REPORT OF THE
SECRETARY OF TRANSPORTATION

ESTABLISHMENT OF AN INTERMODAL COORDINATING COUNCIL

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

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PREFACE

The Secretary of Transportation, Robert E. Martínez, was asked by the 1997 General Assembly through Section 496(e) of the 1997 Appropriations Act to study, in conjunction with the Commonwealth Transportation Board (CTB), whether to establish an Intermodal Coordinating Council as a possible adjunct to the CTB.

This report was prepared by the Office of Policy Analysis of the Virginia Department of Transportation (VDOT). As required by the Appropriations Act, the study included the examination of whether an Intermodal Coordinating Council would be useful in overseeing and coordinating policies related to intermodal transportation connections in the Commonwealth.

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EXECUTIVE SUMMARY

The 1997 General Assembly requested through Section 496(e) of the 1997 Appropriations Act that the Secretary of Transportation, in consultation with the Commonwealth Transportation Board (CTB), study whether to establish an Intermodal Coordinating Council as a possible adjunct to the CTB.

Historically, planning and decision-making activities for each mode were done separately, focusing only on individual modes of transportation. Today's transportation challenges dictate a different focus and approach. Virginia's transportation agencies have responded to the challenges of the 21st century. The Transportation Secretariat has shifted its focus toward system choices, understanding that Virginia must have an integrated vision for a transportation system that provides a coordinated, intermodal, comprehensive system that effectively considers all modes and the connections among them. Intermodal considerations are an intrinsic part of the planning process.

There is a critical distinction between multimodal and intermodal planning. "Multimodal" essentially means the existence of more than a single mode in a given corridor or region. Sometimes the term can be used to describe a policy decision-making process that adapts a generic, non-mode specific approach to defining and evaluating transportation problems and choosing a modal or *intermodal* proposed outcome or resolution. It attempts to provide an unbiased estimate of each mode's contribution, singly or in combination, to solve the problem. Intermodal planning, on the other hand, examines the policy and service interactions between and among modes, focusing on ensuring ease of movement for both people and/or freight when transferring from one mode to another. Intermodalism doesn't mean non-highway transportation. It focuses on the key connections among highways, transit, rail, aviation, ports and the other modes of transportation, working to develop seamless and interconnected transportation services.

Very significantly, these definitions are working definitions. There is no single, exclusive, authoritatively-accepted definition of intermodalism. A few years ago the Office of Intermodalism in the Office of the Secretary of Transportation (OST) at the U.S. Department of Transportation (USDOT) attempted through the regulatory process to work a definition acceptable to all the various modal administrations (agencies) of USDOT, and failed. The approach proposed by the Office of Intermodalism relied on "connections" among the modes, "competition" in the marketplace and "choice" to the travelling public in how they chose to travel and to shippers in the movement of freight.

Similarly, the Federal Highway Administration (FHWA) also attempted to incorporate its own somewhat different definition through the rulemaking processes that emanated from the federal rules on metropolitan planning and statewide planning, and the intermodal management system (all resulting from USDOT's interpretation of ISTEA requirements). FHWA also failed to achieve approval within USDOT for inclusion of these definitional references.

Context is also an important consideration. In the public sector, intermodalism is generally considered a relatively broad concept, oftentimes encompassing not just the issue of connections between/among the modes, but also merely the simple presence of more than one mode in a particular corridor or problem scope, regardless of how well they interact (or interact at all). In the private freight sector, an "intermodal" movement takes a very specific form, namely, the movement of a maritime container from a vessel to a chassis for over-the-road movement or onto an intermodal train. Or, it refers to a truck trailer put on a flatcar in a so-called piggy-back train configuration for long-haul movement.

Transportation planning is not a collection of documents that outline proposed projects, but a process of selecting the best solutions to a given transportation problem. As the examples outlined in the report show, intermodal considerations are an intrinsic component of the Transportation Secretariat's on-going planning and programming processes.

With the inclusion of the Virginia Port Authority in the Transportation Secretariat, now all the modes are represented under a common rubric. The Secretary conducts weekly meetings of the agency heads. They are informal and relatively unstructured, but have provided an essential but easy means to facilitate very sound intermodal oversight via a collegial arrangement among the agency heads themselves.

If the General Assembly is interested in producing a map that depicts the key intermodal connections in the Commonwealth, which could include planned projects, the Secretary of Transportation would be able to fulfill a request. If deemed useful, an intermodal map could be updated every two years, as is the current highway map.

The review undertaken to examine the efficacy of creating an Intermodal Coordinating Council as an adjunct to the CTB indicates that there is no need to create an additional level of bureaucracy – a separate intermodal council – to facilitate Virginia's commitment to a fully integrated intermodal transportation system. Intermodal planning is conducted on an on-going basis within the Commonwealth Transportation Board's existing committee structure, and through the Secretary of Transportation's coordination of all state transportation agencies' activities. Nonetheless, **the existing subcommittee structure of the Commonwealth Transportation Board could be reassessed. The existing Rail, Transit and HOV Committee could be specifically tasked as the advocate for intermodal projects, with the Access and Ground Transportation Committee providing additional support. If this is pursued, the Committee's name should be changed to reflect the change in emphasis.**

FEDERAL LAWS AND REGULATIONS RELATING TO INTERMODALISM

ISTEA

On December 18, 1991, the Congress passed the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), a landmark legislative act to foster improved efficiency of the nation's transportation system. The goal of ISTEA was the development and maintenance of a national, intermodal transportation system, economically efficient and environmentally sound, to help the nation compete in the global economy, and move people and goods in an energy-efficient manner. ISTEA required states to consider new methods to improve intermodal connectivity, but remained relatively flexible and sometimes vague in how this was to be accomplished. The theory of ISTEA differed from previous federal-aid surface transportation acts in its emphasis on systems rather than modal solutions. It was meant to provide states with tools to facilitate intermodalism and required, including through regulations, that states give expressed consideration to these issues on an on-going basis (via the planning regulations). Note that there has been some debate regarding the extent of regulatory specificity emanating from USDOT as a result of ISTEA and whether the level of explicit detail may have exceeded Congressional intent. There are views on both sides of this issue.

To achieve its purpose of promoting intermodal transportation, ISTEA created the Office of Intermodalism, under the U.S. Secretary of Transportation. This Office provides states and MPOs with information on the movement of people and goods across the nation's intermodal transportation system. The current Virginia Secretary of Transportation, Robert Martínez, established the Office, mandated under Title V of ISTEA, and served as its first director.

When the phrases "multimodal" and "intermodal" planning gained a central spot in the transportation lexicon following the passage of ISTEA, there was much confusion as to their respective meanings. It took a number of years before transportation professionals even could define them. There is a critical distinction between multimodal and intermodal planning. Multimodal planning focuses on system choices and adapts a generic, non-mode specific approach to defining and evaluating transportation problems. It then attempts to provide an unbiased estimate of each mode's contribution, singly or in combination, to solve the problem. Intermodal planning, on the other hand, examines the policy and service interactions between and among modes, focusing on ensuring ease of movement for both people and goods when transferring from one mode to another. Intermodalism doesn't mean non-highway transportation. Instead, it is focuses on the key connections among highways and other modes of transportation, working to develop seamless and interconnected transportation services.

ISTEA's Program Structure

Among the tools ISTEA provided states was some increased flexibility in the use of the federal monies it receives. In the past, limitations existed on the modal use of federal highway and transit funds. Highway funds had been available solely for road projects, and transit funds only for transit projects. Under ISTEA, funds can be "flexed." Typically this has been a

euphemism for transferring so-called highway funding to transit purposes. In fact, comparative analyses would indicate that Virginia has ranked among those states that have ranked higher in the use of the flexing instrument, which has been utilized by the Commonwealth Transportation Board to support *inter alia* a five-year commitment to Virginia Railway Express and improvements to transit rail along the I-95 corridor (done over four years).

Note, significantly, that use of the flexing instrument does not, necessarily, constitute in and of itself an intermodal investment. In Virginia, through the Commonwealth Transportation Board, it has been, rather, the strengthening of non-highway options in certain corridors.

In this context, it is important that intermodalism not be confused with non-highway solutions to transportation problems. Many intermodal problems are, in fact, truly completing critical highway connections that may appear relatively modest or minor, but might service a key or promising truck distribution facility, intermodal railyard or small airport.

In the freight arena, the Commonwealth Transportation Board has also been at the forefront of moving forward a significant intermodal project, namely the grade separations on Hampton Blvd. to support Norfolk International Terminals. Significantly, the Port of Virginia is, in fact, the largest "intermodal" port on the U.S. east coast, if one uses the strict freight definition of intermodalism used in the port business. This captures solely the movement of maritime containers from an ocean-going vessel to a rail for its origin or destination movement.

VPA is also the fastest-growing intermodal port on the east coast, both in terms of absolute volume and market share.

Providing for efficient movement in and out of the port for both truck and rail movements is indispensable in ensuring the Port's long-term competitiveness. Vessel sizes continue to grow. Already, the major container steamship lines have introduced 6000 TEU* ships in the Pacific trades. It is only a matter of time before this class of vessel is introduced on the Atlantic. Planning is even beginning for eventual 8000 TEU vessels.

As vessels increase in size and various steamship operators join forces and rationalize service, there will be a consolidation of port activity into fewer ports, namely ports with deep harbors, solid modern equipment and terminal availability, and adequate landside access. From the landside perspective, the more pronounced peaks and valleys in the movement of freight (off of larger vessels carrying more freight at one time) will stress infrastructure requirements at terminal entrances/exits. The CTB has recognized this reality and has already fully funded grade separation work at the back entrance to NIT and funded preliminary engineering work for a similar separation at the main gate. Statewide ISTEA funds have been applied by the CTB to this effort.

*TEU: Twenty-foot equivalent unit; which is a twenty-foot container, the traditional standard of measurement in the freight intermodal industry.

In the "spirit" of ISTEA intermodalism, Virginia's Industrial, Airport and Rail Access programs have been significantly strengthened under the Allen Administration. These three programs now compete within a single pot of funding, allowing more rail or airport projects, for example, to be expedited in a given year when they would represent a greater return for the investment than a given highway industrial grant (which may compete better the following year).

Thanks to support by the General Assembly, the barriers that previously existed between the three categories of funding were eliminated. In practice, this has meant that the CTB has been able to fund more competitive rail access and airport access projects than it otherwise would have been in a position to do.

Note that ISTEA's flexibility features have had significant shortcomings. For example, ISTEA does not allow for the use of funds to support inter-city passenger rail. This is a shortcoming, and one on which Virginia is on record in seeking increased flexibility in the reauthorization of ISTEA. Therefore, in its support of upgrades to the rail lines along the I-95 corridor, the CTB funded $13 million in improvements over four years all located within the stretch of rail line utilized by VRE. VRE is considered an eligible beneficiary under ISTEA given its status as "commuter rail." Pure inter-city passenger rail is not eligible. The CTB's action, nonetheless, will improve AMTRAK service by reducing the current two-hour travel time between Richmond and Washington by over twenty minutes (thanks to upgrades north of Fredericksburg).

Technically, ISTEA funds for freight rail purposes, such as a grade separation, are only eligible to the extent that the subject roadway also receives a necessary improvement. The expenditure of ISTEA funds purely for improvement of the rail movement, without a roadway nexus, is an ineligible use.

These are limitations which should be corrected in reauthorization.

It is true that ISTEA does provide some increased flexibility not only between highways and transit, but also across categories, such as National Highway System versus Surface Transportation Program, etc.

The following material outlines the key intermodal provisions of each of the major ISTEA programs:

National Highway System

ISTEA established the National Highway System (NHS) which consists of 155,000 miles of major roadways within the United States. The NHS is a compilation of the Interstate System, urban and rural principal arterials and highways that provide access to other ports and airports, and roadways designated under the Strategic Highway Network for defense purposes. The NHS provides an interconnected system of principal arterial routes serving major population centers, international border crossings, ports, airports, etc. Although the NHS itself is comprised solely

of highways, the National Highway System Designation Act of 1995 required that states submit a map depicting proposed modifications to the NHS to ensure that connectors to major ports, airports, international border crossings, public transportation and transit facilities, interstate bus terminals and rail and other intermodal transportation facilities are part of this critical system. The addition of these additional connectors to the NHS exemplifies the shift toward more full consideration of system integration. A map of Virginia's National Highway System intermodal connectors is attached in Appendix C.

