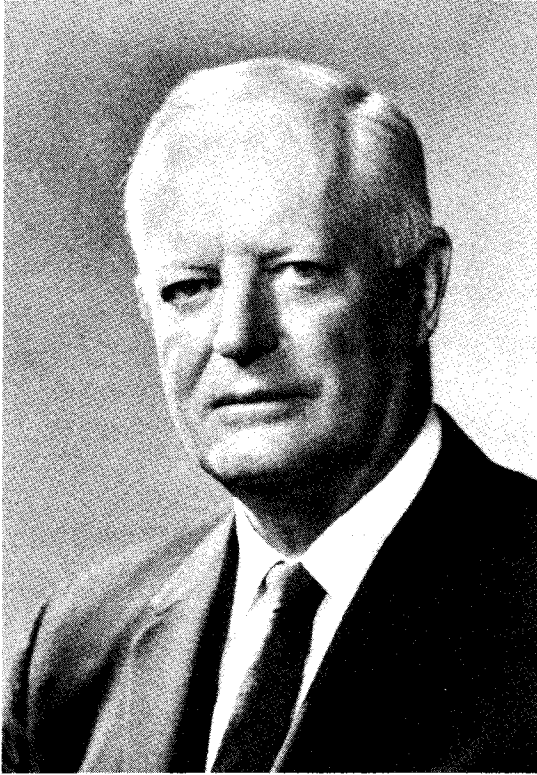


CONFRONTING VIRGINIA'S TRANSPORTATION CHALLENGE

**PHASE I Report of
The Commission on Transportation
in the Twenty-First Century**



Dedication

If an era can close with the death of a single man, then such occurred when State Senator Edward E. Willey died.

Ed Willey sought and secured power and prestige, not for the sake of personal gain or notoriety, but to serve his constituency and his state. And he did so - for 34 most remarkable years.

The Senator gave meaning and dimension to the term "citizen-legislator." A pharmacist by trade, Senator Willey had the gifts of statesmen.

In public life, knowledge carries authority. The Senior Senator had a fearsome and unsentimental memory. He gave no quarter: Profligate spending of taxpayers dollars and bureaucratic waste were the game. Ed Willey was the hunter.

Others talk of integrity and honor, but Ed Willey was not a man of rhetoric. His principles were manifest in his deeds.

Senator Willey never shrank from a great challenge. He accepted the chairmanship of the Commission for Virginia's Transportation in the 21st Century as he accepted all tasks: with enthusiasm and determination.

Losing the chairman is this commission's regret.—But most we miss the man.

With these words we dedicate this report in his memory.

Foreword

August 1, 1986

The Honorable Gerald L. Baliles
Governor of Virginia
Commonwealth of Virginia
Richmond, Virginia 23219

Dear Governor Baliles:

On behalf of the Commission on Transportation in the Twenty-First Century, it is my privilege to transmit to you a summary of our findings and recommendations.

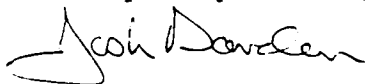
At the initial meeting of the Commission in February, you charged us with confronting Virginia's transportation challenge and with "charting a course to lead Virginia into the 21st Century." More specifically, you requested that in Phase 1 of our study, we:

1. Confirm the critical highway and transportation needs of the Commonwealth;
2. Explore alternative means of financing transportation; and
3. Examine the feasibility of establishing a separate fund for highway construction.

In March Senator Willey appointed Subcommittees to address these three major areas of your concern. The report which follows represents a culmination of the tireless efforts of these three Subcommittees, our four Advisory Committees, and members of the support staff.

As you suspected, Virginia is facing a serious transportation problem. Important decisions must be made now to avoid the impairment of our future mobility. While the work of the Commission continues, this report outlines the extent of our transportation needs, how the revenues needed to confront these needs can be raised, and indicates how the Commonwealth's transportation funds can be utilized in the most efficient and effective manner. We commend these recommendations to you and to the General Assembly for serious consideration.

Respectfully submitted,



Joshua Darden, Jr.
Vice Chairman

Contents

	PAGE
EXECUTIVE SUMMARY	4
INTRODUCTION	6
CURRENT AND PROSPECTIVE TRANSPORTATION NEEDS	12
CAPACITY OF THE CONSTRUCTION INDUSTRY	17
FINANCING TRANSPORTATION	19
ALLOCATING AND MANAGING TRANSPORTATION FUNDS	24
CONCLUSION	28
BIBLIOGRAPHY	29
THE COMMISSION	30
ADVISORY COMMITTEES	31
STAFF TO THE COMMISSION	32

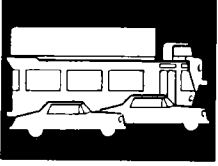


EXECUTIVE SUMMARY

Major Findings and Recommendations:

1. The Commonwealth has more than \$10 billion in present day highway construction needs.
2. Within a 20 year planning perspective, Virginia will face an additional \$10 billion in highway construction needs.
3. Virginia's ports, airports, rail, and mass transit systems will have needs of more than a billion dollars during the coming decade.
4. Meeting current highway construction needs and the need of mass transit, seaports, and airports will require approximately \$6-\$7 billion from state sources during the coming decade.
5. Virginia's construction industry has additional construction capacity. It is not unreasonable to expect that the industry could carry \$1 billion in contract balances (roughly double the current level) by the end of 18 months and as much as \$2.2 billion over the longer period of 15 years and beyond.
6. A commitment on the part of the Commonwealth to a stable, predictable, long-term construction program is critical to smooth industry adjustment, a competitive bidding climate, and a cost effective expenditure of funds.
7. Revenues to meet transportation needs should be derived from a state sales tax increase of .75%; a four cent per gallon increase in the gas tax; an increase in the titling tax to 4% with trade-in; and interest on current and future highway fund balances.
8. A test case should be brought before the Virginia Supreme Court in order to clarify the use of 9 (D) pledge bonds for transportation purposes.
9. Constitutional and statutory changes necessary to give localities the flexibility to raise revenue and otherwise participate in meeting local transportation needs should be enacted.
10. The Construction Allocation Formula adopted by the 1985 General Assembly is the best means of distributing funds to meet the Commonwealth's road system needs, except in those instances where project-specific funding mechanism, such as tolls, are deemed to be more appropriate.

