REPORT OF THE
VIRGINIA DEPARTMENT OF TRANSPORTATION AND THE
VIRGINIA ECONOMIC DEVELOPMENT PARTNERSHIP ON

THE UPGRADE OF REST AREAS ON VIRGINIA'S INTERSTATE HIGHWAYS

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

HOUSE DOCUMENT NO. 16

COMMONWEALTH OF VIRGINIA
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PREFACE

The 1997 General Assembly passed House Bill 1600 (the Appropriation Act). Item 505N requested the Virginia Department of Transportation (VDOT) and the Virginia Economic Development Partnership (VEPD) to perform a study showing the feasibility and costs to upgrade and/or provide new rest areas along Virginia's interstate highways. The study is required to present these options while considering such issues as safety, tourist amenities, appearance, and cleanliness. The VDOT Maintenance Division's Special Operations Section coordinated this study.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Virginia Department of Transportation (VDOT) operates 40 rest areas on its interstate highways. Nine of these sites have a welcome center staffed by the Virginia Economic Development Partnership. The average age of these facilities is 25 years. Over the past five years, the number of rest area users has increased. At some locations, the current number of customers exceeds the rest area's capacity.

In order to enhance the provision of providing ultimate service to its customers, VDOT regularly assesses each rest area and determines an improvement strategy. Such strategies include replacing rest areas with new facilities, building new rest areas where no services exist, or upgrading existing facilities.

Building new facilities or replacing facilities is feasible when no comparable services are available or when correcting a deficiency at an existing rest area is not technically possible. Some constraints that may limit improvements to an existing rest area include topography, environmental impacts, and utility resources, especially water. Another important factor that must be considered is the availability of land. In some locations, land for new rest areas is not available, thereby making the options to replace or to build new rest areas not feasible.

Currently, VDOT plans to open two new facilities in 1998 near mile marker 34 on I-64 near the community of Longdale Furnace in Alleghany County. At these sites, VDOT owns the land and already has constructed entrance ramps and parking areas. Also, there are no comparable private or public sector services within a half-hour in either direction of these sites. By the year 2001, VDOT is also considering designing a new facility on I-81 where a 103-mile gap in services exists.

VDOT has found at some locations that it is more cost effective to upgrade an existing facility to provide better services than to buy land, design, and construct new facilities. VDOT has reviewed the services at its 40 interstate rest areas and identified 22 locations where upgrades can be made to improve services. These upgrades include expanding parking areas, increasing rest room facilities, providing traveler/tourist information kiosks, increase the accessibility of the facilities for the mobility impaired and improving landscaping. These projects include the participation of both VDOT and the Virginia Economic Development Partnership.

PURPOSE

The purpose of this report is to present the costs and the feasibility of upgrading or building new rest area facilities. VDOT and the Virginia Economic Development Partnership prepared this report in response to Item 505N of the 1997 Appropriations Act (House Bill 1600). The study considers safety, tourism amenities, appearance, and cleanliness as criteria to access feasibility and to determine cost.

BACKGROUND

Currently, VDOT operates 40 interstate rest areas. The average age of the rest areas is 25 years. The location and relevant details about the sites are listed in Table 1. Figure 1 represents the site locations.

Although the amount of comparable services has increased along the interstate interchanges, this growth has not affected the rest area usage. The number of Welcome Center customers has increased over 25% from 1991 to 1996. This growth occurred statewide and no single area of the state was unaffected by it.

Given the average age of the rest areas and their continual growth, both VDOT and the Virginia Economic Development Partnership must assess the public's needs and the ability of the facilities to meet them. Where improvements are recommended, there are three options to consider:

- Add a new facility where no existing services exist.
- Replace the existing rest area with a new facility.
- Upgrade the current facility to better serve the public.