Surface Transportation Program

ISTEA also established a surface transportation program (STP) to support the nation's basic transportation systems. STP provides flexible funding opportunities for capital costs to transit projects that are eligible for assistance under the Federal Transit Act, as well as to publicly owned intracity and intercity bus terminals and facilities. Car pooling, fringe and corridor parking facilities and pedestrian and bicycle facilities are other examples of the types of projects funded under STP. Intercity passenger rail expenditures are not eligible; nor are rail track projects without a roadway nexus. Nonetheless, STP funds are arguably the most flexible component of ISTEA funding. Over the life of ISTEA the CTB and the MPOs have transferred over $38 million of STP funds to non-highway modes. By region, 8% of Richmond's STP funds were used for non-highway modes, 21% of Northern Virginia's Regional STP funds were used for transit, ridesharing and commuter rail projects, and 17% of the Hampton Roads area's Regional STP funds were dedicated to non-highway uses. In addition, as mentioned, the CTB has "flexed" funding over a five-year period to VRE and over a four-year period to upgrade rail in the I-95 corridor.

CMAQ Program

The Congestion Mitigation and Air Quality Program (CMAQ) is another program established under ISTEA that supports non-highway projects. CMAQ provides states with funds for programs designed to improve air quality in non-attainment areas. CMAQ funds are used for projects that initiate or expand transportation services with air quality benefits. Activities eligible for funding under this program include transit improvements (including commuter rail), ride-share services, traffic flow improvements (includes upgrading signal timings), transportation demand management strategies and, pedestrian and bicycle facilities. Over the life of ISTEA, the CTB and the MPOs have used $52.5 million for non-highway modes. On a regional basis, this means that 35% of the CMAQ funds allocated to Hampton Roads, 63% of the CMAQ funds allocated to Northern Virginia, and 29% of the CMAQ funds allocated to the Richmond MPO were used to support mass transit.

Nationally, there has been some criticism that the CMAQ program as managed by USDOT has fully-developed its air quality element, but has failed adequately to address the congestion mitigation intent. Clearly this will be a discussion item during ISTEA reauthorization.

Planning Regulations

ISTEA included many new regulations. Among the most notable are the regulations for Statewide Planning and Metropolitan Planning (Chapter 1, 23 CRF part 450). In November 1993, the Federal Highway Administration (FHWA), in conjunction with the Federal Transit Administration (FTA), issued the Final Rules for Statewide Planning and Metropolitan Planning. These new regulations govern the development of statewide transportation plans and programs, as well as those of the Metropolitan Planning Organizations (MPOs), ensuring that the statewide and metropolitan plans meet the requirements for federal funding. The decisionmaking process has changed; states must now explicitly consider 23 factors and MPOs must consider 15 factors when developing their transportation plans. Both states and MPOs must develop a multimodal transportation improvement program that has been reviewed and commented on by the public. The projects contained within the first three years of each improvement programs must be financially constrained. In other words, each project must have its funding source identified and there must be ample funds to proceed with each of the projects identified. *Significantly, the regulations fail to define intermodalism.*

The statewide planning regulations require each state to carry out a continuing, comprehensive and intermodal statewide transportation planning process. This includes the development of a statewide long-range transportation plan and a Statewide Transportation Improvement Program (STIP) that facilitates the efficient and economic movement of people and goods in all areas of the state. The statewide plan needs to consider a wide range of transportation needs for both passengers and freight and for all modes of transportation, including the connections among them.

In developing the statewide transportation plan, the state must coordinate with other planning organizations for public involvement and data collection and analysis. The public involvement process must be proactive, early and continuous. The state must provide sufficient time and information for public comment. These regulations require the statewide transportation plan to address all areas of the state for a period of not less than 20 years. The plan must be intermodal and also contain methodologies for connecting bicycle transportation and pedestrian walkways with other modes. As mentioned above, the regulations require states explicitly to consider 23 factors when developing their transportation plan. The plan must be coordinated with MPOs. A copy of Virginia's Statewide Intermodal Long-Range Policy Plan is attached in Appendix B.

The planning regulations developed to implement ISTEA also included a requirement that a Major Investment Study (MIS) be conducted before a state or MPO undertakes a significant transportation improvement. This study develops the information needed to answer broad questions for the corridor or transportation issue in question, including the appropriate level and nature of investment in major new transportation facilities. At its conclusion, these studies include recommendations on a preferred set of improvements and policies to respond to emerging needs in the corridor. *By their very nature, MISs are intermodal and multimodal in perspective.* Federal regulation requires that these studies examine all possible single- and multi-modal solutions to transportation problems in the area being examined. A number of examples of MISs undertaken in Virginia since the passage of ISTEA are included later in this report.

Note that Virginia has been exceptionally attentive to the use of the MIS as a planning vehicle. In many states there has been some resistance to the MIS, particularly as it pertains to reviewing all the modal options. This is partly driven by the planning costs incurred.

SECRETARY OF TRANSPORTATION

In addition to expanding intermodal and multimodal transportation planning activities in order to comply with federal law, Virginia has initiated a number of improvements related to state inter- and intra-agency cooperation and coordination.

The Secretary of Transportation has responsibility for all major modes of transportation in Virginia – highways, public transit, rail, motor carrier, aviation and ports. In 1995, oversight of the Virginia Ports Authority shifted from the Secretary of Commerce and Trade to the Secretary of Transportation, thus ensuring that all modes of transportation are considered as a single, interconnected system for the movement of people and freight. To facilitate these efforts, the Secretary of Transportation holds joint weekly meetings with all agency heads in his Secretariat, providing a forum to discuss transportation needs from a multimodal perspective. These meetings allow the Secretary to hear debate on all the topics affecting more than a single mode before decisions are made. Significantly, the informal nature of the weekly agency head meetings have led to a strengthening of the collegiality among the five agencies represented.

As reflected in the recent JLARC report, "The Secretarial System in Virginia State Government," the Secretary has argued that the weekly meetings make sense precisely because of the nature of the transportation business. Today's transportation systems will only be efficient and cost effective to the extent that they achieve strong intermodal outcomes. Virginia's agency system has been critical in the development of strong non-highway programs. This is to say, that transit, ports and aviation—the "smaller" modes—would likely not have the success and prominence in the Commonwealth were they not separate entities from a state DOT (which differs from the structure in several other states). Under the Secretary's approach, intermodal oversight is provided by the weekly meeting structure itself, by the agency heads themselves, with the participation of the Secretary and Deputy Secretary. Note that the Secretary does not allow substitutions at the meetings, but that they are informal. If ever more than one individual cannot manage the meeting in his/her calendar, that week's meeting is rescheduled or cancelled. This occurs infrequently, but periodically. This approach works well precisely because it is informal and, to a certain extent, unstructured.

One of Secretary Martinez' first major initiatives after taking office was the development of a strategic plan for Virginia's transportation system. A series a forums was held to engage the public and private sector transportation stakeholders in a dialogue to help articulate how a vision for Virginia's transportation system could be put into action. The six-month process included a half dozen public meetings held around the Commonwealth and was managed by the Deputy Secretary. It culminated with the release of a final strategic plan, *Virginia Connections*, which was released by Governor George Allen in December 1994. *The report in spirit, in intent and as effectuated, is pure intermodalism through and through.* Additionally, virtually every element suggested or recommended in the document has already been accomplished.

Significantly, although the Virginia Port Authority was not a component of the Transportation Secretariat at the time of the development of *Virginia Connections*, the agency participated fully in the report's development, as indicated on the back cover of the document.

The report set forth seven principles to guide the Transportation Secretariat: Intermodalism, Deregulation, Economic Development, Markets, Privatization, Freight, and Technological Leadership and Safety. The fact that "Intermodalism" figures as the first principle enunciated in the document was not coincidental.

The mission statement of *Virginia Connections* begins, "Virginia will have a safe, efficient, intermodal transportation system with seamless connections among all modes. The Commonwealth will develop a balanced, environmentally sound transportation system that provides mobility, responds to the market and fosters economic prosperity with a range of viable modal choices. Transportation policies and planning will emphasize the movement of people and goods from origin to final destination rather than mode-specific travel."

The *Virginia Connections* strategic plan included two overarching goals designed to enhance intermodalism: the identification of opportunities to enhance strategic intermodal connections; and the development and improvement of state-level intermodal planning and encouragement of intermodal planning efforts of regional agencies.

The goals outlined in the strategic plan have guided the efforts of the Transportation Secretariat throughout the last four years. A number of key projects have been initiated to address strategic intermodal bottlenecks; for example, VDOT's Six-Year Program includes a project to improve two at-grade crossings at the Virginia Port Authority's Norfolk International Terminals. This project improves both passenger and freight mobility, and impacts the rail, highway and seaport modes. The Secretary also has supported efforts to disseminate guidance on intermodal planning to Virginia's MPOs. VDOT and DRPT initiated a joint effort in conjunction with FHWA and FTA to develop guidelines on how effectively to undertake MISs. These guidelines have been distributed to all the MPOs in Virginia to help them address the intermodal transportation needs of their regions. Separate legislation removed the barriers between Industrial Access, Rail Industrial Access and Airport Access funding; done so as to facilitate improved intermodal outcomes and enhance the return on limited resources.

COMMONWEALTH TRANSPORTATION BOARD STRUCTURE AND DUTIES

Background

In 1906, the General Assembly created the Virginia Highway Commission. The Board's name was changed from the Virginia Highway Commission to the Virginia Highway and Transportation Commission in 1974, to the Virginia Highway and Transportation Board in 1985, and again changed in 1987 to the Commonwealth Transportation Board (CTB), to keep up with changing times and responsibilities. Today, the Board has direct responsibility for both highways and transit.

The Board is composed of 16 members; one from each of VDOT's nine transportation districts (Bristol, Culpeper, Fredericksburg, Lynchburg, Northern Virginia, Richmond. Salem. Staunton and Suffolk) and five members at-large, who represent urban and rural perspectives. The Secretary of Transportation chairs the Board. The VDOT Commissioner sits as Vice Chairman and chairs the meetings in the absence of the Secretary. The CTB Chairman votes only in instances of a tie vote. The Vice Chairman votes only if the Chairman is absent and there is a tie vote.

Along with the duties that relate primarily to the highway mode, the Code of Virginia (§33.1-12) specifically requires the CTB to ensure the further development of public transportation and coordinate planning for financing of transportation needs.

Committee Structure

The CTB carries out its duties through six committees:

Environment and Human Resources	Federal Legislation
Finance and Budget	Access Roads and Ground Transportation
Internal Audit	Rail, Transit and HOV

The Rail, Transit, and HOV committee was established in 1982. This committee focuses its activities on the efficient movement of freight and passengers. Their duties include oversight, of Virginia's public transportation program, including federal grants and policy issues: authorizing projects for funding under the rail industrial access and preservation programs. including the establishment of program policies and review of grant applications. This committee provides information on modal interrelationships and serves as the locus of information on activities related to alternative means of moving people other than single-occupancy vehicles.

The Access Roads and Ground Transportation committee also addresses intermodal issues – they are responsible for the selection of projects to be funded through the combined rail, industrial and airport access programs. In the past, the CTB maintained separate funds for highway, rail, and airport access. This past year, authority was given in the Code to combine these programs. This change was requested in the spirit of intermodalism; it makes no sense to predetermine what percentage of industry access needs will be rail, airport or highway. That decision is best left to the market. With the newly combined program, the CTB is able to assist economic development in the Commonwealth on a mode-neutral basis. This is just one example of the small changes undertaken to enhance consideration of intermodal connections in the statewide transportation planning process. The practical effect has been to support more rail industrial access and airport access projects than would have been the case in the absence of this statutory change.

Duties

The first responsibility of the Board listed in the Code of Virginia (§33.1-12) is the location of routes and corridors for proposed transportation investments. As part of that multi-

step assessment process, the CTB reviews and makes project recommendations based on the results of Major Investment Studies undertaken in the Commonwealth. With the advent of this planning tool, there has been a change in focus to address transportation needs from a systemic perspective, which by its very nature is multi- and inter-modal. Although each element of our transportation system is part of a larger, interconnected whole, the decisions are made on a project-by-project basis. One cannot work entirely from the big picture down to its individual elements; instead, properly applied intermodal planning is conducted from the bottom up – assessing individual bottlenecks separately, while retaining a sense of how each problem area interfaces with the larger system.