11. In order to maximize and coordinate the investment, management, and distribution of new revenues for transportation needs, it is recommended that such revenue be concentrated into a single entity that would have authority to coordinate financing of all modes of transportation. This could be accomplished by reconfiguring the existing Virginia Highway and Transportation Board by expanding its authority and membership, and by renaming the Board the "Virginia Transportation Board" and the agency "The Virginia Department of Transportation."
12. The Virginia Transportation Board should be given the authority to use 9(c) revenue bonds for toll projects and 9(d) pledge bonds when additional funds beyond immediately available revenues are needed to pay for transportation projects.
13. All new revenues generated for construction as a result of any legislation passed in the 1986 Special Session, as well as revenues left over in the current Highway Maintenance and Construction Fund after maintenance needs have been addressed, toll revenues, and interest on Trust Fund balances, should flow into a new "Transportation Trust Fund."
14. Eighty-five percent of all new revenues should be earmarked for meeting the critical highway needs of the Commonwealth, the remaining 15% should be earmarked for ports, airports, and mass transit needs.



The Transportation Challenge

Virginia's transportation problem touches all parts of the Commonwealth.

In many of our cities and suburban jurisdictions, our major challenge is that of chronic traffic congestion. Intraurban trips which once took only minutes may now take hours to negotiate.

Testimony provided to the Commission at its public hearing in northern Virginia illustrates the magnitude of this problem. As one speaker pointed out at that meeting...

The average Prince William County commuter spends two or more hours on the road each business day getting to and from work. In terms of lost productivity on the job and time lost from home and family, on a yearly basis: EACH commuter loses about 250 hours, 8 commuters lose one work year (2000 hours), and 35 commuters lose a whole year of life (8760 hours).

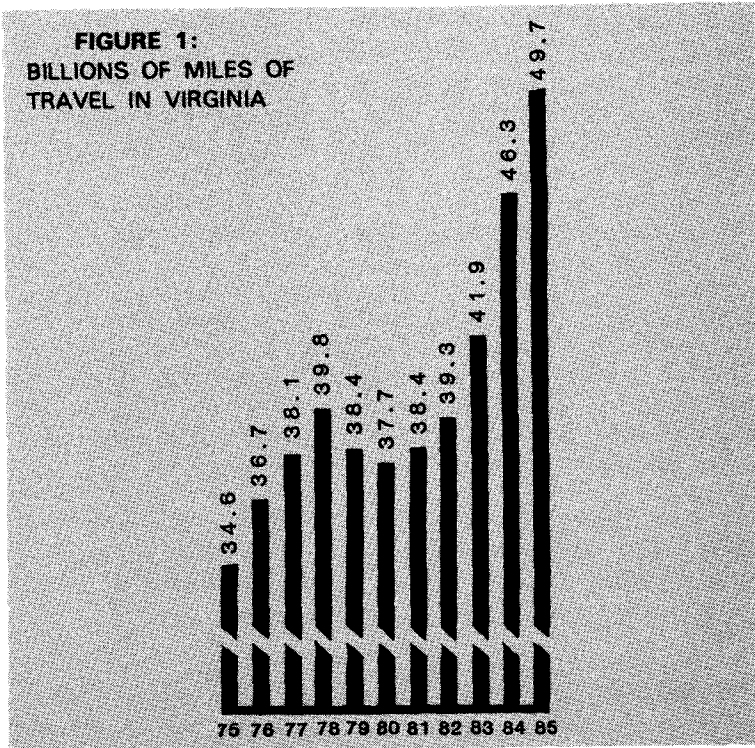
Prince William County is not unique. Comparable statistics from many other jurisdictions within the Commonwealth are just as discouraging.

The mental frustration of spending hours in a traffic jam, and the time lost from work, home, and family, are not the only costs associated with traffic congestion. Such congestion also:

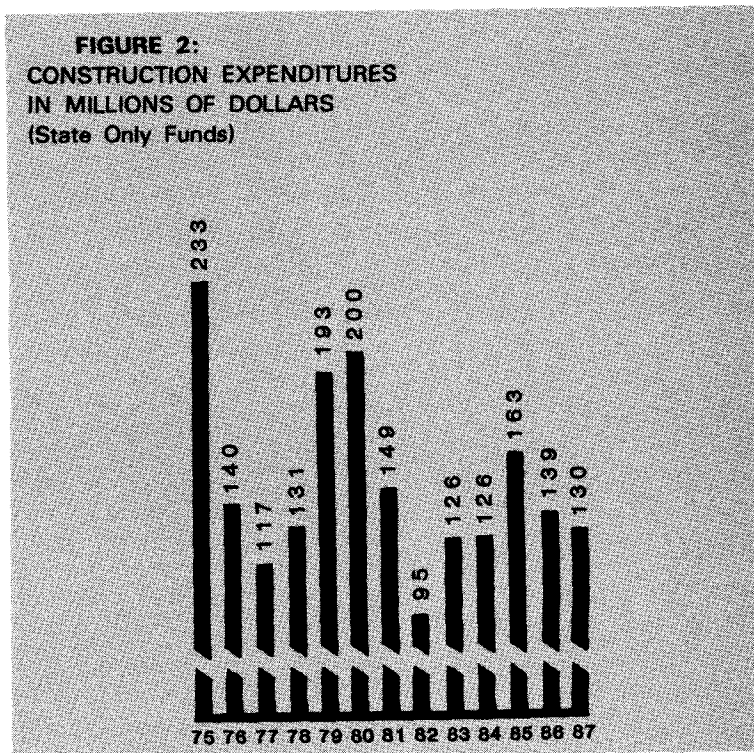
- Increases vehicle accident rates and operating costs;
- Contributes to air pollution problems;
- Increases shipping costs of raw materials and goods produced in the Commonwealth;
- Reduces industrial productivity and business efficiency; and as a result of all these factors;
- Serves as an impediment to increased economic development.