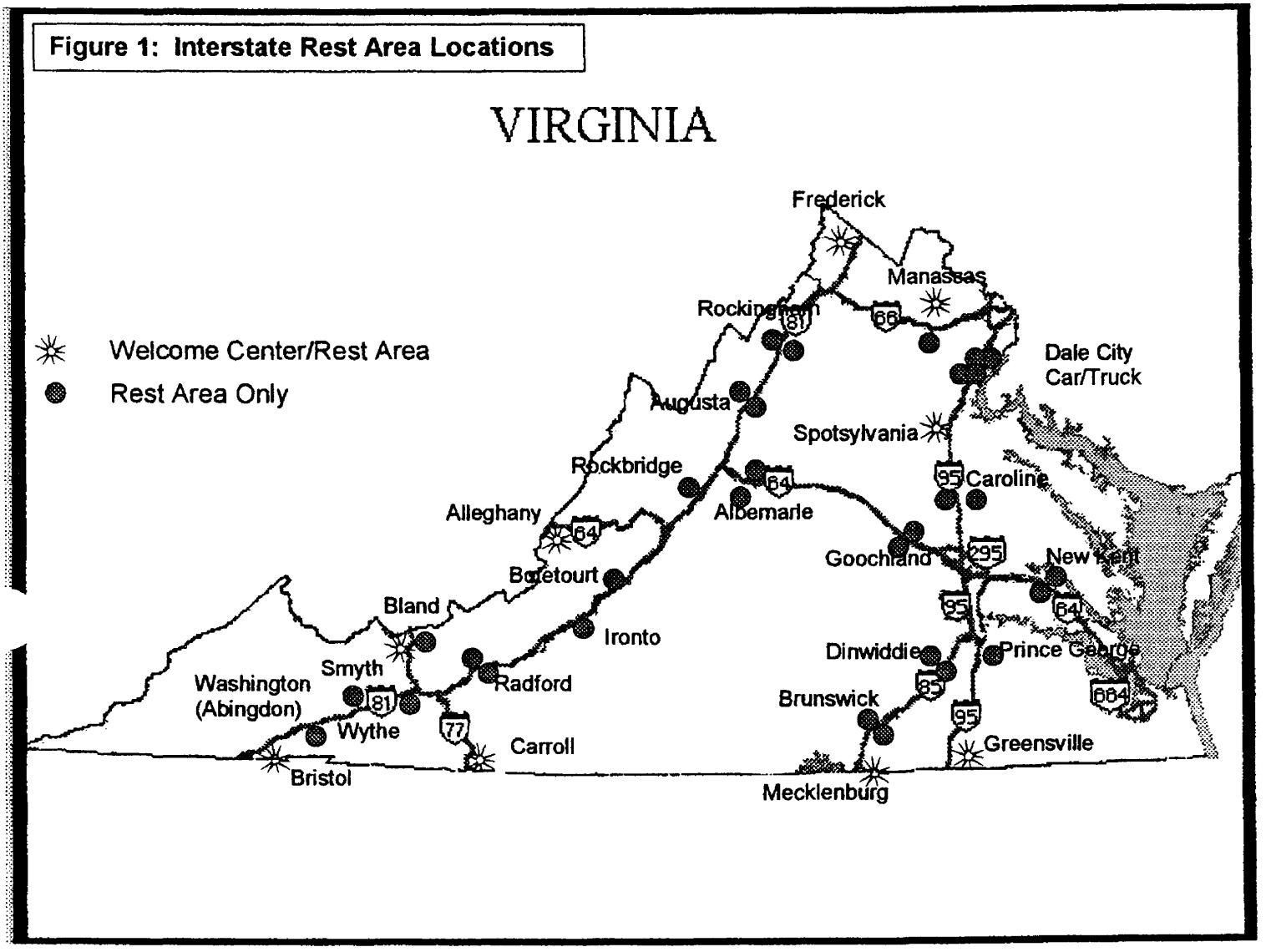
The following sections discuss each option.