The Commonwealth Transportation Board coordinates intermodal transportation decisions in Virginia through its Code defined approval and review activities. The CTB's existing committee structure facilitates rail, highway and airport access needs, authorizes projects to streamline port, rail and roadway connections, and regularly balances the Commonwealth's transit and highway needs through its project selection and allocation process. The Access Roads and Ground Transportation Committee, and the Rail, Transit and HOV Committee have been tasked by the Secretary to provide a focal point for intermodalism within the Commonwealth Transportation Board. Working in conjunction with the Secretary of Transportation (Chairman of the CTB), who has authority over all five of Virginia's statewide modal transportation agencies, intermodalism is addressed effectively on an on-going basis. Detailed below are some recent studies that are illustrative of how intermodalism is addressed.

EXAMPLES OF INTERMODAL STUDIES

Specific corridors with intermodal transportation problems require individualized study. Instead of being considered solely as a component of a larger statewide, long-range plan, major areas of transportation need require intensive analysis of the area-specific problems. Problem-specific studies have the advantage of allowing for substantial public involvement, and in-depth analysis of the demographic, economic and travel characteristics driving the need. Listed below are summaries of a number of Virginia's major transportation problems, and how the Secretary of Transportation and Virginia's transportation agencies have sought to address them.

Dulles Corridor Transportation Study

In September 1990, the CTB passed a resolution calling for a cooperative effort among state and local government to develop a plan for transportation improvements in the Dulles Corridor. The resulting Plan identified a number of actions to be taken, including:

- Implementation of express bus service;
- Construction of park and ride lots, toll road interchanges and direct HOV-ramp access to these lots;
- Further analysis of the long-term need to make major improvements in interchanges in the corridor;
- Preparation of a detailed financial plan to determine funding needs and funding sources for a rail project; and

- The use of federally authorized funds to begin development of a rail project, including alternatives analysis and environmental studies.

In 1994, the Virginia Department of Rail and Public Transportation (DRPT) initiated the Dulles Corridor Transportation Study (DCTS) as a direct response to the earlier recommendation that an alternatives analysis should be initiated to assess the feasibility of implementing rail service in the corridor.

The Dulles Corridor Transportation Study examined the growth projections for the corridor and the region, projected the travel patterns that will be generated by development in the corridor, considered a variety of transportation improvements to address these travel needs, and estimated the costs, benefits, and other impacts of these alternatives. At the end of the Study, a recommendation was made on the preferred set of improvements and policies to respond to emerging needs in the corridor. The Study included all of the technical work and public participation activities necessary to identify reasonable alternatives and estimate their costs, benefits, and other impacts. The study is limited to the decision at hand – the recommendation of improvements for the corridor. It was a conceptual plan and did not develop information about decisions that will be made later, such as the number of bus shelters needed at a particular park/ride lot, for example.

The DCTS was completed in June 1996. The recommendations of the DCTS Policy Committee were presented to the CTB, and the items listed below were approved by the Commonwealth Transportation Board in August 1996:

- Construction of Alternative 3, a Metro-like seamless system to connect from the West Falls Church Orange-line Metro stop to Route 722 in Loudoun County;
- Expeditious pursuit of a funding strategy for capital and operating costs in order that this project may be added to the region's Constrained Long-Range Plan as soon as possible; and
- Examination of enhanced express bus service in the corridor to build mass transportation ridership and to more fully utilize the transportation assets of the corridor, as a high priority.

As the recommendations derived from this study indicate, the DRPT was able to commission a study that looked at a broad issue – transportation needs in the Dulles Corridor – and provide an unbiased, non-mode-specific analysis of how these needs could be addressed. This provided the CTB with the necessary information to recommend certain multimodal and intermodal strategies to address this specific need.

Simultaneously with the Study process, VDOT has been constructing an additional fourth lane in each direction on the Dulles Toll Road, as proposed by Governor Allen and supported by the General Assembly in 1995. The lanes are intended to be HOV-2. To accommodate future intermodal objectives, VDOT already provided for "bubble" spacing at two different sites—done within the context of the road project—to allow for the placement of future transit stations without requiring breaking the highway anew.

It is now critical that the Dulles rail extension be authorized for action by the Federal Transit Administration (FTA) in ISTEA reauthorization.

I-66 MIS

The General Assembly requested studies of the potential for rail transit in the I-66 Corridor in both 1993 (HJR 616) and again in 1994 (SJR 355). In addition, the National Capital Region's Long-Range Plans and the Northern Virginia 2010 Sub-Regional Long-Range Plan had identified the need for rail, HOV or additional buses in the area of I-66 outside the Beltway. Proposals had included expanding the Metro Orange-line beyond Vienna, extension of the VRE to Haymarket, and proving feeder bus service to the rail stations.

DRPT and VDOT sponsored the I-66 Corridor Major Investment Study to work with local jurisdictions, regional agencies, and the public to identify the most appropriate transportation investment strategy to address east-west travel needs in the I-66 Corridor between the Capital Beltway in Fairfax County on the east and U.S. Route 15 in Prince William County on the west.

A proactive public involvement program is a critical component of the MIS. The goal is to provide information to the public and notice of meetings/workshops in a timely manner, access to key decisions, and opportunities for early and continued involvement throughout the study. The comprehensive involvement program includes newsletters, a telephone hotline, a web site, interviews with community and business groups, public workshops, and widespread distribution of meeting notices.

A study team has been developed to evaluate the alternatives, and includes representatives of VDOT and DRPT, interested citizens, local government representatives from all impacted jurisdictions, regional transportation authorities and Federal agency representatives. These individuals have been charged with developing a regional consensus on a comprehensive transportation investment strategy appropriate to address transportation issues in the corridor over the next 20 to 25 years which:

- Responds to current imbalances between existing transportation supply and demand;
- Supports anticipated growth and development in the corridor;
- Integrates the multimodal transportation systems in the corridor; and
- Supports previous and on-going regional and local transportation planning processes.

The preferred transportation investment strategy will be identified based on an evaluation of alternative transportation strategies through a three-step screening process. This screening process will identify those elements and strategies that best meet the transportation needs of the corridor. At the conclusion of each screen, the most promising elements will be refined, modified and reformulated to improve the extent to which the alternative addresses corridor needs. The Screen 2 Multimodal Investment Strategies were discussed at meetings of the I-66 Corridor MIS Technical Advisory Committee in November and December of 1996, and in February and May of 1997. The I-66 Corridor MIS Policy Advisory Committee reviewed the strategies at their March and August 1997 meetings.

I-64 MIS

The I-64 Major Investment Study was initiated in June 1996 and is anticipated to be finished sometime early in 1998. An overview of the full 75-mile corridor between Richmond

and Newport News focused on providing alternatives to the use of single-occupant vehicles and sustaining economic growth through access improvements to the existing transportation system.

The product of this overview was a collection of 10 improvement alternatives and an evaluative framework to measure and compare performance. These ten alternatives include a baseline alternative (future conditions with only currently planned improvements, often called the "no build" alternative) and a Transportation System Management (TSM) alternative (largely operational improvements without major capital investment) in addition to major investment alternatives. The alternatives are multimodal and, therefore, consist of packages of transportation improvements that emphasize different modes and travel markets. These improvements include intelligent transportation systems (ITS); high-speed, intercity passenger rail service; general purpose travel lanes; and HOV lanes.

Each alternative currently contains interchange improvements and other design characteristics, such as additional rail stations, an express bus, and shuttle services, needed to maximize their performance. The final set of six alternatives put forward for additional consideration this past Summer includes the baseline alternative, the TSM alternative, and four build alternatives. In-depth analyses of these alternatives are being conducted and will result in a locally preferred alternative being selected in the spring of 1998. At this stage, all of the alternatives contain interchange improvements and other design characteristics, such as added rail stations, express bus and shuttle services, needed to maximize their performance with respect to the goals and objectives outlined in the study's purpose and need statement.

Since strengthening intermodal linkages and enhancing access to the transportation system were identified as important objectives of the study, the MIS will look to improve access to both the Newport News-Williamsburg Airport and the Richmond Airport along the I-64 corridor and CSX facilities. Included among the alternatives being considered are a new interchange at Bland Boulevard to provide more direct access for motorists between I-64 and the Newport News-Williamsburg Airport, a new passenger rail station to accommodate high speed passenger service in the CSX right-of-way near the airport, and improved bus service to better serve the airport. Similarly, the MIS is evaluating the need for new passenger rail service in the CSX right-of-way near the Richmond airport.

Third Crossing MIS

Congestion at the Hampton Roads Bridge Tunnel has been a concern for several years. A VDOT study conducted in response to Virginia General Assembly Joint Resolution 132, concluded that short-term measures would not solve congestion at the Hampton Roads Bridge Tunnel and that a long-term large-scale solution would be required. The study of a long-term solution to the transportation need, the Hampton Roads Crossing MIS, began as a demonstration project funded by ISTEA and was initiated in late 1993.

A coordinating committee was formed by VDOT and included representatives of FHWA, FTA, DRPT, the Hampton Roads MPO, local public officials; and regulatory and environmental agency representatives. It also included representatives from transit agencies, rail providers, the VPA and military bases in the region. The Committee was responsible for reviewing the study's

progress and making recommendations concerning project direction, study techniques and public participation.

The Hampton Roads Crossing MIS investigated methods of relieving congestion at the existing I-64 Hampton Roads Bridge Tunnel and addressed major transportation deficiencies in the region. The MIS examined financial requirements for, and the effectiveness of, various solutions to address the transportation problem and evaluated potential environmental effects so that a preferred transportation corridor or corridors could selected.

The MIS process initially identified 45 potential mobility solutions. These alternatives were winnowed down to 11 after they were assessed against needs-based criteria. Among the criteria utilized to evaluate the alternatives was whether the solution would provide a direct connection to the major ports or serve as a major freight corridor. Although this effort was initiated in response to a perceived highway need, the study looked at the intermodal needs in the area, understanding that you cannot look to solve transportation problems from a single-mode perspective.

The Hampton Roads MPO, at its meeting on July 16, 1997, endorsed Alternative 9 as the locally preferred alternative. By resolution dated July 22, 1997, the Virginia Port Authority also endorsed the adoption of Corridor 9 as the preferred alternative for the third crossing of Hampton Roads. The Commonwealth Transportation Board passed a resolution at its September 18, 1997 meeting expressing its good faith intent to facilitate and develop the Hampton Roads Transportation Crossing identified as Transportation Corridor 9, which consists of a facility that includes a Bridge/Tunnel from I-564 in Norfolk to I-664 in Newport News with a connection from this facility to the Western Freeway (Route 164) in Portsmouth.

Corridor 9 provides a new interchange located south of the existing I-664 Monitor Merrimac Memorial Tunnel and a new crossing from I-664 to Norfolk. It also provides a new connection across the proposed port facility at Craney Island to Route 164 in Portsmouth. significantly connecting the proposed fourth marine terminal directly to Norfolk International Terminal. It also provides a new transportation facility along the CSXT railroad corridor from downtown Newport News to I-64 near Bland Boulevard. The alignment would be designed to accommodate SOV, HOV, trucks and transit and would be designed with a three-tube tunnel crossing. Two of the tubes would carry two travel lanes each for conventional traffic. The third tube would be used for multimodal purposes. These uses could include reversible HOV lanes, an exclusive busway, exclusive truck lanes, and/or a commuter rail system.

Grade-Crossing Improvements at VPA

One final example of how the Secretariat has addressed intermodal concerns in the Commonwealth can be seen from the feasibility study for highway/railroad grade separation in the Hampton Boulevard corridor, surrounding the Norfolk International Terminals of the Virginia Port Authority (VPA). Providing efficient and improved intermodal access is key to the success of the VPA's largest facility, NIT.