While the congestion problem is the result of many factors, it is basically a problem of the traffic on Virginia's roads outpacing the Commonwealth's highway construction program.

Traffic on Virginia roads has increased from 34.6 billion miles of travel in 1975 to 49.7 billion miles in 1985.



What has not increased is state funding of highway construction; in fact if the following graph were to be adjusted for inflation, it has plummeted.



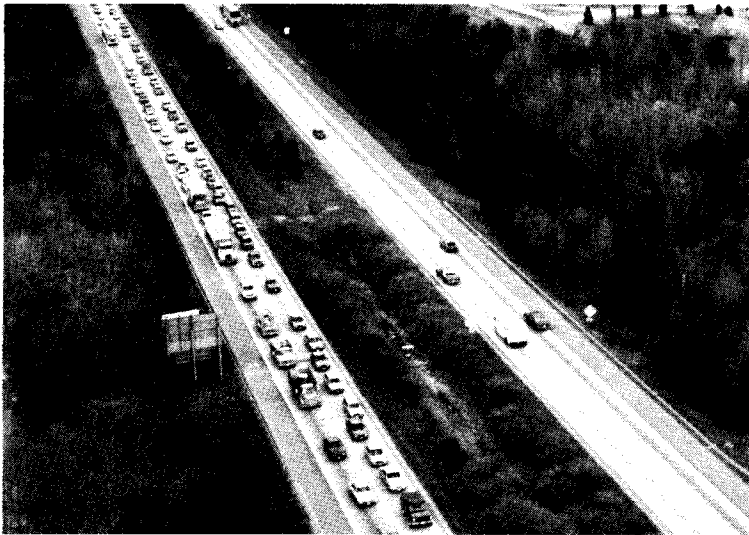
In the more rural areas of the Commonwealth, the major transportation problem is not one of congestion, but rather one of inaccessibility. Plagued with roads that are frequently unpaved, have excessive grades, limited sight distances, and very often no shoulders, -residents of rural Virginia face unsafe road conditions on a daily basis and must spend an inordinate amount of time and money to transport their coal, lumber, and agricultural products to market, or bus their children to school, or simply to get to and from work.

Towns and cities within the more rural areas of the Commonwealth face similar handicaps due to inaccessibility. Because of inadequate roads and access to other modes of transportation, such communities are often unable to compete successfully with surrounding states for tourist trade and new industries. As a result, some of our rural communities are finding it exceedingly difficult simply to maintain their current economic and population bases, let alone to expand them.

At the Commission's public hearing in Abingdon, one speaker very articulately explained the situation in Lee County and other rural communities of the Commonwealth. He stated...

The very future, especially the economic well being of Lee County citizens, will depend on a better, more efficient transportation system. The coal and farming industries which have been the economic backbone of our country are both anemic and degenerating. If Lee County . . . is to experience any sort of economic recovery, a new and different industrial base must be established. This simply will not happen without better highways.





Congestion, inaccessibility, and safety, while certainly major problems, are unfortunately not the only transportation challenges confronting the Commonwealth. Throughout Virginia there are increasingly vocal call for the expansion of public transportation to meet the needs of commuters and of special populations (e.g., the handicapped, the elderly, and lower-income households). Many of Virginia's highways and bridges are reaching the end of their design lives, necessitating the rehabilitation or reconstruction of many structures in the not-to-distant future. Industrial rail access is inadequate in many parts of the State and must be increased if we are to enhance Virginia's climate for economic development. Finally, passenger traffic and goods moved through the Commonwealth's airports and seaports is continually increasing, requiring the expansion of many existing facilities, and in some instances, the creation of new ones.

HOW CAN VIRGINIA COPE WITH THESE DIVERGENT TRANSPORTATION CHALLENGES?



Commission on Transportation In the Twenty-First Century

Formation of the Commission

Recognizing the magnitude of the Commonwealth's transportation challenge, and the fact that if left unattended the problems and costs associated with addressing them would only increase, the "Commission on Transportation in the Twenty-First Century" was created in January at the urging of the Governor Gerald Baliles, and by a joint resolution of the Virginia House and Senate. As called for in the legislation forming it, the Commission is composed of:

- former Governors of Virginia;
- four members of the Virginia Senate, appointed by the Committee on Privileges and Elections;
- six members of the House of Delegates, appointed by the Speaker of the House; and
- fourteen members at large, appointed by the Governor.

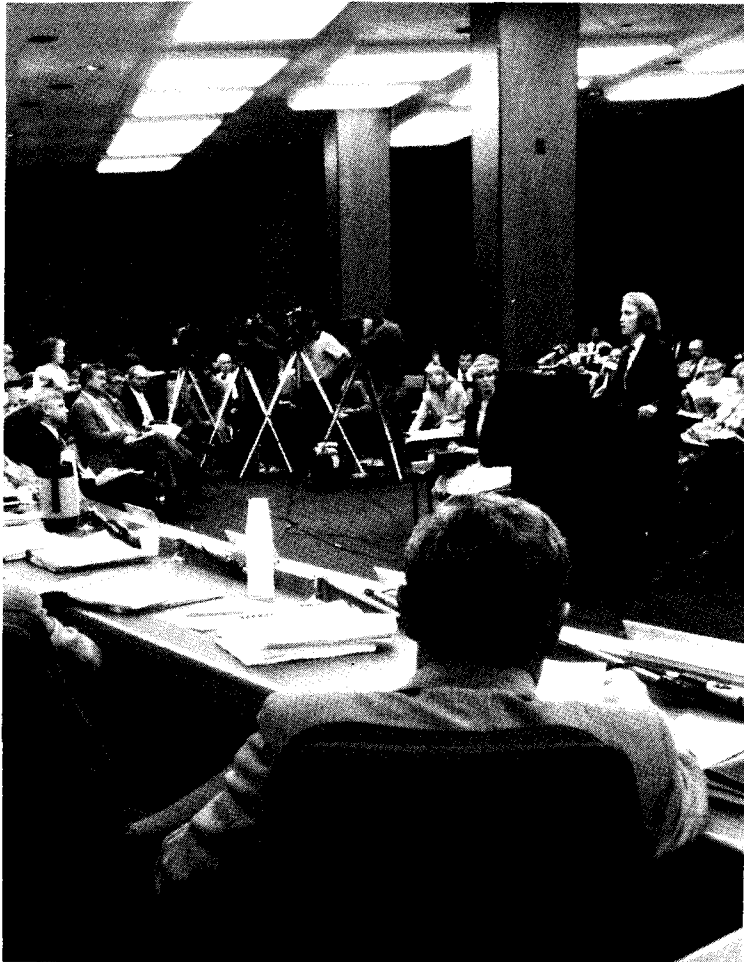
In addition to the Commission itself, four advisory groups were appointed to provide advice and counsel to this distinguished body. The Advisory Committees include Virginians from every area of the Commonwealth who possess valuable expertise in local government, and the technical, legal, or financial aspects of Virginia's transportation problems.