Table 1: Rest Area Location

Route	County	Milepost Location	Type	
I-64 – Eastbound	Alleghany	2	Welcome Center & Rest Area	Car Only*
	*Alleghany ***	*34*	*Rest Area*	*Truck Only*
	Albemarle	105	Rest Area	All
	Goochland	169	Rest Area	All
	New Kent	213	Rest Area	All
I-64 – Westbound	*Alleghany ***	*34*	*Rest Area*	*Truck Only*
	Albemarle	113	Rest Area	All
	Goochland	168	Rest Area	All
	New Kent	213	Rest Area	All
I-66 – Eastbound	Prince William	48	Rest Area	All
I-66 – Westbound	Prince William	48	Welcome Center & Rest Area	All
I-77 – Northbound	Carroll	1	Welcome Center & Rest Area	All
	Bland	59	Rest Area	All
I-77 – Southbound	Bland	61	Welcome Center & Rest Area	All
I-81 – Northbound	Washington	1	Welcome Center & Rest Area	Car Only
	Washington	13	Rest Area	Truck Only
	Wythe	61	Rest Area	Car Only*
	Montgomery	108	Rest Area	All
	Montgomery	129	Rest Area	All
	Augusta	232	Rest Area	All
	Rockingham	262	Rest Area	All
I-81 – Southbound	Smyth	53	Rest Area	All
	Montgomery	108	Rest Area	All
	Botetourt	158	Rest Area	All
	Rockbridge	199	Rest Area	All
	Augusta	232	Rest Area	All
	Rockingham	262	Rest Area	All
	Frederick	320	Welcome Center & Rest Area	All
I-85 – Northbound	Mecklenburg	1	Welcome Center & Rest Area	All
	Brunswick	32	Rest Area	All
	Dinwiddie	55	Rest Area	All
I-85 – Southbound	Brunswick	32	Rest Area	All
	Dinwiddie	55	Rest Area	All
I-95 – Northbound	Greensville	1	Welcome Center & Rest Area	Car Only*
	Prince George	35	Rest Area	All
	Caroline	107	Rest Area	All
	Prince William	155	Rest Area	Car Only
	Prince William	155	Rest Area	Truck Only
I-95 – Southbound	Caroline	107	Rest Area	All
	Spotsylvania	131	Welcome Center & Rest Area	All
	Prince William	155	Rest Area	Car Only
	Prince William	155	Rest Area	Truck Only

* The facility will become a car only facility in two years.
** The facility will tentatively open in 1998 to accommodate trucks when the Alleghany County Welcome Center becomes a car-only facility.

Figure 1: Interstate Rest Area Locations



BUILDING NEW FACILITIES WHERE REST AREA SERVICES DO NOT EXIST

According to a 1968 study by the American Association of State Highway and Transportation Officials (AASHTO), it is not feasible to establish a minimum or average distance requirement between rest areas because many controlling factors exist. These factors include topography, traffic volume, distance between interchanges and available services, and development growth. Instead, the AASHTO study recommends that a safety rest area should be provided for short stops every one-half hour driving time (30 – 35 miles for highways with a posted 65 mile per hour limit). Currently, no regulations exist about minimum distances between rest areas.

Some state transportation departments have developed general guidelines for locating rest area facilities. For example, the State of Illinois is completing a project to provide rest area services that are spaced one hour apart. Likewise, a 1981 USDOT study suggests a one-hour spacing of rest areas. In Virginia, there are five locations where the distance between rest areas is over one hour:

1. I-64 Eastbound between the Alleghany County and Albemarle County facilities (103 miles).
2. I-64 Eastbound between the New Kent County facility and its terminus in Hampton Roads (89 miles).
3. I-64 Westbound between its terminus in Hampton Roads and the New Kent County facility (89 miles).
4. I-81 Northbound between the Montgomery County (Ironto) and the Augusta County facility (103 miles).
5. I-95 Southbound between the Caroline County facility and the North Carolina Welcome Center (107 miles).

For location 1, VDOT plans to open eastbound and westbound rest areas at its Longdale Furnace locations on I-64 in Alleghany County in the spring of 1998. These rest areas lie near mile marker 34. The right-of-way, entrance ramps, and exit ramps already exist. VDOT plans to provide portable rest rooms. The facility will be reserved for trucks only. The annual operating cost will be $52,000 per year.

The Longdale Furnace rest areas are needed for two reasons. First, the Alleghany Welcome Center will become a car-only facility. Currently, additional parking for automobile drivers, who compose most of the center's customers, is needed. The truck parking at the Alleghany Welcome Center is limited and creates safety hazards. The topography of that mountainous area prevents the expansion of both car and truck parking.

