. 321 in Wears Valley to another interchange with U.S. 321 in Walland north of Townsend. As previously noted, construction on these sections began in 1982, was partially completed, but was suspended in 1989. Prior to suspension of construction, all but approximately 1.65 miles was completed with the exception of final paving. This 1.65-mile "missing link" was also included in the project, but it was determined after encountering extreme geologic and environmental difficulties that the roadway could not be completed as designed. This section has now been redesigned using a series of long, segmented bridges, two of which were completed in 2001. Construction of a third bridge is anticipated to begin in 2002. Actual costs for constructing these three bridges have far exceeded estimates and have made it difficult to obtain funding to complete the segment. The design of this segment was recently re-examined by the Federal Highway Administration and it was decided not to modify the current design.

1.5 Previous Studies and Plans

The 1968 *Foothills Parkway Master Plan* established the framework for full and

orderly development of the Parkway in a manner complementary to Great Smoky Mountains National Park. As a result of the heightened public awareness toward environmental impacts of infrastructure development and passage of the National Environmental Policy Act (NEPA), a draft EIS has been prepared for Section D and a draft final environmental report has been issued for Section B.

Given the passage of nearly five decades and the dramatic changes that have occurred during this period in the area surrounding the Foothills Parkway corridor, serious questions have been raised in recent years as to the continued viability of this project. National Park Service staff has developed two documents which describe their concerns in some detail and outline a strategy for a dialog of discussions concerning the future of the facility. One result of the continuing dialog was the decision to commission a traffic study in 1996 for the purpose of better understanding the implications of recent land use development trends and their relationship to Parkway and regional highway system traffic volume.

A short summary of each of these documents is provided in the following paragraphs:

Foothills Parkway Master Plan, 1968

"This Plan envisions a pattern of use and suggests a program of visitor services and resource management designed to meet the needs of the parkway visitor." Further, it states that "…until all 71 miles of the parkway are completed and major traffic arteries and related accesses to Great Smoky Mountains National Park are connected, full utilization of the parkway as a nationally significant scenic recreational resource will not be achieved."

The Plan outlines the physical location of the Parkway corridor, its interchanges and the additional visitor amenities needed to maximize the quality of the visitor experience. It also describes the natural resources of the area, noting that "…the long-term control, management and use of the land in the scenic corridor is critical to the aesthetic significance of the parkway."

Finally, the Plan provides a design theme, noting that "…upon completion the parkway will tie together much of the recreational resources of the mountains and rivers of East Tennessee." Further, it states that "…the landscape and the recreation of the region are more important considerations rather than the road itself. No matter how well the roadway is engineered or how fine the complementary facilities are along the way, there must be a distinguishing characteristic of natural beauty or other quality that causes the location to stand out among other recreational driving opportunities."

General Management Plan, Great Smoky Mountains National Park

As quoted from its introduction, the "…*General Management Plan* is both a manager's guide for meeting the objectives established for Great Smoky Mountains National Park and a public statement of National Park Service Management intentions. The plan establishes long-range strategies for

resource management, visitor use, and development of an integrated park system, thereby creating a framework for all future programs, facilities and management actions."

This *Plan* includes the Foothills Parkway and related facilities as part of its general development strategy, thus reaffirming the commitment of the National Park Service to continue progress and complete the facility. The *Plan* does note, however, that "…completion of the Parkway will be contingent upon the future appropriateness of additional recreational roadways."

(Draft) Environmental Impact Statement, Foothills Parkway, Section 8D, 1994

The National Park Service compiled this draft EIS in 1994. Much of the information contained therein was developed by the Oak Ridge National Laboratory and reported in a 1992 environmental report. The purpose of the EIS was to assess the impacts of the proposed construction of Section 8D of the Foothills Parkway, a 9.8 mile section of roadway extending from an interchange with U.S. 321 in Wears Valley to an interchange with the Spur (U.S. 441) near Pigeon Forge and Gatlinburg.

Two alternatives were studied. Under a no build option, the existing right-of-way, which currently includes a pioneer road, would be allowed to revegetate and reestablish the forest canopy. There would be no adverse effects on cultural resources.