In 1996, a feasibility study was conducted to investigate alternatives to improve Hampton Boulevard at the railroad crossings into Norfolk International Terminals at Greenbrier Avenue and International Terminal Boulevard. The objective was to provide a grade separation between the vehicular traffic on Hampton Boulevard and the train traffic into and out of NIT. This project was undertaken as a way to address the conflicting transportation needs of increased vehicular traffic in the vicinity, and NIT's interest in expanding activities at the Port. The construction of grade separations would enhance the operational efficiency and safety along the Hampton Boulevard corridor, and the operations and throughput of the Port would be improved by allowing for longer train length, more frequent trains, and greater switching flexibility.

Traffic analysis indicates that there are approximately 40,500 vehicles per day on Hampton Boulevard, and that number is anticipated to increase to 51,000 vehicles per day by the 2015. At the same time, the average train length is expected to increase from 3,000 to 6,000 feet by the year 2015, and the number of trains going into and out of the terminal is expected to double as well.

After that study was completed, and alternatives were proposed, the City of Norfolk passed a resolution requesting that VDOT undertake a project to improve Hampton Boulevard utilizing an underpass. In March of 1997, a Citizens Information Meeting was held to present various alternatives to the public. As a result of comments received at that meeting, additional alternatives were investigated. A citizens advisory committee also was established to ensure full involvement of the affected communities, and included members representing local residents and business owners, as well as representatives of VDOT, the City of Norfolk, the Virginia Port Authority, and the U.S. Navy.

On November 24, 1997, a combined location and design public hearing was held on the first of the two projects to be constructed – the grade separation at the "back-gate" of NIT. The design of the Hampton Boulevard underpass near Greenbrier Avenue will include three lanes plus a bicycle lane in each direction. Concrete sidewalks will be constructed, and the opposing lanes will be separated by a raised median. This solution was devised to solve a problem that impacted multiple transportation modes and ensure the continued efficient workings of the seaport, rail and roadway transportation in the vicinity. At this time, it is anticipated that the City of Norfolk will pass a resolution in support of the proposed improvement in December, and the CTB may vote on the decision at its December 1997 meeting. If the project is approved, right-of-way acquisition will begin in early 1998, and the project will be advertised for construction in mid-1999.

RECOMMENDATION

The review undertaken to examine the intermodal planning processes of the state's transportation agencies indicates that there is no need to create a separate intermodal coordinating council to facilitate Virginia's commitment to a fully integrated intermodal transportation system. Intermodalism should not be a provision of law. It is indispensable that any individual who serves as Secretary of Transportation be committed to intermodal approaches and intermodal outcomes. This should be explicitly addressed in discussions with potential

Secretaries. But, to produce market-driven, effective outcomes, it will be preferable to allow the Secretary to manage the intermodal oversight without specific statutory change. It is key that individual agency heads also be personally committed to intermodalism given that intermodal outcomes require "buy-in" from the separate modes, and require giving in on certain details to produce better overall intermodal outcomes. This extends to all the modal agencies.

At this time there appears to be little need to establish a separate Intermodal Coordinating Council as an adjunct to the CTB and there are concerns that it would result in duplication of effort. The structure of the CTB serves to address many of the intermodal transportation connection needs of the Commonwealth. By segmenting so-called "intermodal decisions" from the central transportation planning process these needs could receive less, not more consideration. Because of the critical importance of selecting the appropriate mode to address each transportation need, it is imperative that intermodal planning remain an on-going component of the Commonwealth's transportation planning process.

It could be appropriate to recommend that the Secretary specifically task a single CTB Committee to assume oversight over intermodal projects. The most appropriate CTB Committee is the Rail, Transit and HOV Committee. This Committee should be required to provide recommendations that explicitly pursue intermodal outcomes to the full CTB. It would be appropriate that this existing Committee also be required to confer on all such projects with the Access and Ground Transportation Committee. Additionally, the Rail Transit and HOV Committee title should be changed to reflect its explicit intermodal duty.

Separately, as a resource document, the Secretary could be requested to provide an intermodal map of the Commonwealth. If deemed useful, it could then be updated periodically, perhaps every two years, as is currently done for the VDOT highway map.

APPENDIX A

Chapter 924
Section 496(e)
1997 Appropriations Act

The Secretary of Transportation, in consultation with the Commonwealth Transportation Board, shall study whether to establish an Intermodal Coordinating Council, as a possible adjunct to the Commonwealth Transportation Board. The study shall examine whether such a council would be useful in overseeing and coordinating policies related to intermodal transportation connections in the Commonwealth. The Secretary shall report his findings and recommendations to the General Assembly no later than December 1, 1997.

APPENDIX B

STATEWIDE LONG-RANGE INTERMODAL PLAN

VIRGINIA

STATEWIDE INTERMODAL LONG-RANGE TRANSPORTATION POLICY PLAN

PREPARED BY

VIRGINIA DEPARTMENT OF AVIATION

VIRGINIA DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION

VIRGINIA DEPARTMENT OF TRANSPORTATION

VIRGINIA PORT AUTHORITY

June 1995

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STATEWIDE INTERMODAL LONG - RANGE TRANSPORTATION POLICY PLAN

1.0 INTRODUCTION

The Commonwealth of Virginia is committed to comprehensive planning for all transportation modes. The development of transportation plans and funding programs is an integral component of the functions of many state, regional, and local agencies. At the state level, the primary agencies involved include the Virginia Department of Transportation (VDOT), the Virginia Department of Rail and Public Transportation (DRPT), The Virginia Department of Aviation (DOAV), and the Virginia Port Authority (VPA). The Virginia Department of Motor Vehicles (DMV) plays a significant role in the area of safety information management and provision of technologically advanced customer service. At the regional level, there are the Metropolitan Planning Organizations, the Transportation District Commissions, and the Planning District Commissions. At the local level, the local planning commissions of the counties and municipalities, as well as the local governing bodies, play an important role.

Virginia places considerable emphasis on insuring that proper interface exists among all modes of transportation and that long range plans include consideration of all modes. The Statewide Intermodal Long-Range Transportation Policy Plan supports the planning efforts, policy making activities, and programming of projects for the various agencies and organizations involved in transportation planning.

The intermodal transportation plan is especially beneficial in Virginia because the Commonwealth is a coastal state with a major international port, has broad areas that are densely populated and serves as a primary corridor for north-south and east-west freight and passenger transport. In addition, Virginia's transportation network serves the strategic interests of the nation's capital and serves the large number of military facilities located in the state.

The primary purpose of this Statewide Intermodal Long-Range Transportation Policy Plan is to establish policy goals which will guide Virginia's efforts to develop an efficient intermodal transportation system for the future. This plan results from an extensive public involvement process. Two rounds of public meetings were held in each

of VDOT's nine construction districts. Information and comments gathered at thes meetings were used to refine the plan.

This plan is not a technical report that includes a list of transportation construction projects. Instead, this plan identifies overall strategies and goals for Virginia to provide a seamless intermodal transportation system.

2.0 ISTEA REGULATIONS

In December, 1991, Congress enacted the Intermodal Surface Transportation Efficiency Act (ISTEA), which included a requirement for a statewide transportation planning process that considers all modes and connections among them and covers all areas of the state. The final rules and regulations governing the statewide planning process were issued jointly by the Federal Highway Administration and the Federal Transit Administration in October, 1993.

According to the federal regulations, the statewide transportation planning process shall include, as a minimum:

1. Data collection and analysis
2. Consideration of 23 specific planning factors
3. Coordination of activities
4. Development of a statewide transportation plan that considers a range of transportation options designed to meet the transportation needs (both passenger and freight) of the state including all modes and their connections
5. Development of a statewide transportation improvement program

As noted above, the ISTEA planning regulations require the consideration and analysis of 23 planning factors where appropriate. A full listing of the required planning factors is included in Appendix A.

The ISTEA regulations place an emphasis on coordination among all transportation providers to ensure a systems perspective is utilized to develop the statewide plan. The regulations require each state to provide for a fully coordinated process in 13 areas, including data collection and analysis, intermodal facility consideration, financial planning

and alternatives analysis. A complete listing of the coordination requirements is included in Appendix B.

3.0 WORK PLAN

The Virginia Department of Transportation had lead responsibility for the development of the Statewide Intermodal Long-Range Transportation Policy Plan. An Advisory Committee was established to coordinate and oversee all elements in the preparation of the plan. The committee was comprised of representatives from each of the state's modal agencies -- VDOT, DRPT, DOAV and VPA. A general outline of the main tasks in the work plan is presented below.

Major Work Tasks

1. Assemble and review existing studies, reports, and documents useful in the development of the policy plan; especially those studies relating to the 23 planning factors.
2. Address the 23 planning factors required by the ISTEA regulations.
3. Identify potential policies to support the implementation of Virginia's long-range transportation plan.
4. Conduct a round of Public Information Meetings to present potential policies. These meetings were held during December 1994. One meeting was held in each of VDOT's nine construction districts with total attendance at the nine meetings exceeding 300 people.
5. Refine policies based on comments received at Public Information Meetings.
6. Conduct a second round of Public Information Meetings to receive comments on refined policies. These meetings were held during March and April 1995.
7. Finalize recommended policies.
8. Prioritize the transportation policies against financial constraints.

4.0 POLICIES AND ACTION PLAN

Virginia's Transportation Secretariat spent nine months during 1994 developing a strategic plan for transportation in Virginia. A series of forums was held to engage public and private sector transportation stakeholders in a dialogue to help define and articulate how that vision would be put into action. The forums, involving over 200 participants, were held across the Commonwealth. Additionally, individuals and organizations provided written comments. Hundreds of ideas and suggestions provided by the participants were reviewed and summarized by working groups to help develop the strategic plan.

The mission statement developed to guide Virginia's future transportation investment states: "Virginia will have a safe, efficient, intermodal transportation system with seamless connections among all modes. The Commonwealth will develop a balanced, environmentally sound transportation system that provides mobility, responds to the market and fosters economic prosperity with a range of viable modal choices. Transportation policies and planning will emphasize the movement and people and goods from origin to final destination rather than mode-specific travel."

The policies that will guide Virginia's strategic vision and long-range planning fr all modes of transportation fall into seven general categories which encompass many c. the 23 planning factors outlined by FHWA: Intermodalism, Deregulation, Economic Development, Markets, Privatization, Freight, and Technological Leadership and Safety.

Intermodalism

Virginia is committed to pursuing intermodal solutions to Virginia's transportation needs. Improved connectivity among modes will be fostered to improve the efficiency and effectiveness of the transportation system. A full range of modal alternatives for passengers and freight will be encouraged to provide choice and competition in the marketplace. Strategic investments to increase mobility by improving connectivity among modes will be identified and implemented.

The movement of freight from origin to destination increasingly is being accomplished through the use of more than one mode. For example, a new product may be shipped by truck from the manufacturer to a rail terminal where it is transferred to a

railroad car for the long haul to a warehouse near its destination. From the warehouse, it is delivered by truck to its final destination. This logistics chain and the ease of transfer among trucks, planes, railroad cars and ships is the key to intermodal freight transportation.

Most freight transfers to trucks before final delivery, making the planning of highway/other mode connections critical to eliminating bottlenecks. These transfer points include highway access to truck terminals, air freight terminals, railroad sidings or intermodal transfer facilities, and port facilities. Congestion delays at or near these transfer points introduce an element of uncertainty which makes the economies of "just-in-time" deliveries difficult to achieve. If a shipper cannot be assured that connections will be seamless, intermodal freight movement is discouraged.

The responsibility for passenger services is dispersed among a number of private and public entities. This diffused system has made the coordination of services into a seamless network difficult in the past. Because of the institutional relationships, passenger transportation planning and service has tended to focus on improvements to one mode at a time. But system diffusion results in uncertain connections and hinders increasing ridership.

Most urbanized areas in Virginia provide public transportation services. Due to the construction cost for rail facilities and the high density of development required to support rail service, bus transit systems will continue to be the largest provider of public transportation. Improving modal connections to facilitate the use of bus transit is an important part of the effort to reduce congestion.

Park and ride facilities provide the critical connection between mass transit service and commuters using the automobile for a portion of their trip. Parking garages, for example, are located adjacent to Metro and Virginia Railway Express (VRE) stations and many bus lines so that commuters can leave their vehicles to complete the rest of their trip by transit. In the Tidewater area, passenger ferry service is provided daily from downtown Portsmouth to the heart of Norfolk's central business district.