In 1996, the American Trucking Association conducted a study and determined that there is a nationwide shortage of public truck parking. Because

comparable private-sector services are unavailable in this area of I-64, (the distance between truck stops in Raphine, Virginia, and Greenbrier, West Virginia is almost 80 miles), VDOT is taking a proactive role to promote highway safety by providing the needed truck safety stops.

For locations 2 and 3, VDOT currently has no immediate plans to build rest areas along this stretch of I-64. Most of the region is in an urban area and right-of-way would be difficult to obtain. The average distance between interchanges is only 2.2 miles and comparable private sector services exist at many of these exits.

For location 4, VDOT has identified a location for a new rest area on I-81 located near mile marker 201 in Rockbridge County. Currently, this project is in VDOT's six-year plan. This proposed facility will provide rest rooms, telephones, and public parking services. By fiscal year 2001, VDOT should have the right-of-way procured for the facility and the entrance and exit ramps. The design and construction of the new facility will follow. The total estimated cost for design, land-purchase, and construction is $14,000,000. The decision is in part supported by an independent study conducted by the consultant firm, KLD Associates. In this 1989 study, factors such as costs, safety, traveling distances, and services were considered.

For location 5, it has been proposed to construct a facility near mile marker 45. VDOT has not placed this project in its six-year plan. Comparable private-sector services exist along this region of I-95. VDOT has not received any requests for rest area services at this site. VDOT will monitor this region and if there is a future demand for service, VDOT will study the issue and place the project in its six-year plan.

REPLACING EXISTING FACILITIES

The oldest rest area in Virginia opened in Greensville County in 1964. The average age of the 40 interstate rest areas is 25 years. Over this time, the number of rest area users and the public's expectations (i.e., safety, tourist amenities, appearance, and cleanliness) increase. When a facility cannot meet the public's expectations, improvements are necessary.

Often, factors exist that limit the ability to improve services. These factors include the topography of the area, the availability of additional land, water and utility services, and environmental considerations (wetlands). When such factors exist, replacing an existing facility may become a feasible option.

New rest area facilities can be designed to meet the highest safety standards, provide tourist amenities, and have a positive appearance. However, this option can also be the most difficult to implement for economic and technical reasons. First, the same factors that limit an existing rest area from expanding

may also prevent a replacement facility near the area from being built. Second, buying land, designing a facility, constructing a new facility, and closing the existing rest area will incur the greater costs compared to the other options.

For example, in 1993, VDOT desired to expand its rest area services in Smyth County by replacing it with a new facility. VDOT decided not to replace this rest area and instead to remodel it after considering the public's concerns about (1) obtaining more right-of-way and (2) the required funding.

VDOT can improve its rest areas by providing additional parking and facility capacity and improving the appearance of the existing sites. Together, these approaches are usually less expensive than constructing a new facility. Currently, there are no plans to replace any of the existing rest areas with new facilities.

UPGRADING FACILITIES

In 1994, VDOT began a plan to visit, assess and develop an approach to accomplish the most cost-effective upgrades at every rest area. The facility capacity, traffic volume, ramp locations, building size, the building age, and the building ability to serve mobility-impaired users [part of the American Disabilities Act (ADA)] are considered. By 1995, all sites had been visited. To date, these reviews identified 22 sites that require upgrades or improvements. For these sites, it is more cost-effective to make specific improvements to correct problems rather than construct a new facility.

Figure 2 identifies the locations of the facilities undergoing or scheduled for renovations. Detailed information about the location, scope, cost and status (completed, implemented/constructed, designed, or planned) of each project is presented below. The information is sorted by site. All cost figures are current forecasted amounts which are based upon engineering estimates.

I-64 Alleghany County Welcome Center/Rest Area (EB):

- Paint, buy new furniture, remodel the Welcome Center, and modify counters and other service equipment for handicap accessibility. Together, these projects cost $21,000. This project is being implemented. It is scheduled for completion in 1999.
- Provide a shelter for vending services at a cost of $60,000. This project is being designed. It is scheduled for completion in 1999.
- Expand parking capacity for automobiles, install a new water treatment system, and increase the capacity of rest rooms at a cost of $1,335,000. This project is being designed. It is scheduled for completion in 1999.