The Commission is staffed by volunteers from academia, and from state and local governmental agencies.

The Commission's Charge

The charge of the Commission, as issued by the Governor at its initial meeting, is very straightforward. In Phase 1 of its work, on which this document reports, the Commission was to:

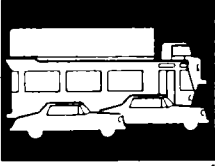
- Confirm the critical highway and transportation needs of the Commonwealth;
- Explore alternative means of financing transportation; and
- Examine the feasibility of establishing a separate fund for highway construction.



In Phase II of its work, to be completed late next year, the Commission will shift its focus to other modes of transportation, and to the roles local governments could play in financing and controlling transportation networks.

The Current Report

The report which follows summarizes the results of the Phase I activities of the Commission. It is divided into five major Chapters. Chapter 2 discusses the methods employed to confirm the critical highway and transportation needs of the Commonwealth and outlines the extent of those needs. Chapter 3 examines the ability of Virginia's construction industry to respond to new transportation initiatives without having an inflationary impact on prices. Chapter 4 suggests how a program designed to address our transportation needs could be financed. Chapter 5 outlines a strategy aimed at utilizing the Commonwealth's limited fiscal resources for transportation in a more efficient and effective fashion. These basic chapters are supplemented with a brief summary of the findings and recommendations of the Commission, and a bibliography of previously published Commission reports.



Current and Prospective Transportation Needs

Confirming the Needs

To obtain input from the citizenry of the Commonwealth, public hearings were conducted in locations scattered throughout the State during the first week of April. As indicated by Table 1, below, more than 720 individuals attended these hearings, some 230 of which provided oral testimony to the Commission. In addition, these hearings generated more than 1500 pages of written testimony, much of which was received from individuals, community groups, and government officials who were not able to appear personally.

TABLE 1: PUBLIC HEARING STATISTICS

Place	Attendance	# of Speakers	# of hours
Charlottesville	150	35	3 hrs 15 min
Richmond	140	40	4 hrs 30 min
Prince William	175	65	6 hrs 40 min
Virginia Beach	125	45	3 hrs 55 min
Abingdon	130	45	4 hrs 30 min
TOTALS:	720	230	23 hours

Written transcripts were made of all testimony and every construction project submitted was tallied. The computer printout listing all the projects mentioned totaled 134 pages. To validate this computer listing, a survey was undertaken of all counties, cities, towns, and planning district commission in the State. Each jurisdiction was provided with the listing of needs generated through the public hearings and asked to assign either a high, medium, or low priority to the listed projects and to add any high priority needs which did not appear. Jurisdictions were also asked to assign a priority to unpaved roads and to mass transit for their locality. As of June 10th, the Commission had received some 164 responses to this survey.

An additional approach in confirming the Commonwealth's transportation needs, was the review of needs assessment information generated by the Virginia Department of Highways and Transportation. In 1984 VDH&T had completed a three year study which listed highway construction needs through the year 2005. The Joint Legislative Audit and Review Commission validated the procedures used by VDH&T to establish the needs listing and utilized the listing in its review of highway funding. As indicated in Table 2, the current estimated cost of the projects on this 20-year projection of needs is over \$20 billion, including federal and state funding.

TABLE 2: COMPONENTS OF THE 20-YEAR NEED PROJECTION

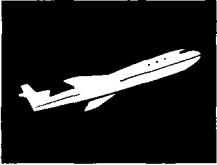
Interstate	\$ 2.409 billion
Primary	5.623 billion
Secondary	4.705 billion
Unpaved Roads	1.866 billion
Urban	4.295 billion
Special Projects	1.602 billion
Total 20-Year Need	\$ 20.500 billion

To determine the magnitude of Virginia's immediate problem, the Commission's Critical Needs Subcommittee directed VHD&T to compile a list of the most critical needs which should be funded in the current Six Year Construction Plan if revenue were available. As suggested by Table 3, the estimated cost to meet these present day needs is \$10.225 billion dollars. Over the next 10 years it is estimated that approximately \$3 billion of this \$10.2 figure could come from federal sources, depending upon Congressional action to balance the budget.

TABLE 3: VIRGINIA PRESENT DAY NEEDS

All projects currently on the Six Year Plan even if not fully funded.....	\$ 3.156 billion
High priority from needs assessment process described below.....	2.744 billion
High priority special projects advanced by tolls or local funding.....	1.602 billion
Secondary Roads	
High priority Collectors and Arterials..	1.501 billion
Local Road needs587 billion
Unpaved Road needs412 billion
Transit	
Six Year Projection243 billion
Total Present Day Needs	\$10.225 billion

As indicated in Table 3, the estimate of present day needs consist of all projects within the Six Year Plan, funded or not, as well as mass transit and other high priority needs. High priority projects were determined utilizing weighted criteria developed by VDH&T, which took into account: existing and projected traffic levels as compared to the capacity of the road; the function of the road (i.e., main artery, collector, local); the current and projected number of vehicles using the road per day; any geometric problems the road might have, such as curves, sight distances, etc.; accidents rates (counties only); Route continuity (i.e., bottlenecks); and cost related to future vehicle miles traveled.