Intermodal passenger facilities extend beyond those provided between cars and mass transit service. Other examples of efforts to improve connections between

passenger modes include bicycle racks at Metro stations, Metro service to Washingt National Airport, and connecting bus service to Amtrak stations and Metro rail.

To ensure that Virginia responds to transportation needs from a multimodal perspective and plans for an integrated transportation system for the future, the following policies are being implemented to facilitate statewide long-range intermodal planning:

- Identify opportunities to enhance strategic intermodal connections. A single inadequate connection in the transportation system will reduce the efficiency of the overall system. The ensure the availability of a full range of modal choices and to improve access, efficiency and throughput of the system, connections among modes will receive special attention.

- Conduct a detailed inventory of Virginia's intermodal facilities (including passenger facilities as well as bulk transloading facilities, coal transloads, and automobile loading/unloading ramps) and identify existing and projected bottlenecks at critical access points between modes.

- Identify strategic passenger and freight intermodal corridors in the Commonwea and needed project improvements along these corridors, including consideration of double-stack railroad lines. Encourage the MPOs to support these projects and incorporate these corridors into their regional transportation plan.

- Support the improvement and further development of strategic intermodal centers such as Dulles International Airport, the Ports of Hampton Roads, and the Virginia Inland Port.

- Recommend that representation on MPOs be expanded to include all regional modes and freight groups.

- Incorporate intermodal planning, including planning for bicycle, pedestrian and telecommuting facilities, in the transportation planning efforts at the state and regional levels.

- Consider a full range of modal alternatives when assessing transportation needs for passengers and freight.

Deregulation

Compliance with state and federal regulations has long been considered burdensome by many in the motor carrier industry. In transportation today, regulation of the industry often actually increases costs with little if any off-setting "public" benefit. In Virginia, nine agencies are responsible for the promulgation and enforcement of motor carrier regulations including the State Corporation Commission, the Departments of Motor Vehicles, State Police, Transportation. The plethora of regulations interferes with the efficiency of the motor carrier industry and consequently impedes the growth of the Commonwealth's economy and competitiveness.

Regulatory and administrative barriers to the efficient use and development of the transportation system will be identified and removed to enhance productivity. Except where specifically justifiable (for example, perhaps in some safety arenas), state regulatory requirements should not exceed federal requirements. Virginia's action plan to remove unnecessary regulatory burdens and enhance the movement of commercial vehicles includes the following items:

- Implement a "one-stop shopping" program through which motor carriers can secure necessary registration, licensing and other requirements of all state agencies in a single visit to one location.

- Eliminate trucking regulations which are incompatible with the federal deregulation of intrastate trucking.

- Expand Surface Transportation Assistance Act (STAA) route eligibility and reduce the regulatory burden of truckers.

- Recommend legislation to treat containerized cargo bound to or from a seaport as irreducible loads eligible for permitting.

- Establish a public-private Task Force to review laws and regulations governing railroads to simplify regulations, remove archaic language, and respond to changes in federal railroad regulations.

Economic Development and Markets

Virginia's existing transportation infrastructure, whose replacement value is in the billions of dollars, makes an enormous and indispensable contribution to economic productivity. Virginia will continue its commitment to maintain its existing facilities for moving people, freight and information throughout the Commonwealth and pursue technical and procedural innovations that improve the efficiency of maintenance expenditures.

Providing a high quality transportation system is critical to attract and retain major employers. Improving the transportation infrastructure is a critical step to attract new industries and to secure Virginia's economic future. Transportation investment decisions must be responsive to market needs and be based on sound economic principles. Strategic investments in the arena of Automated Highway Systems –such as Virginia's "Smart Highway" project – boost the throughput of the existing infrastructure as well as creating centers of economic growth and development.

Virginia must base its transportation investment decisions on sound economic principles. This means that the Commonwealth must utilize a market approach, including comprehensive measures of economic costs and benefits to prioritize its transportation planning and investment options.

Virginia's plan to develop a transportation planning and investment approach that is responsive to the Commonwealth's economic develop needs includes undertaking the following initiatives:

- Increase the flexibility in the use of Industrial Road, Rail Industrial and Airport Access funds for economic development.

- Make transportation investments that maximize the potential of Virginia's tourism resources and promote economic growth.

- Maximize the economic development impacts of the Transportation Enhancements Program by developing project selection criteria that focus on tourism and other economic development opportunities.

- Appoint a contact to coordinate transportation planning efforts with the State Division of Tourism.

- Support the "Smart Highway" project currently under development and the adaptation of "Smart" technologies and their compatibility for other forms and modes of transportation.

Privatization

Public sector funds for transportation are limited. By utilizing private sector resources to finance transportation infrastructure, public sector funds are freed-up for other projects. Maximizing private sector involvement in infrastructure development results in an expanded transportation pie. The public-private approach suggested here is intended to supplement – not supplant – public efforts in transportation.

The provision of transportation assets and the delivery of transportation services will be enhanced through innovative financing techniques such as public-private partnerships and privatization initiatives. Private sector solutions to meeting transportation needs must be encouraged. To facilitate the expanded use of public-private ventures the following actions are being implemented in Virginia:

- Secure enactment of the Virginia Public-Private Transportation Act of 1995 to improve Virginia's ability to compete for private financial resources for transportation facilities.

- Secure enactment of a companion piece of legislation to establish a revolving fund to enhance the Commonwealth's ability to participate in public-private partnerships under the state's jurisdiction.

- Utilize Value Engineering to identify transportation activities and functions that can best be performed by the private sector. Initially, the feasibility of privatizing road maintenance, project design and equipment repair and maintenance should be pursued.

At the federal level, the FHWA Innovative Financing Project initiative will provide States alternative methods to leverage the capital that funds their highway projects. Several powerful tools contained in ISTEA permit States to loan federal-aid highway money to fund local and public/private transportation ventures. Virginia will take full advantage of these provisions to expand the availability of transportation in the Commonwealth.

Freight

Traditionally, freight needs have been overshadowed by passenger needs in the planning process and decisions made on a mode-specific basis. Virginia will expand its efforts to consider the special needs of freight shippers as part of providing a world-class transportation system.

Because freight movement frequently spans multiple modes of transportation, financing of freight system improvements often is precluded because projects cross lines between different funding programs. Virginia will support flexibility of fund use and seek innovative financing techniques to support critical freight needs.

Freight movement in the Commonwealth will be explicitly considered and facilitated in the planning and development of the transportation system in the following manner:

- Include consideration of freight and its movement in all transportation planning processes and place an emphasis on intermodal solutions.

- Create a Multimodal Freight Advisory Group to the Secretary of Transportation comprised of private sector freight carriers of all modes. This group will be available to advise the Commonwealth Transportation Board, the Virginia Aviation Board, the Port Authority Board of Commissioners and MPOs on transportation issues and concerns related to the movement of freight. The Secretary will designate staff to support the efforts of the group.

- Review federal laws, including ISTEA, and identify exclusions in the law, to ensure that Virginia utilizes all available funds to improve freight linkages.

Technology and Safety

Safety has been, and will continue to be, a high priority in Virginia's transportation system. Technology plays a key role in making the transportation system safer and improving its throughput and overall effectiveness. The Commonwealth will make safety a cornerstone of its transportation system and employ every reasonable means to ensure that risks to travelers are minimized, regardless of the mode by which they travel.

Virginia's transportation agencies will utilize advanced research and technology to improve productivity and efficiency, create smooth intermodal connections, replace person travel (i.e. telecommunication), and reduce the life-cycle costs of building and maintaining transportation facilities. Virginia will continue to invest heavily in ITS, Geographic Information Systems and other technologies that help provide for improved mobility of passengers and freight.

Research and state-of-the-art technology increase safety and improve productivity and quality of service. Virginia will lead the research community in the development of innovations and in the application of technology to improve safety and mobility, to increase the capacity of the infrastructure and to foster economic development through the following initiatives:

- The Commonwealth will direct resources to technologies that reduce congestion, provide improved traveler information, and reduce the cost of moving travelers from point of origin to point of destination and eliminate the need to travel.

- Develop and deploy a statewide traveler information system. This system will support incident and congestion management, improve the state's ability to relay important safety messages to travelers, and promote tourism within the state.

- Support research efforts to reduce accidents in rail corridors. Many accidents occur at rail crossings when vehicles attempt to cross the tracks in front of an oncoming train.

- Accelerate implementation of a GIS to support real-time routing analysis and other Intelligent Transportation technologies.

5.0 PLANNING FACTORS

To develop the policies guiding Virginia's long-range intermodal transportation plan, Virginia's transportation agencies analyzed the State's transportation systems in terms of the 23 planning factors outlined in the ISTEA regulations. The following section delineates how each planning factor was addressed.

1. The Transportation Needs Identified Through the Management Systems

Management Systems provide a systematic process to assist decision-makers in selecting cost effective strategies and actions to protect investments and improve efficiency and safety of the transportation network. The Management Systems include performance measures, data collection and analysis, determination of needs, evaluation of alternatives, and selection of strategies and evaluation of their effectiveness. ISTEA requires six Management Systems: Pavement, Bridge, Highway Safety, Traffic Congestion, Public Transportation Facilities and Equipment, and Intermodal. In addition, a Traffic Monitoring System is also required. Work plans for Virginia's management and monitoring systems were submitted to FHWA in 1994.

To integrate the products of the management systems into the statewide intermodal planning process, VDOT reviewed the following reference documents: "Work Plan for the Pavement Management System" (VDOT, September 1994); "Work Plan for the Bridge Management System" (VDOT, September 1994); "A Strategic Plan for the Design and Creation of a Safety Management System for the Commonwealth of Virginia" (Virginia Transportation Research Council, October 1994); "Congestion Management Work Plan" (VDOT, September 1994); "Public Transportation Management System - Work Plan" (Virginia Department of Rail and Public Transportation, September 1994); "Intermodal Management System - Work Plan" (VDOT, September 1994); and "Traffic Monitoring Systems Development Study" and "Traffic Monitoring System Development Study - Implementation Plan" (Cambridge Systematics, Inc. a consultant for VDOT, May and July 1994).

None of the management systems are fully operational at this time. However, the workplans for each of the systems were developed in light of the

outcomes needed to support Virginia's long-range transportation planning efforts. For example, the traffic monitoring system will provide improved VMT tracking; the pavement management system will allow for life-cycle cost analysis of paving options; the intermodal management system will identify alternative strategies to facilitate connectivity among modes; and the congestion management system will allow Virginia to evaluate system performance and identify deficiencies. The products of all of these efforts will enhance the long-range planning and programming activities for transportation infrastructure in Virginia.

2. Any Federal, State, or Local Energy Use Goals

To facilitate consideration of energy use goals in the statewide transportation planning process, VDOT reviewed the report "Virginia Leads the Way: Planning for a Sustainable Energy Future," prepared by the Virginia Department of Mines, Minerals, and Energy in October of 1992. This report sets out an energy plan for Virginia and stipulates the goals, objectives and strategies for energy management. Transportation is a key element of the energy plan. The transportation initiatives to reduce energy consumption in Virginia include the encouragement of transportation demand management techniques such as HOV lanes, public transit enhancement, support for alternative fueled vehicles and telecommuting. TDM and TSM strategies are assessed whenever Virginia undertakes an improvement project, especially in the air quality nonattainment regions.

3. Strategies for Incorporating Bicycle and Pedestrian Facilities in Appropriate Projects

The Virginia Department of Transportation has been proactive in its integration of bicyclist and pedestrian needs into the transportation planning process. VDOT funds paved shoulders, shared lanes, bike lanes and trails as well as bicycle racks and lockers.

VDOT has a Bicycle Advisory Committee that notifies local bicycle clubs of planned highway projects so that they can provide input on the need for bicycle facilities. A VDOT transportation planning staff member reviews highway plans to

determine if the project coincides with recommendations contained in local bike plans. VDOT has established two interstate bicycle routes. VDOT and the Bicycle Advisory Committee are presently preparing a statewide bicycle suitability map.

In July 1994, VDOT and the Bicycle Advisory Committee developed a draft planning guide for local governments, regional planning agencies and MPOs to assist them in developing bike plans for their areas. Technical assistance is also provided by VDOT staff for the development of local bicycle plans.