I-66 Manassas County Welcome Center (WB) and Rest Areas (EB & WB):

- Paint, buy new furniture, remodel the Welcome Center, and modify counters and other service equipment for the mobility impaired. Together, these projects cost $21,000. This project is being implemented. It is scheduled for completion by fiscal year 1998.
- Improve the buildings, improve the landscaping, and increase the number of rest rooms at a cost of $1,395,000. This project is being designed. It is scheduled for completion in 1999.

I-77 Bland County Welcome Center (SB) and Rest Areas (NB & SB):

- Repave the parking lot and provide better sidewalk accessibility for the mobility impaired at a cost of $45,000. This project is completed.
- Pilot a computerized traveler information kiosk at the Welcome Center at a cost of $15,000. Both the Virginia Economic Development Partnership and VDOT are conducting the pilot study. Pending the results from the pilot study, these kiosks may be installed at other Welcome Centers and rest areas. The pilot study will begin in December 1997.

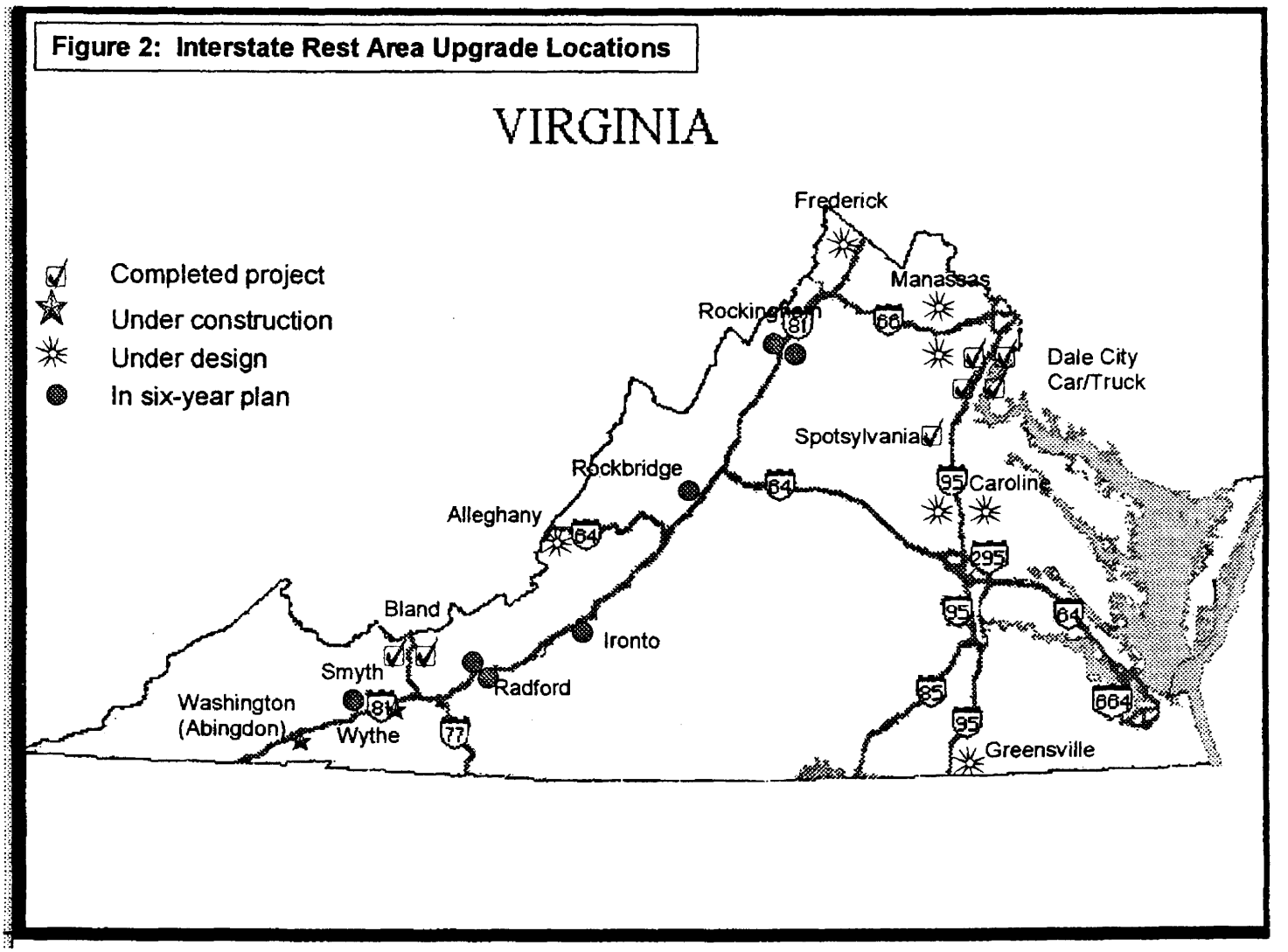
I-81 Washington County (Abingdon) Rest Area (NB):