Other Transportation Needs

The needs identified above were primarily for highway projects, although some money for mass transit was included since such funding flows through the Virginia Department of Highways and Transportation. What about other transportation needs? The Commission believes that funding decisions made by the General Assembly should not only be made in the context of \$10.2 billion in present day needs and the expected \$10 billion in additional needs between now and the year 2005. Funding decisions should also recognize the projected needs of other modes of transportation: mass transit, ports, airports, and rail.

While the Commission will examine the needs of other transportation modes in greater detail during Phase II of its work, the final step in confirming the Commonwealth's transportation needs was to examine the needs of the other modes. This was accomplished by soliciting testimony from the providers of such services. This testimony supplied the Commission with the following general picture of these needs:



Roanoke Regional Airport

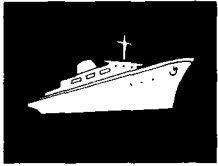
Airports Virginia has 55 publicly owned airports. Revenue needs have been met predominately by the Federal Aviation Trust Fund, airport fees and concessions, aircraft personal property taxes, local general revenues, and bonds. State allocations from the Aviation Special Fund were \$1.8 million last year, derived principally from the state aviation fuel tax. Airport needs over the next 10 years are projected to total over \$250 million, exclusive of Washington National and Washington Dulles International Airports.



Northern Virginia Metro Stop

Mass Transit \$35 million in state assistance is currently given to 31 systems throughout the Commonwealth. In 1985 the operation of these systems was financed by fares (51.4%), local subsidies (23.8%), federal grants (10.8%), and state funds (14%). Capital construction has been funded by revenue bonds, local general obligation bonds, and federal and state funds. Preliminary estimates from a consultant study released June 17, 1986, indicate a future need of \$669 to \$470 million in state funding over the next six years, assuming the continuation of state share of funding for fuels, tires, parts, and administration as adopted in the 1983 Appropriations Act. The total cost of capital alone, without regard to the state share is \$705 million over the next six years. These estimates do not include possible establishment of new systems.

Rail For the first time, the 1986 General Assembly adopted budget language authorizing funding of "industrial access rail tracks if construction of these tracks will have a positive impact upon the economic development of the State." The future cost of such projects is unknown. Commuter rail was also funded for the first time in the 1986 Assembly and represents a transportation alternative for several areas of the Commonwealth, which might seek substantial state support in the future.



Norfolk International Terminal

Ports The Virginia Port Authority has substantially increased its volume of activities by 35% in the last year alone, from 2.7 million tons in 1984 to 3.6 million tons in 1985. By accepted industry standards, the Port of Hampton Roads will be operating at well over 100% of capacity by 1991 without additional expansion. Since 1972 the Virginia Port Authority has financed its capital investments through revenue bonds (\$91.7 million), money from the state General Fund (\$85.4 million), fees and other special funds (\$58.9 million) and state General Obligation bonds (\$9.4 million). Port expansion over the next 10 years is estimated at a total cost of \$300 to \$400 million.

Except where indicated above for mass transit, the projected needs are total needs. No recommendations are intended regarding the level of state funding which might be authorized to meet those needs.

Conclusion

It is clear that the highway and transportation needs of the Commonwealth are massive. To meet just our present day needs within the next decade would require a transportation program of at least a billion dollars per year. Unfortunately, there is no reasonable alternative if Virginia is to maintain its economic base and quality of life. As was pointed out in our public hearing in Abingdon ...

Good transportation access is a key element in maintaining and improving the economic viability and social well being of an area. Transportation routes are the thread which tie together markets, hospitals, schools and government ... Adequate transportation is more than a mere convenience; it is a vital element in maintaining adequate industrial and commercial development. The question is not whether we can afford to improve transportation in Virginia, but can we afford not to improve it?



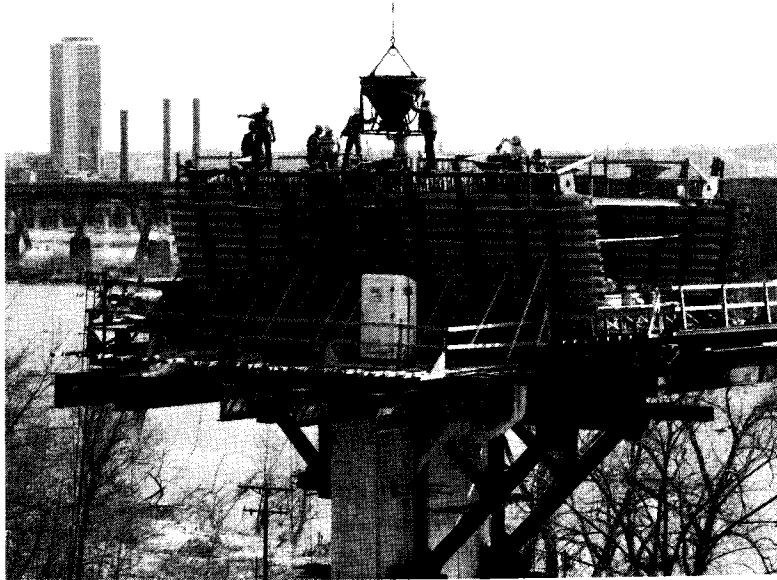
Two important questions have been raised regarding the capacity of the Commonwealth's construction industry. First, is Virginia's construction industry capable of handling a major new transportation initiative? Second, how would an increase in the demand for construction impact prices?

The ability of the construction industry to absorb additional funds, and the impacts of such funding initiatives on bid prices are issues of crucial importance to the State's transportation program. To the extent that Virginia's construction industry either could not handle additional demand, or that such demand would have a major long-term inflationary impact on the costs of new transportation facilities, initiatives of the Commonwealth might have to be curtailed. Thus, before the needs identified in the previous chapter can be addressed, we must first determine what we are actually capable of doing.