The build option includes construction of typical bridge, tunnel and roadway sections. The document describes in great detail the potential impact on a variety of cultural and natural resources and discusses mitigation measures.

Foothills Parkway Traffic Study, 1997

Oak Ridge National Laboratory (ORNL) conducted this study, which analyzed potential traffic operations of various build alternatives. A gravity model was used to estimate current and future (2006 and 2026) traffic flow on a street network consisting of primarily U.S. routes, state routes and Park roads. For future traffic projections, historical Park visitation growth trends were applied to the gravity model, then a determination was made as to the percent of projected traffic that would divert to the Foothills Parkway.

The traffic diversion estimate began with the assumption that it would function "solely as a scenic parkway; i.e., the proposed segments will not give motorists any travel time advantage over the existing roadway network." Given this assumption, ORNL created a traffic diversion model to estimate traffic volumes on the Foothills Parkway. The model assumed that only traffic oriented to/from the Gateway Communities of Pigeon Forge, Gatlinburg and Townsend plus traffic related to the Park would be attracted to the Foothills Parkway. Links parallel to the Foothills Parkway were identified and a percentage of tourist-related traffic was diverted from these links to the Foothills Parkway. Tourist-related traffic was categorized as Park-related (50 percent diversion of trips with origin or

destination within the Park), tourist-related (20 percent diversion of trips with origin or destination of Gatlinburg or Pigeon Forge) and secondary tourist related (10 percent diversion of trips with origin or destination of Townsend or the fringe areas of Pigeon Forge and Gatlinburg). For example, 50 percent of the traffic on US 411 and US 321 originating from or destined to Cades Cove was assumed to divert to the Foothills Parkway.

Foothills Parkway, A Briefing Statement, 1998

This document, prepared by the National Park Service, describes the origin and history of the Parkway from 1944 through the mid-1990's. It describes the 1944 vision for the Parkway as a "special place" and suggests that this vision may no longer be possible due to the changes that have occurred in the area adjacent to the corridor in the past five decades.

It notes that one of the original goals for the Parkway was that it would relieve traffic congestion on Park roads and the regional transportation network. The 1997 *Foothills Parkway Traffic Study*, however, suggests that the Parkway will not achieve this goal and that sections of the Parkway itself would accommodate light traffic volumes in 2026. The *Statement* also recognizes the potentially significant environmental impacts and high cost of construction.

The *Statement* concludes that additional study is needed to evaluate the 21st century viability of the Parkway and suggests that dialog of discussion is needed with a broad cross-section of interests to build a consensus as to the future of the Parkway.

Foothills Parkway - A Technical Paper for Future Strategies, 1998

This report is a stand-alone appendix to the *Briefing Statement.* It was developed by an interdisciplinary team of National Park Service, Federal Highway Administration and environmental consultant specialists which convened in 1995 to evaluate the current status of the Parkway and review various completion scenarios.

The team analyzed seven completion alternatives ranging from full build to no build. The team had at its disposal a recent traffic study prepared by the Oak Ridge National Laboratory which concluded that the Parkway will not divert substantial traffic from local roadways or have significant impact on their operation, and that traffic on the Parkway itself would be relatively light.

The study concluded that three build options involving sections D, E and F should be further explored but that "…the construction of no other section or combination of sections makes sense, when benefits are weighed against costs and impacts." It suggested that the vision could be met in principle by the completed portions of the Parkway available for use and that the Parkway should be considered in regional transportation planning efforts.

(Draft) Final Environmental Report, Foothills Parkway Section 8B, 1999

The Oak Ridge National Laboratory published this document in 1999. It considered two options: (1) to build the

project within the previously purchased right-of-way, or (2) to abandon the project. The build option considered the construction of a 14.1-mile section extending from the current terminus of Section A at U.S. 321 in Cosby to the S.R. 416/U.S. 321 area in Pittman Center.

The document describes the existing environmental setting and the resources that might be affected by construction of the roadway as well as an analysis of potential impacts. The assessment includes information on geology, soils, water, aquatic ecology, terrestrial ecology, meteorology and air quality, socioeconomics, aesthetics and archaeology and historic resources.