- Provide a shelter for vending services at a cost of $60,000. This project is being implemented. It is scheduled for completion in December 1997.
- Improve the parking lots for this truck-only facility, HVAC (heating, ventilation and air-conditioning), rest room capacity, landscaping, and water services. This project will significantly expand the truck parking capacity from 36 to 110 vehicles. This project is one of the largest planned expansions to accommodate the growth of truck traffic along I-81. As stated earlier, the American Trucking Association has identified a national shortage of public truck parking. Per VDOT Traffic Engineering reports, on I-81, the total volume has increased 26% in from 1991 to 1996. The truck volume often exceeds 20%. The total project cost to improve this rest area is $6,042,000. This project is being implemented. It is scheduled for completion in December 1997.

I-81 Smyth County Rest Area (SB):

- Increase the parking lot capacity and the number of rest room facilities while increasing ADA accessibility at a cost of $2,880,000. This is a planned project. The project is scheduled for completion in 2002.

Figure 2: Interstate Rest Area Upgrade Locations



I-81 Wythe County Rest Area (NB):

- Expand the number of parking spaces from 20 to 42 vehicles. Improve the landscaping and nearly double the number of rest room facilities. The total project cost is $2,273,000. This project is being implemented. It is scheduled for completion in 1999.

I-81 Montgomery Count (Radford) Rest Areas (NB & SB):

- Incorporate a public-water service connection. Renovate the rest area buildings to improve ADA accessibility, increase the rest room capacity, and expand the parking lots at a cost of $1,890,000. This is a planned project. The design phase of this project is schedule to begin in 2001.

I-81 Rockbridge County Rest Area (SB):

- Provide a shelter for vending services at a cost of $60,000. This project is being implemented. It is scheduled for completion by December 1997.

I-81 Rockingham County Rest Areas (NB & SB):

- Expand parking capacity and the increase the number of rest room facilities while improving handicap accessibility at a cost of $1,700,000. This is a planned project to be completed in 2002.

I-81 Frederick County Welcome Center/Rest Area (SB):

- Paint, buy new furniture, remodel the Welcome Center, and modify counters and other service equipment for handicap accessibility. Together, these projects cost $21,000. This project is being implemented. It is scheduled for completion in 1999.
- Improve the water treatment system, improve landscaping, double the capacity of the rest room facilities, and improve handicap accessibility at a cost of $725,000. This project should be implemented in 1999.

I-95 Greensville County Welcome Center/Rest Area (NB):

- Paint, buy new furniture, remodel the Welcome Center, and modify counters and other service equipment for handicap accessibility. Together, these projects cost $21,000. This project is being implemented. It is scheduled for completion in 1999.
- Increase the capacity of automobile parking, improve landscaping, and nearly double the capacity of rest room facilities while improving the

ADA accessibility at a cost of $3,000,000. This facility is the busiest Welcome Center in the Commonwealth and requires additional capacity. The project should be completed in 1999.