Three basic sources of information were utilized by the Commission's Subcommittee on VDH&T Funding Procedures to assess how the construction industry might respond to new transportation initiatives. First, a telephone survey of the transportation finance officers in Pennsylvania, Maryland, West Virginia, Tennessee, Kentucky, and North Carolina was conducted to identify major highway funding initiatives approved or being proposed. Second, testimony was solicited from industry representatives regarding their assessment of capacity. Presentations were made to the Subcommittee by the Presidents of both the Virginia Road and Transportation Builders Association and the Virginia Asphalt Association. Finally, a major study was undertaken on behalf of the Subcommittee by the Senior Economist of the VDH&T Highway and Transportation Research Council. This study examined the industry's capacity based upon records from the Department of Highways and Transportation's prequalification bid process; evaluated the construction industry's adjustment to changes in funding levels in the past as an indicator of their possible response to future funding increases; and presented some practical methods by which the adjustment impacts of funding increases could be softened.

Findings from these undertakings suggest that:

1. Variability and uncertainty which has historically characterized Virginia's construction program has led to losses of contractors, untimely equipment replacement, and instability in bid prices.
2. Industry is very responsive to program changes whether of an increasing or decreasing nature.



Lee Bridge Construction Richmond

3. Industry has the ability to carry contract balances significantly above current levels in the time frame of 12 to 18 months, particularly if the program is seen as stable and continuing.
4. Within a time period up to ten years and beyond, the market place and the stability of the program will dictate the level of industry capacity.
5. Although North Carolina and Tennessee have major highway construction initiatives, there is no clear indication as to how this may affect industry capacity in Virginia.

The above findings lead the Commission to conclude that a commitment by the Commonwealth to a stable, predictable, long-term construction program is critical to smooth industry adjustment, a competitive bidding climate, and a cost effective expenditure of funds. Further, it is clear that the industry has additional capacity. It is not unreasonable to expect that the industry could carry \$1 billion in contract balances (roughly double the current level) by the end of 18 months and as much as \$2.2 billion over the longer period of 15 years and beyond.

These conclusions are based upon the following assumptions: that any increase in construction funding will be widely distributed geographically and programmed in such a fashion as to encourage smooth industry adjustment; that there are no major changes in the environmental or other regulatory processes governing construction; that contractors will continue to be prequalified on advertised construction; that bordering states other than Tennessee and North Carolina not undertake major construction programs; and that state force construction will continue to be used as a cost effective supplement to contract construction.



The Need

As suggested in Chapter 2 of this report, the critical transportation needs of the Commonwealth are staggering. To meet existing highway construction needs and the estimated 10-year needs of ports, airports, rail, and mass transit, will require the spending of between \$11-\$12 billion during the next decade. Part of this figure will be offset by: federal assistance (currently estimated at \$3.9 billion), existing programmed state revenue (\$.4 billion), local and special revenues (\$.4 billion), and toll and other special financing (up to \$.8 billion). Nonetheless, the Commonwealth will still have to raise an additional \$6-\$7 billion to meet our critical transportation needs. Where will such funds come from?

Sources of Revenue

To determine how best to raise the revenues needed the revenue producing potential of both General Fund and Highway Fund sources were examined. Some of the financial options explored included:

- Increases in the individual income tax;
- Increases in the corporate income tax;
- Increases in the sales and use tax;
- Increases in the tax on public utilities;
- Inclusion of selected services in the sales tax base; and
- Increases in nongeneral fund sources related to transportation (i.e., gas tax, road tax, vehicle plates fees, titling tax with trade-in, interest on highway fund balances, motor vehicle rental tax, title fees, driver's license fees, road tax differential, aviation fuel tax, and plate increases for taxis, buses, rental trailers, motorcycles, temporary plates, and reissue and transfer plates.)

In exploring each option, equity issues were examined, as were the likely impacts on Virginia's competitive advantage with other states. Virginia ranks 45th in per capita sales tax burden, and 13th in per capita income tax burden. Virginia's 15¢/gallon motor fuels tax compares to 12¢ to 17¢/gallon in bordering states.

Virginia's sales tax rate is not only relatively low, but sales and gasoline taxes are paid by tourists and by other highway users who are exempt from the state's income tax, including those who maintain official residency in another state.

Finally, to meet the state's critical transportation needs it was necessary to put together a funding package which could generate \$500 to \$700 million annually. Highway user fees alone cannot produce that level of funding. A general tax increase is not only required, but it was determined to be appropriate because of the essential role transportation plays in the economic growth of the Commonwealth. Only with continued economic growth will Virginia be able to fund education and human service programs.

Following a comprehensive review of a host of possible alternatives, the Commission recommends that the revenue needed to meet the Commonwealth's transportation needs be raised utilizing four sources of funds:

1. A .75% increase in the state sales and use tax,
2. A 4 cent per gallon gas tax increase,
3. An additional 2% increase in the titling tax, with an allowance for trade-ins, and
4. Interest on current and future highway fund balances.



As indicated in Table 4, below, this combination of revenue sources will generate approximately \$571.5 million in FY 1988, and approximately 6.3 billion dollars over the next decade. Recognizing that the Commonwealth has other pressing needs, this option also gives the General Assembly the flexibility to add an additional .25% to the sales and use tax for other General Fund needs.

TABLE 4: RECOMMENDED REVENUE SOURCES FOR TRANSPORTATION

(Dollars in millions)

Sources	FY88	5 year Total	6 year Total	10 year Total
+ .75% Sales Tax	301.5	1,753.0	2,103.6	3,506.0
+4 Cent Gas Tax	128.8	642.8	771.4	1,285.6
+2% Titling Tax	119.1	663.0	795.6	1,326.0
Interest on Funds	22.1	98.1	117.7	198.2
TOTAL	571.5	3,156.9	3,788.3	6,313.8

How would these funds be used? The Commission recommends that 85% of all new revenues be devoted to meeting the critical highway construction needs of the Commonwealth, with the remaining 15% being earmarked annually for the needs of airports, seaports, and mass transit.