VDOT currently is reviewing its policy for participating in the cost of pedestrian facilities. Before programming, all projects are reviewed by staff to determine the need for pedestrian facilities. One source of funding for both pedestrian and bicycle projects is Virginia's Enhancement funds.

4. International Border Crossings and Access to Ports, Airports, Intermodal Facilities, Major Freight Distribution Routes, National Parks, Recreation and Scenic Areas, Monuments and Historic Sites, and Military Installations

One of the major provisions of ISTEA was the authorization of the National Highway System (NHS). The purpose of the NHS is to provide a system of highways that meets national defense requirements, serves interstate and interregional travel, and serves major travel destinations, international border crossings, major population centers, major ports, major airports, major public transportation facilities, and other major intermodal facilities. The highways that will comprise Virginia's portion of the NHS have been recommended by VDOT and approved by FHWA, but have not yet been approved by Congress. The NHS routes recommended by Virginia consist of 3,447 miles. The recommended system represents 5.1 percent of the total statewide roadway mileage, but carries nearly 50 percent of the roadway vehicle miles of travel. The NHS routes selected by Virginia were selected to ensure that there was adequate access to the types of locations cited in this planning factor.

Selecting the key highways and connection points among modes and delineating them as a system of national significance will serve to ensure that these routes are considered first in the transportation planning process.

Connections among highway and other modes as well as key facilities will also be integrated into the Intermodal Management System (IMS). The work plan for the IMS describes the process for developing and implementing a system that addresses and evaluates major freight distribution routes and access to ports, airports and other intermodal facilities.

5. Non-Metropolitan Area Transportation Needs

In 1993 Virginia instituted a rural transportation planning assistance program for the Planning District Commissions (except for the Northern Virginia PDC) with a grant of $40,000 per year in State Planning and Research (SPR) funds to each Planning District Commission (PDC). VDOT has entered into agreements with each of the PDCs to ensure the funds are used to: 1) Review statewide transportation plans and compile local government comments relative to plan updates; 2) Review annual Statewide Transportation Improvement Programs for all modes; 3) Assess impacts of major developments; 4) Develop regional consensus on priorities of transportation programs for consideration by Virginia's Commonwealth Transportation Board; 5) Identify major regional issues pertaining to transportation safety, road capacity, and accessibility; and 6) Identify methods to expand and enhance transit services and to increase the use of such services.

For urban areas with a population greater than 3,500 but less than 50,000, VDOT prepared a long-range assessment of each area's transportation system and recommended a set of transportation improvements that can best satisfy existing and future needs. Plans have been developed for the urban areas of Abingdon, Altavista, Ashland, Bedford, Big Stone Gap, Blacksburg, Blackstone, Bluefield, Bridgewater, Buena Vista, Chase City, Chincoteague Island, Christiansburg, Clifton Forge, Covington, Culpeper, Elkton, Emporia, Farmville, Franklin, Front Royal, Galax, Grottoes, Harrisonburg, Lebanon, Lexington, Luray, Marion, Martinsville, Narrows, Norton, Pearisburg, Pulaski, Radford, Richlands, Rocky Mount, Saltville, South Boston, South Hill, Staunton, Tazewell, Warrenton, Waynesboro, Winchester, Wise, Woodstock, and Wytheville. These transportation plans are utilized by VDOT to evaluate requests from local governments for specific projects and for implementing projects which VDOT initiates. The preparation of these plans was coordinated with the local jurisdictions involved. Local input was solicited and

utilized in the identification of deficiencies and the development of recommendations. These plans are updated upon the request of the localities.

6. Metropolitan Area Transportation Plans

Virginia is involved with the development of transportation plans for all eleven major metropolitan areas of the State. These consist of the urbanized areas for Bristol, Charlottesville, Danville, Fredericksburg, Hampton Roads, Kingsport, Lynchburg, Northern Virginia, Richmond, Roanoke, and the "Tri-Cities Region" – Petersburg, Colonial Heights, and Hopewell.

Each MPO is assigned a member of VDOT's transportation planning staff to help them with the development of their metropolitan plans and ensure coordination between the metropolitan plans and the statewide transportation plan. VDOT personnel provide technical guidance for the evaluation of needs, setting of criteria, alternatives analysis and financial planning. Projects included in the metropolitan plans are not selected by the MPOs alone. Representatives of transit companies, local airports and port facilities as well as local highway residency personnel are involved in the assessment of needs.

7. Connectivity Between Metropolitan Areas

One of the primary elements that makes Virginia's's statewide transportation plan more than a compilation of local area plans is the inclusion of supra-regional strategies. The State transportation agencies provide the big picture perspective to ensure that mobility throughout the state is enhanced. By including assessments of needs on the Interstate and National Highway Systems, intercity passenger and freight rail needs, airport needs and port needs in Virginia's planning activities, the Commonwealth ensures that inter-regional travel and connectivity is enhanced.

Specific studies conducted by Virginia's's transportation agencies to assess connectivity between metropolitan areas include, "Rail Needs Assessment and Planning Methodology Report," "State of Virginia – National Highway System

Inventory," "Virginia Air Cargo and Air Transportation System Plans," and the "Virginia 2010 Statewide Highway Plan."

8. Recreational Travel and Tourism

Tourism is one of the largest industries in Virginia. In 1992, 158,000 jobs were supported by travel spending, and domestic travelers' expenditures in Virginia were $8.6 billion. An adequate transportation infrastructure and appropriate access to these attractions are critical to retaining Virginia's status as a major tourism state. Virginia's Department of Economic Development includes a Division of Tourism. This office produced a report "1994 Marketing Plan" that presents the mission and goals of the Commonwealth in regard to recreational travel and tourism. Another resource document utilized in addressing this planning factor was "1995 Domestic & International Tourism Marketing Opportunities," also prepared by the Division of Tourism.

Virginia's Transportation Secretariat has been working to increase its efforts to promote and support tourism and recreational travel. The agencies of the Secretariat are identifying existing and potentially significant tourism corridors and examining the feasibility of supporting tourism-related transportation improvements. In addition, the State is developing and deploying a statewide traveler information system. This system will support incident and congestion management, improve the state's ability to relay important safety messages to travelers, and promote tourism within the state.

Another significant resource in addressing recreational travel and tourism is "A Map of Scenic Roads in Virginia" prepared by the Virginia Department of Transportation in October of 1994. This map traces over 2,000 miles of scenic roads in the State and is distributed free of charge to assist travelers visiting Virginia.

9. State Plans Developed Pursuant to the Federal Water Pollution Control Ac

The report "Virginia Water Quality Assessment For 1994," prepared by the Virginia Department of Environmental Quality, describes Virginia's water quality conditions during the time period of July 1, 1991 through June 30, 1993. In addition, the document entitled "Permit Regulations" was prepared by the State Water Control Board in September of 1989. This document delineates the procedures and requirements to be followed in connection with permits issued by the Board pursuant to federal or state law.

Also, the study "Virginia Threshold Review Report" was prepared by the Virginia Department of Conservation and Recreation in May of 1994. This report is an assessment of state programs as they apply to the protection of water quality and coastal habitat under the Coastal Zone Management Act.

10. Transportation System Management and Investment Strategies Designed to Make the Most Efficient Use of Existing Transportation Facilities

Technology provides a means to increase throughput and capacity without denigrating safety. Virginia will continue to invest heavily in IVHS (referred to increasingly – and more appropriately – as ITS), Geographic Information Systems and other technologies that help provide for improved mobility of passengers and freight.

Virginia has deployed advanced traffic management systems in two major metropolitan areas of the State – the Northern Virginia (Washington D.C.) region and Tidewater – to monitor traffic and maximize utilization of the transportation infrastructure. The primary responsibility of TMS is incident management. Another responsibility is to provide congestion management. Loop detectors are installed throughout the system to monitor traffic flow and detect incidents. Closed circuit television is utilized to verify detected incidents and aid in incident management. Ramp meters are stationed throughout the network to regulate traffic flow onto the interstates during peak periods. In addition, 100 changeable message signs are used to provide travelers with information regarding network conditions.

Other technologies utilized in Virginia to make the most efficient use of existing transportation facilities include the use of a FASTOLL system for the Dulles Toll Road.

Another manner through which to maximize transportation infrastructure is to invest wisely. VDOT has a nationally recognized Value Engineering program used to identify ways to improve projects, processes and procedures in order to increase value and reduce costs. Five regional coordinators lead teams that review approximately 60 construction projects annually. Over the past three years, these reviews have resulted in $35 million in cost savings.

11. Social, Economic, Energy, and Environmental Effects of Transportation Decisions

A 1994 report by Virginia's Secretary of Commerce and Trade, entitled "Opportunity Virginia," discusses the importance of transportation to the economic well being of Virginia. The report is a synthesis of studies and reports on economic development and other approaches that address current and future challenges. The Secretary of Transportation played an integral role in the preparation of this study, understanding that transportation is key to economic development.

The report "The Economic Impact and Rate of Return of Virginia's Ports on the Commonwealth : 1992" was prepared for the Virginia Port Authority by Gilbert R. Yochum, Ph.D. and Vinod B. Agarwal, Ph.D. in April of 1994. The purpose of the study was to measure the impact of the ports of Virginia on economic activity in the state and Hampton Roads communities and to estimate the subsequent rate of return on the state's investments in the general cargo facilities of the ports. The economic impact of the ports was measured in terms of the employment, payroll, and tax revenues generated as a result of port activity.

VDOT prepared the report "State Environmental Review Process" to present the process used by VDOT to ensure agency cooperation in planning, designing, and constructing transportation facilities. This process affords the environmental resource agencies the opportunity to comment on highway improvements early in the project development process.

Virginia has undertaken a number of initiatives to mitigate transportation impacts on the environment. One new program is the implementation of a real-time data link between the Department of Environmental Quality and private emissions inspection stations to ensure that motor vehicle registrations in Northern Virginia, Richmond, and Hampton Roads are appropriately based on a vehicle passing or failing a federally required emissions test.

VDOT has just completed a review of its design standards for scenic and historic roadways to establish a procedure to ensure their enhancement. The focus will be on protecting the natural environment.

12. Methods to Reduce and Prevent Traffic Congestion

Congestion management is critical to the maintenance of an effective multimodal transportation system. One of the primary goals of transportation planning is foreseeing and remedying congestion. Transportation Demand Management and Transportation System Management play a major role in the activities undertaken by Virginia's transportation agencies. Virginia was the first State to pioneer the use of high occupancy vehicle (HOV) lanes on I-395 in the Washington area. The use of HOV lanes has expanded dramatically in the last twenty years in both the Northern Virginia and Tidewater regions. Virginia has begun installing reversible HOV lanes to accommodate rush-hour traffic.

Other methods used to reduce traffic congestion include the provision of transit services and commuter rail, the promotion of ride-sharing and telecommuting, and building park and ride lots.

Virginia is accelerating its implementation of a GIS. The Commonwealth will develop comprehensive and accurate transportation network mapping through GIS applications to support real-time routing analysis and other Intelligent Transportation technologies. In addition, Virginia is developing and deploying a statewide traveler information system. This system will support incident and congestion management, improve the state's ability to relay important safety messages to travelers, and promote tourism within the state.

13. Methods to Expand and Enhance Transit Services and to Increase Usage

Virginia has a separate agency – the Virginia Department of Rail and Public Transportation (DRPT) – to coordinate transit services. Its mission is to establish, maintain, improve, and promote public transportation services and passenger and freight rail transportation systems that offer citizens mobility and transportation choices; to advise the Governor and Legislature on choices that promote a balanced multimodal transportation system in Virginia; and to oversee the distribution of state and federal funds allocated for mass transportation in a manner consistent with legislative and regulatory directives. To assist Virginia's public transportation providers to expand and enhance transit services and to increase usage DRPT administers and manages state and federal grant programs, conducts performance evaluations of all state transit systems, provides technical assistance, and works to support improvements to human service transportation.

The document "Department of Rail and Public Transportation - Background Information" was prepared by DRPT in April of 1994. This document includes a listing, brief description and FY-94 funding levels of public transportation grant programs administered by DRPT. It also includes a description of other activities and services in which DRPT is involved. One of the most notable activities is the provision of technical assistance and staff assistance in marketing planning, product development, promotion planning and implementation, and marketing research to public transportation operators and agencies.