I-95 Caroline County Rest Areas (NB & SB):

- Upgrade the rest areas to increase the rest room capacity, improve ADA accessibility, and improve landscaping at a cost of $1,150,000. The project is being designed. The scheduled completion date is 1999.

I-95 Spotsylvania Welcome Center (SB):

- Paint, buy new furniture, remodel the Welcome Center, and modify counters and other service equipment for handicap accessibility. Together, these projects cost $21,000. This project is completed.
- Pilot a computerized traveler information kiosk at the Welcome Center at a cost of $15,000. Both the Virginia Economic Development Partnership and VDOT are conducting the pilot study. Pending the results from the pilot study, these kiosks may be installed at other Welcome Centers and Rest Areas. The pilot study will begin in December 1997.

I-95 Prince William County Rest Areas (NB & SB; Car-only and Truck-only):

- Provide a shelter for vending services (all four areas) at a cost of $240,000. This is a completed project.
- Renovate the rest room facilities for ADA accessibility at a cost of $413,000. This project was recently completed.

CONCLUSION

The average age of Virginia's Welcome Centers and rest areas and growing use of these facilities require both VDOT and the Virginia Economic Development Partnership to evaluate these facilities regularly. Three feasible options to improve Welcome Center/Rest Area services are to build new facilities where services do not exist, replace existing rest areas with new facilities, or upgrade the existing rest areas. Of the three options, upgrading existing facilities is usually the most cost-effective solution. While constructing new facilities is always an option, topographic, utility, land, or economic constraints may make it not feasible.

The Virginia Department of Transportation and the Virginia Economic Development Partnership have taken a proactive approach in evaluating and accessing its customer needs. Together, the agencies consider this task as a continuous program to meet the goal of providing the utmost customer service as possible. Both agencies will continue to use safety, tourism needs, and cleanliness as key indicators of their success.

Item	Item Details($) First Year	Item Details($) Second Year	Appropriations($) First Year	Appropriations($) Second Year
505				

These funds shall be used for planning and development purposes.

J. Upon the selection of the corridor for the "Coalfields Expressway" by the Commonwealth Transportation Board, the Department of Transportation shall identify certain segments to begin preliminary engineering in the 1996-98 biennium. The Department of Transportation shall report back to the Chairmen of the Senate Finance and House Appropriations Committees prior to the 1998 Session on its progress in conducting preliminary engineering on these segments.

K. It is the intent of the General Assembly that the Commonwealth Transportation Board and the Virginia Department of Transportation proceed expeditiously with the preliminary engineering for I-73.

L. The Department of Transportation shall perform a study of the costs, traffic impacts, and environmental consequences of allowing single occupant vehicle access between the Fairfax County Parkway, the Franconia-Springfield Parkway, and I-95 in Springfield. The study shall include participation by the Department of Rail and Public Transportation, all affected localities, the Washington Metropolitan Area Transit Authority, and others as deemed appropriate by the Department. No design or construction funds shall be expended on any such project until the Department of Transportation reports to the Commonwealth Transportation Board and to the Senate Finance, and the House Appropriations Committees on the results of this study.

M. The $1,704,678 from the general fund appropriated for this program in Item 605 of Chapter 853, 1995 Acts of Assembly, has been reappropriated and used by the Department of Transportation for Transportation Trust Fund purposes.

N. The Department of Transportation, in conjunction with the Virginia Economic Development Partnership, shall perform a study of the feasibility and cost of upgrading and/or providing new rest stops along Virginia's interstate highway network. This study shall present options that consider such issues as safety, tourist amenities, appearance, and cleanliness. The study shall be presented to the General Assembly no later than December 1, 1997.

O. Out of this appropriation additional federal funds of $89,234,561 shall be allocated as required by federal law from the "Access Roads and other Construction" subprogram in the following manner: $67,761,323 for statewide purposes at the discretion of the Commonwealth Transportation Board; $14,507,496 for regional purposes; $3,482,871 for enhancement purposes; and, $3,482,871 for safety purposes. In addition, $14,548,439 shall be allocated as required by federal law to other subprograms in the following manner: $9,208,392 for Secondary Construction; $3,918,467 for Urban Construction; and $1,421,580 for