Bonds

An exhaustive review by the Commission's Legal Advisory Committee suggests that there are four types of bonds, which could be used, within Constitutional limitations and market requirements, to finance an expedited overall transportation construction program. These four types are:

- Full faith and credit bonds, issued under Section 9(b) of the Constitution;
- Toll bonds, issued under Section 9(c) of our Constitution; and
- Two different types of bonds that can be issued under Section 9(d) of our Constitution.
 - moral obligation bonds, not backed by full faith and credit; and
 - pledge bonds backed by the pledge of specific sources of revenue.

Virginia has already issued three of these four types and could do so again. It has never, however, issued 9(d) pledge bonds.

The Commission endorses the increased use of 9(c) bonds to pay for revenue-generating transportation projects where toll revenues will pay the debt service on the bonds. The Commission also supports the proposal that a revolving pool of funds to pay the up-front costs of toll projects be established. This front-end money can be repaid to the pool out of the bond proceeds once a project is completed and bonds are sold.

The Commission endorses the use of 9(d) pledge bonds following a successful test case in the Virginia Supreme Court. These bonds should be sold at such times as existing revenue streams are not sufficient to support all critical transportation needs.

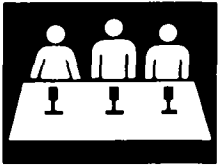
The Commission supports the need for debt limits in the 9(d) enabling legislation similar to those constitutional limits for 9(b) and 9(c) bonds. An appropriate limit would be that in any four year period, authorized debt cannot exceed 1.15 times the average annual tax revenues derived from taxes on motor fuels and the sale of motor vehicles in the three fiscal years immediately preceding the authorization of bonds. Furthermore, the Commission believes that a cap needs to be established on total 9(d) pledge bonds for transportation that may be outstanding at any one time. The Subcommittee suggests a limit of \$1 billion.

The Commission recommends against using 9(b) General Obligation Bonds to fund transportation projects. The construction industry requires a steady, reliable source of construction funds in order to achieve and maintain an accelerated construction capability. The level of uncertainty surrounding General Assembly approval and the voter referendum which would be required with 9(b) bonds, makes this funding approach less suited for transportation funding, than 9(c) or 9(d) pledge bonds.

Local Financing Options

In order to permit localities to augment State transportation revenues, a variety of options could be made available to them. Essentially, these options would allow localities additional authority to receive contributions, raise revenues, or sell bonds for transportation construction purposes. While such options will be examined in much greater detail in Phase II of the Commission's work, the following options were identified and reviewed:

- Parking Taxes
- Impact Fees
- Special Assessment Districts
- Tax Increment Financing



Allocating and Managing Transportation Funds

A number of questions have been raised related to the funding of future transportation initiatives within the Commonwealth. These questions revolve around two major issues:

1. The Allocation of Funds for Roads and Highways
2. The Management of Transportation Funds

The Allocation of Funds for Roads and Highways

Two questions have been raised related to the allocation of funds for roads and highways. The first relates to problems associated with our current Highway Maintenance and Construction Fund. Under the current system, funds for highway maintenance and other non-construction items are funded first, and whatever is remaining is used for highway construction. As the costs associated with maintenance and non-construction items have escalated, and as the level of funding for highways in real dollars has decreased, revenue for highway construction has dropped off dramatically—so much so that by 1991 the non-construction items will consume all revenues from existing state sources. *Certainly the stable, predictable, long-term construction program so critical to smooth industry adjustment is lacking in such a situation. The question is thus, how can highway funds be allocated so as to guarantee that the Commonwealth's critical highway construction needs will be met?*

Following an extensive review of background information on current and projected levels of funding for construction and non-construction items, the Commission concluded that:

1. To ensure that the Commonwealth's past investments in transportation infrastructures shall be maintained, traditional sources of revenue should flow into the Highway Maintenance and Construction Fund and be allocated between construction and non-construction as in the past.
2. The costs of all capital construction for highways as well as for other modes of transportation should be borne by a new Transportation Trust Fund. This construction fund will be supported by the revenue sources outline in the preceding Chapter. As suggested earlier, 85% of all new revenue should be devoted toward meeting the Commonwealth's critical highway construction

needs with 15% being reserved for ports, airports, and mass transit.

Once decisions have been made on the levels of new revenue to be raised and on how such funds will be distributed between construction and non-construction, the next question is: How will those funds reserved for road and highway construction be allocated?

After a careful review of the State's critical highway needs, the Commission finds the construction allocation formula adopted by the 1985 General Assembly to be the best means of distributing funds to meet the road system needs throughout the Commonwealth. Further, that the formula should continue to be employed except in those instances where project-specific funding mechanism, such as tolls, are deemed to be more appropriate.

The construction allocation formula distributes funds in three steps:

1. Interstate matching funds are allocated first.
2. Unpaved roads, with over 50 vehicles/day receive 5.67% off the top before the remaining funds are distributed.
3. The remaining funds are divided among the Primary, Secondary, and Urban Systems as follows:
 - 40% to the Primary System (based on vehicle miles traveled -70%, land miles -25%, and need -5%);
 - 30% to the Secondary System (allocated to each County on the basis of population -80%, and area -20%); and
 - 30% to the Urban System (allocated to cities and towns on the basis of population).

The Management of Transportation Funds

A final funding question which must be addressed relates to the financial management of transportation revenues. How can revenues raised to support new transportation initiatives be utilized with the greatest efficiency and effectiveness?