Virginia also supports the operation of the Virginia Railway Express (VRE) which provides commuter rail service in the Northern Virginia region. Two lines, one from Fredericksburg and one from Manassas, operate with stations throughout the region. The State recently assisted VRE with negotiating agreements with two railroads that own the lines. The Commonwealth also is undertaking a major investment study of the Route 66 corridor (the area where the Manassas line runs) to evaluate the need for additional service in that region.

One activity that both will enhance and increase transit service is the provision of technical assistance grants to localities to employ new technologies designed to facilitate connections among mass transit services. In particular, Virginia will support the development of Automatic Vehicle Identification (AVI)

technology and so-called "Smart Cards" that would allow passengers to pay for travel on various transit systems with one card.

14. The Effect of Transportation Decisions on Land Use and Land Development

The Virginia Department of Transportation works with local jurisdictions to review site plans, evaluate traffic impacts, and recommend transportation improvements needed to serve proposed land development sites. The document "Land Development - Volume I - Site Plan and Subdivision Review Process - Draft" prepared by VDOT in August of 1994 serves as a guide for site plan and subdivision reviews. This document will be the first volume of a three volume "Land Development Manual" currently being prepared by VDOT. This document is not a compilation of regulations, but a guide to be utilized by localities to integrate effectively land use and transportation planning.

Virginia's General Assembly passed legislation (Code of Virginia, Section 15.1-491.2:1.) whereby local jurisdictions, through their zoning ordinances, can allow voluntary proffers of "off site" improvements by developers to alleviate the traffic impacts caused by their land developments.

Virginia has established uniform regulations for the purpose of controlling the use of highway rights of way where it is necessary to provide access to commercial, private, and industrial properties abutting State roads. These regulations are included in the manual "Minimum Standards of Entrances to State Highways" prepared by VDOT in March of 1989. Entrance controls not only protect through traffic from indiscriminate interferences, but are designed to promote safe and convenient entrances and exits for commercial and industrial establishments.

VDOT is also reviewing its project design standards for secondary roads and subdivision streets to find opportunities to reduce unnecessary requirements and allow for flexibility to meet local needs of communities.

It is absolutely essential that transportation planning be better coordinated with land use issues. They are very closely related. However, it is as important to ensure that the State not intrude on land use decisions that are appropriately better

left to local decision-making and that all parties continue to maintain a complete respect for the property rights enshrined in the U.S. Constitution.

15. Strategies to Identify and Implement Transportation Enhancement Projects

The federal Transportation Enhancement Program requires Virginia to pursue efforts to integrate transportation and the natural environment. Pursuant to this, the Virginia's Commonwealth Transportation Board sets aside funding for the Enhancement Program prior to allocating the highway system distributions. This program provides a means to finance activities that are outside the realm of normal transportation projects. Transportation enhancement activities can be stand-alone projects or can be implemented as part of other transportation projects. Transportation enhancement projects are activities or improvements which increase the value or worth of a project or make it more aesthetically pleasing. They should provide a quality-of-life benefit. A project is enhanced by doing something that is not common place.

In October of 1994, VDOT prepared a brochure entitled "Transportation Enhancement Program." This brochure describes the program and invites interested groups and individuals to make applications for the available funds. The Commonwealth Transportation Board allocates funds to specific projects on a statewide, competitive basis. An outside committee assists in the evaluation of projects. A listing of the transportation enhancement projects for Fiscal Year 1995 is included in the "Final Allocation of Funds - Six Year Improvement Program" adopted by the Commonwealth Transportation Board in June of 1994.

16. The Use of Innovative Financing Mechanisms

Public sector resources for transportation are limited. By utilizing private sector resources to finance transportation infrastructure, public sector funds are freed-up for other projects. Maximizing private sector involvement in infrastructure development results in an expanded transportation pie. The public-private approach in Virginia is intended to supplement -- not supplant – public efforts in transportation. Historically, Virginia has been at the forefront, nationally, passing

enabling legislation such as the Highway Corporation Act of 1988 and the Qualifying Transportation Facilities Act of 1994. The effective date of the latter bill was delayed until July 1, 1995, to allow for modifications to maximize opportunities for privatization (manifested now in the Virginia Public-Private Transportation Act of 1995).

The Public-Private Transportation Act of 1995 is the legislative framework enabling the Commonwealth of Virginia and qualifying local governments to enter into agreements with private entities to acquire, construct, improve, maintain and/or operate any transportation facility. The Act was drafted following a year-long collaboration among General Assembly members, the private sector, and Governor Allen's administration.

Under the PPTA, a private entity may use innovative financing methods, including the imposition of user fees and service payments to develop new transportation facilities. The financing arrangements may include the issuance of debt, equity or other securities and obligations. Virginia's PPTA allows for public/private ventures in all arenas of transportation infrastructure; it is not limited to highway projects. In addition, the PPTA provides a mechanism to leverage funds in creative manners.

The Secretary of Transportation also has forwarded a bill proposing amendments to Virginia's toll facilities revolving account that would permit loans to private operators for transportation facilities. This facilitates the pooling of public and private funds and allows the State to leverage its funds to the greatest extent.

The Commonwealth of Virginia has implemented a variety of other types of innovative financing initiatives. For example, The General Assembly authorized some jurisdictions to create "primary highway transportation improvement districts" to finance transportation projects through the imposition of a special real estate tax on industrial and commercial property. This mechanism was utilized for improving and widening Route 28 in Northern Virginia. Innovative financing approaches have been authorized for the Commonwealth Transportation Board and the Virginia Port Authority; each of which developed a long-term capitalization strategy predicated on the willingness of the General Assembly to appropriate funds to meet debt service, an approach that receives strong support from the bond rating agencies.

Another example of an innovative financing strategy involves the U. S. Route 58 Corridor Development Program in which a fund was established to finance extensive improvements in the Route 58 corridor along the State's southern border. The fund is supported from an annual deposit of $40 million of the recordation tax collected by the State Treasurer.

17. Identification and Preservation of Right of Way for Future Transportation Projects

Virginia has established a review process to identify and preserve right of way for future transportation needs. This right of way could include surplus property that was acquired in connection with a project or it could include excess property created when requests were made to reduce the amount of operating right of way. Abandoned rail lines also are identified. The review procedures involve VDOT's Right of Way, Transportation Planning, and Location and Design Divisions, District Administrators, Resident Engineers, DRPT and others as appropriate for specific situations. These procedures provide an opportunity to identify future transportation needs and retain those right of way properties that might be usable.

VDOT also has a policy on hardship and protective acquisitions, which allows for the acquisition of right of way in the early stages of project development when it is identified to be a critical situation. In many cases, this cannot be accomplished because plans and study documents are not finalized or funding has not been authorized for the project. At this time, Virginia law does not allow corridor preservation.

18. Long Range Transportation Needs for Movement of Persons and Freight

All of the policies and actions outlined in this plan are intended to address the long-range transportation needs for the movement of persons and freight and in Virginia. Virginia's state transportation agencies coordinate their efforts with local governments, planning district commissions and metropolitan planning organizations. The Secretary of Transportation is

working to ensure that the needs of all modes are considered at the metropolitan level as well, by expanding membership on the MPOs.

19. Methods to Enhance the Efficient Movement of Commercial Motor Vehicles

Virginia's strategic location along the I-64, I-81, I-85, and I-95 corridors allows commercial motor carriers who move domestic trailer loads and less than truck load shipments to provide excellent service to all business segments within the region.

To enhance the efficient movement of commercial vehicles Virginia is eliminating unnecessary State regulations. Regulatory compliance is costly and time consuming for commercial motor vehicles. In Virginia, nine agencies are responsible for the promulgation and enforcement of motor carrier regulations including the State Corporation Commission, the Department of Motor Vehicles, the State Police, the Department of Transportation, and the Department of Environmental Quality. The plethora of regulations and agencies involved not only makes compliance costly but interferes with the efficiency of the motor carrie industry, consequently impeding the state's economic growth The 1995 legislative package put forth by Virginia's Transportation Secretariat includes a number of measures aimed to decrease the regulatory burden on commercial freight movers.

To prepare fully for the deployment of automatic vehicle identification infrastructure, Virginia will move to consolidate motor carrier credentials. The database will allow Virginia to be fully prepared for electronic clearance once the infrastructure is deployed on a regional basis.

In addition, enhancing the efficient movement of commercial motor vehicles will be addressed in the Intermodal Management System (IMS) which is one of the management systems identified in planning factor 1. The work plan for the IMS (referenced in the description for planning factor 1) describes the process for developing and implementing a system for managing intermodal facilities. The operation of commercial motor vehicles is a key element in the intermodal network.

Many of the actions planned to enhance the efficient movement of commercial motor vehicles are listed in the Policy section, under deregulation.

20. The Use of Life-Cycle Costs in the Design and Engineering of Bridges, Tunnels, and Pavements

Life-cycle costing is an economic assessment of design and engineering alternatives which considers all significant costs of ownership over the economic life of the alternatives. The Virginia Department of Transportation considers life-cycle costs in their design and engineering activities for bridges, tunnels and pavements. The Pavement Management System (PMS) shall have the ability to optimize at the project and network levels. Investment analysis will be the focal point of the PMS; this analysis will consider life-cycle costs in its evaluation. Life-cycle cost comparisons provide a tool for decision makers in evaluating the network in financial terms.

21. The Coordination of MPO Plans and Programs With Statewide Plans and Programs

Virginia is involved with the development of MPO transportation plans and programs for eleven metropolitan areas. These consist of the urbanized areas for Bristol, Charlottesville, Danville, Fredericksburg, Hampton Roads, Kingsport, Lynchburg, Northern Virginia, Richmond, Roanoke, and Tri-Cities. The transportation plans and programs developed for these MPO areas are coordinated with statewide transportation plans and programs. VDOT assigns a staff member to work with each MPO to ensure that the statewide and regional plans are developed in a coordinated fashion. DRPT field representatives also participate in MPOs' technical transportation planning process.

22. Investment Strategies to Improve Adjoining Roads That Support an Area With Use as a Center for Rural Economic Growth, Tourism or Recreational Development, Federal Renewable Resource Management, or Multipurpose Land Management Practices.

There were two primary resource documents utilized in addressing this planning factor for the Statewide Transportation Plan. The first document was the "Guide to the Recreational Access Program of the Virginia Department of Transportation" prepared by VDOT in July of 1991. This document provides a comprehensive summary of the Recreational Access Program as governed by the Commonwealth Transportation Board. It serves as a guide for local jurisdictions in the preparation of applications for funding. This document defines eligible projects, summarizes funding limitations, and describes the roles of the parties involved in the application and approval process. The other significant resource document was the "Guide to the Industrial Access Roads Program of the Virginia Department of Transportation" prepared by VDOT in March of 1992. Industrial Access funds may be allocated by the Commonwealth Transportation Board to be utilized for financing the construction or improvement of roads within counties, cities and towns to provide adequate access for sites on which new or substantially expanding manufacturing, processing or other qualifying establishments will be built under firm contract or are already constructed.

Federal renewable resource management refers to activities and/or lands of Federal agencies charged with managing renewable resources such as forests or wetlands. Several Federal agencies have jurisdiction over and responsibility for managing lands and the renewable resources contained within. These include agencies such as the Forest Service, the Fish and Wildlife Service, the Bureau of Land Management, and the National Park Service. The Virginia Department of Transportation has contacted the Federal renewable resource management agencies to request their involvement in statewide transportation planning activities.

23. Concerns of Indian Tribal Governments

This planning factor is not applicable in Virginia.

6.0 SUMMARY

Transportation is vital to Virginia's economy and quality of life. It is the mechanism for the safe and efficient local, regional and international movement of people and goods. It provides access to economic opportunities and the vast cultural, educational and recreational resources of our Commonwealth.

The Commonwealth must have a vision that provides for a coordinated, comprehensive transportation system, effectively integrating all modes (rail, aviation, maritime, highways and transit) and establishing efficient connections among them. Transportation initiatives must be system-oriented and non-mode specific and derive from a vision that reflects a balance of benefits and costs and emphasizes mobility for people and goods from origin to through final destination.