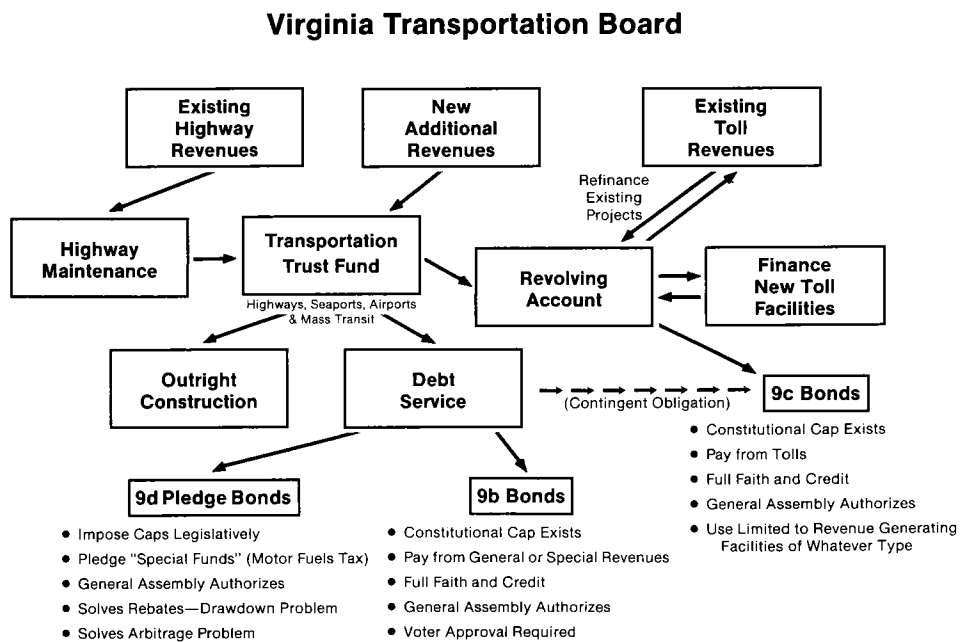
In order to maximize and coordinate the investment oversight, management, and distribution of new revenues for transportation needs, the Commission recommends that a new entity be established having the authority to finance the construction of all modes of transportation. This can be accomplished by expanding the authority

and membership of the existing Virginia Highway and Transportation Board, and by renaming it simply the "Virginia Transportation Board". To be consistent, the Commission further recommends that the Virginia Department of Highways and Transportation be renamed the "Virginia Department of Transportation."

The effect of this new Board will not be to alter the existing operating or financing capabilities of the Virginia Port Authority or the Virginia Aviation Board, but rather to offer an additional pass through financing tool to these entities.

Figure 3 indicates how the "Virginia Transportation Board" would function. As suggested by this illustration, under the direction of the Board, a new Transportation Trust Fund would be created. Money flowing into the fund would come from four basic sources, namely: 1) revenues left over in the current Highway Maintenance and Construction Fund after maintenance needs have been met; 2) new revenues generated for construction as a result of any legislation passed in the 1986 Special Session; 3) interest on Trust Fund balances and on any special funds or revolving accounts set up by the Board; and 4) toll revenues. This concentration of all construction revenues in one fund allows the maximum interest yield on investments, the ability to easily monitor fund size on a daily basis, and the flexibility to take quick advantage of investment opportunities.

Figure 3



The new construction fund could be used in a variety of ways:

- A proportion of total funds could be reserved for seaports, airports, and mass transit needs;
- Trust funds could be used to pay outright for highway construction improvements;
- A portion of the funds could be reconfigured as regional revolving fund to pay the up-front costs of designing and building toll facilities and revenue projects, with repayment to the fund due when the projects are self-supporting or from bond proceeds;
- Revolving account funds could also be used to refinance existing toll projects to get more favorable rates;
- If additional revenues are needed beyond what exists in the fund, trust funds could be used to service bonded indebtedness that the General Assembly authorizes for transportation purposes;
- Funds could be used to respond to federal funding initiatives that require state matching funds; and
- Funds could be used to pay for replacement of highways that are necessary because of accidents, severe weather conditions, acts of God, or vandalism.

Until a large number of construction projects are sufficiently complete so as to warrant full payments of construction costs, it will likely be possible to pay outright for projects from revenues in the Trust Fund. These funds would be appropriated by the General Assembly biennially to pay for projects in the approved plans for highways, seaports, airports, and mass transit. Alternatively, if revenue in the Trust Fund is insufficient, or if market conditions make refinancing an attractive alternative, then it may be desirable for the Commonwealth to issue debt. All debt would be subject to General Assembly approval in full accordance with provisions in Article X, Section 9, of the Virginia Constitution.

The consolidation of all existing and new revenues for transportation would offer many advantages to the Commonwealth. It would ensure that all modes of transportation receive their proper apportionment of funds, as set out in law. It would make maximum use of all funds available through a centralized investment program. Finally, it would enable the State to market any bonds authorized by the General Assembly at optimum times and to obtain the most favorable terms available.

The Commonwealth is facing a transportation challenge of unprecedented proportions. Present day highway construction needs alone are estimated to be in excess of \$10 billion, while the needs of ports, airports, and mass transit will be more than a billion dollars during the coming decade. To meet these needs will require the commitment of some \$6 to \$7 billion from state sources during the next ten years.

While the needs are great, so too is Virginia's ability to address them. The Commonwealth has a construction industry with additional capacity which can be brought to bear to meet our transportation needs. We are a wealthy state, which, without undue hardship to any of our citizens, can raise the revenues needed to confront our transportation challenge. Further, if the response to the Commission's public hearings is any indication, we have a populace that understands the scope of our needs, and one that is willing to support whatever action might be necessary to address them. But, important decisions must be made now if we are to avoid the impairment of our future mobility.

At the Commission's Public Hearing in northern Virginia, one speaker very articulately explained the situation the Commonwealth now finds itself in. He stated...

Virginia has carved in our area from its earth a new industry, a new culture, a new heritage. Our generation has inherited an opportunity and a responsibility to better what came before, enhance what we have now, and preserve some promise for the future.

He went on to suggest that:

If we fail to take decisive action our quality of life will slowly evaporate and our limited transportation improvements will be used by the moving vans of corporate America for departure to greener fields.

But if we make the hard decisions to push for progress we will find that our new roads will be the welcome mats for continued prosperity and quality of life.

The challenge is before us. It remains to be met.

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Document 6:

Report of the Subcommittee on Financial Options to the Commission on Transportation in the Twenty-First Century. July 28, 1986

Document 7:

Report of the Legal Advisory Committee to the Commission on Transportation in the Twenty-First Century. July 28, 1986

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