The overarching goal of the strategic plan for transportation is to provide for a superior system that has, as its first objective, ensuring mobility of the citizens of Virginia. In order to advance this goal, the policies outlined in this plan will guide Virginia's transportation planning process.

7.0 REFERENCE STUDIES, REPORTS, AND DOCUMENTS

Statewide Reports

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"Virginia State Rail Plan 1990 Update;" Virginia Department of Rail and Public Transportation; 1993.

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"Virginia Threshold Review Report;" Virginia Department of Conservation and Recreation; May, 1994.

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"Work Plan for the Bridge Management System;" Virginia Department of Transportation; September, 1994.

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APPENDIX A

Planning factors required to be considered by the Statewide Planning; Metropolitan Planning; Rule

1. The Transportation Needs Identified Through the Management Systems

2. Any Federal, State, or Local Energy Use Goals

3. Strategies for Incorporating Bicycle and Pedestrian Facilities in Appropriate Projects

4. International Border Crossings and Access to Ports, Airports, Intermodal Facilities, Major Freight Distribution Routes, National Parks, Recreation and Scenic Areas, Monuments and Historic Sites, and Military Installations

5. Non-Metropolitan Area Transportation Needs

6. Metropolitan Area Transportation Plans

7. Connectivity Between Metropolitan Areas

8. Recreational Travel and Tourism

9. State Plans Developed Pursuant to the Federal Water Pollution Control Act

10. Transportation System Management and Investment Strategies Designed to Make the Most Efficient Use of Existing Transportation Facilities

11. Social, Economic, Energy, and Environmental Effects of Transportation Decisions

12. Methods to Reduce and Prevent Traffic Congestion

13. Methods to Expand and Enhance Transit Services and to Increase Usage

14. The Effect of Transportation Decisions on Land Use and Land Development

15. Strategies to Identify and Implement Transportation Enhancement Projects

16. The Use of Innovative Financing Mechanisms

17. Identification and Preservation of Right of Way for Future Transportation Projects

18. Long Range Transportation Needs for Movement of Persons and Freight

19. Methods to Enhance the Efficient Movement of Commercial Motor Vehicles

20. The Use of Life-Cycle Costs in the Design and Engineering of Bridges, Tunnels, and Pavements

21. The Coordination of MPO Plans and Programs With Statewide Plans and Programs

22. Investment Strategies to Improve Adjoining Roads That Support an Area With Use as a Center for Rural Economic Growth, Tourism or Recreational Development, Federal Renewable Resource Management, or Multipurpose Land Management Practices.

23. Concerns of Indian Tribal Governments

APPENDIX B

ISTEA regulations require coordination on the following thirteen areas, as appropriate in the statewide transportation planning process:

1. Data collection, data analysis, and evaluation of alternatives for transit, highway, bikeway, scenic byway, recreational trail, and pedestrian programs

2. Statewide transportation plans and statewide transportation programs

3. Data analyses used in the development of traffic data, employment data, housing availability, land use control, community development, land use projections, and management systems

4. Intermodal facility consideration and land use planning

5. Transportation planning carried out by the State, Indian tribal governments, federal agencies, local governments, MPOs, large-scale transportation providers, operators of major intermodal terminals, and multistate businesses

6. Transportation planning and transportation related actions carried out by the State, recreation agencies, tourism agencies, economic development agencies, and intermodal facility operation agencies

7. Public involvement carried out for the statewide transportation planning process and for the metropolitan transportation planning process

8. Public involvement carried out for planning and for project development

9. Transportation planning carried out by the State and environmental resource planning carried out by Federal, State and local agencies

10. Transportation planning and financial planning

11. Transportation planning and analysis of potential corridors for preservation

12. Transportation planning and analysis of social, economic, employment, energy, environmental, and housing and community development effects of transportation actions

13. Transportation planning carried out by the State to meet any and all federal requirements

APPENDIX C

VIRGINIA'S INTERMODAL CONNECTORS TO THE NATIONAL HIGHWAY SYSTEM

Virginia	Number	Type	Status	Criteria	Miles
NEWPORT NEWS/WILLIAMSBURG AIRPORT	1	AIRPORT	APPROVED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
BLAND BLVD. (ENTRANCE TO JEFFERSON AVE.)					0.5
NORFOLK INTL. AIRPORT	2	AIRPORT	APPROVED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
NORVIEW AVE. (ENTRANCE TO I-64)					1.2
RICHMOND INTL. AIRPORT	3	AIRPORT	APPROVED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
FOX RD.(ENTRANCE TO AIRPORT DR.), AIRPORT DR (FOX TO RT. 60), RT.156 (RT60 TO I-64)					2.3
ROANOKE MUNICIPAL AIRPORT	4	AIRPORT	APPROVED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
AVIATION RD. (ENTRANCE TO RT 101)					0.8
DULLES INTL. AIRPORT	5	AIRPORT	NO CONNECTOR	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
SERVED BY AN EXISTING NHS ROUTE					0.0
WASHINGTON NATIONAL AIRPORT	6	AIRPORT	APPROVED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
RT. 233 (ENTRANCE TO RT 1)					0.4
PORT OF HAMPTON RDS - LAMBERTS POINT	7	PORT	PROPOSED	SECONDARY	
CONNECTOR(S) DESCRIPTION:					
ORAPAX RD. (ENTRANCE TO RALEIGH AVE.), RALEIGH AVE (ORAPAX TO S.R. 337)					0.5
PORT OF HAMPTON - NEWPORT NEWS TERMINAL	8	PORT	PROPOSED	SECONDARY	
CONNECTOR(S) DESCRIPTION:					
25TH ST. (ENTRANCE TO HUNTINGTON), HUNTINGTON AVE (25TH TO 26TH), 26TH STR. (HUNTINGTON TO I-664)					0.4
25TH ST. (ENTRANCE TO HUNTINGTON), HUNTINGTON (25TH TO 23RD), 23RD (HUNTINGTON TO I-664)					0.5
PORT OF HAMPTON RDS - NORFOLK INTL TERM.	9	PORT	NO CONNECTOR	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
SERVED BY AN EXISTING NHS ROUTE					0.0
PORT OF HAMPTON RDS.- PORTSMOUTH TERM.	10	PORT	NO CONNECTOR	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
SERVED BY AN EXISTING NHS ROUTE					0.0
PORT OF RICHMOND - DEEPWATER TERM.	11	PORT	APPROVED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
DEEP WATER RD. (ENT. TO CONNECTOR), CONNECTOR RD. (DW RD. TO COMM.), COMMERCE RD (CONN. RD TO I-95)					1.0

Virginia	Number	Type	Status	Criteria	Miles
ALEXANDRIA INTERMODAL - NORFOLK SOUTHERN	12	TRUCK/RAIL	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
METRO RD. (TERMINAL TO S.R.401), S.R.401 (METRO TO I-95). MILEAGE INCLUDED WITH VAN DORN METRO.					0.0
CHESAPEAKE INTERMODAL - NORFOLK SOUTHERN	13	TRUCK/RAIL	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
ATLANTIC AVE. (ENTRANCE TO S.R.168), S.R. 168 (ATLANTIC TO I-64)					2.0
VIRGINIA INLAND PORT	14	TRUCK/RAIL	APPROVED	SECONDARY	
CONNECTOR(S) DESCRIPTION:					
RT. 340 (ENTRANCE TO I-66)					2.1
AMTRAK/VRE/KING ST METRO/ALEX. UNION STA	15	MULTIPURPOSE	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
CALLAHAN DR. (ENTRANCE TO KING ST.), KING ST. (CALLAHAN TO U.S.101)					0.7
AMTRAK/VRE/FREDERIKSBURG STATION	16	AMTRAK	APPROVED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
PRINCESS ANNE/CAROLINE STS. TO DIXON ST TO RT 3 TO I-95					3.7
AUTO TRAIN - LORTON STATION	17	AMTRAK	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
S.R 642 (ENTRANCE TO I-95)					0.2
VRE/MANASSAS BROAD RUN/AIRPORT	18	PUBLIC TRANSIT	APPROVED	SECONDARY	
CONNECTOR(S) DESCRIPTION:					
S.R.660 (ENTRANCE TO S.R. 28), S.R. 28 (S.R.660 TO PROPOSED RT. 234)					1.7
AMTRAK - NEWPORT NEWS	19	AMTRAK	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
RT. 60 (ENTRANCE TO RT. 17)					0.4
AMTRAK - RICHMOND STATION	20	AMTRAK	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
ENTRANCE RD. (STATION TO RT. 33)					0.1
VRE/ WOODBRIDGE STATION	21	PUBLIC TRANSIT	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
EXPRESS DR. (ENTRANCE TO RT. 687), RT. 687 (EXPRESS DR. TO RT. 1), RT. 1 (RT. 687 TO RT. 123)					0.4
GREYHOUND BUS STATION - CHARLOTTESVILLE	22	INTERCITY BUS	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
5TH STREET (ENTRANCE TO I-64)					2.1
GREYHOUND BUS STATION - RICHMOND	23	INTERCITY BUS	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
THE BOULEVARD (ENTRANCE TO I-95)					0.4

Virginia	Number	Type	Status	Criteria	Miles
GREYHOUND BUS STATION - ROANOKE	24	INTERCITY BUS	NO CONNECTOR	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
SERVED BY AN EXISTING NHS ROUTE					0.0
BALLSTON METRORAIL	25	PUBLIC TRANSIT	NO CONNECTOR	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
SERVED BY AN EXISTING NHS ROUTE					0.0
DUNN LORING METRORAIL	26	PUBLIC TRANSIT	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
GALLOWS RD. (ENTRANCE TO ROUTE 29)					0.5
HUNTINGTON METRORAIL	27	PUBLIC TRANSIT	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
KINGS HWY/241 (ENTRANCE TO ROUTE 1)					0.6
VAN DORN STREET METRORAIL	28	PUBLIC TRANSIT	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
METRO RD (ENTRANCE TO VAN DORN ST.), VAN DORN ST. (METRO RD TO I-95)					0.7
VIENNA METRORAIL	29	PUBLIC TRANSIT	NO CONNECTOR	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
SERVED BY AN EXISTING NHS ROUTE					0.0
WEST FALLS CHURCH METRORAIL	30	PUBLIC TRANSIT	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
HAYCOCK RD. (ENTRANCE TO ROUTE 7)					0.3
EAST FALLS CHURCH METRORAIL	31	PUBLIC TRANSIT	NO CONNECTOR	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
SERVED BY AN EXISTING NHS ROUTE					0.0
FRANCONIA/SPRINGFIELD METRORAIL	32	PUBLIC TRANSIT	APPROVED	SECONDARY	
CONNECTOR(S) DESCRIPTION:					
FRANCONIA/SPRINGFIELD RD. (ENTRANCE TO FAIRFAX COUNTY PARKWAY)					3.0
HAMPTON TRANSPORTATION CENTER	33	PUBLIC TRANSIT	APPROVED	SECONDARY	
CONNECTOR(S) DESCRIPTION:					
PEMBROKE AV. (ENTRANCE TO ARMISTEAD AV.), ARMISTEAD AV. (PEMBROKE TO LASALLE AV)					1.1
RICHMOND MULTI-MODAL CENTER	34	MULTIPURPOSE	NO CONNECTOR	SECONDARY	
CONNECTOR(S) DESCRIPTION:					
SERVED BY AN EXISTING NHS ROUTE					0.0
ROLLING VALLET TRANSIT STATION	35	PUBLIC TRANSIT	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
OLD KEENE MILL RD. (ENTRANCE TO FAIRFAX COUNTY PKWY)					

Virginia:	Number	Type	Status	Criteria	Miles
DALE CITY TRANSIT STATION	36	PUBLIC TRANSIT	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
DALE CITY BLVD. (ENTRANCE TO I-95)					3.2
HORNER RD.TRANSIT STATION	37	PUBLIC TRANSIT	NO CONNECTOR	SECONDARY	
CONNECTOR(S) DESCRIPTION:					
SERVED BY AN EXISTING NHS ROUTE					0.0
POTOMAC MILLS TRANSIT STATION	38	PUBLIC TRANSIT	PROPOSED	SECONDARY	
CONNECTOR(S) DESCRIPTION:					
ENTRANCE ON POTOMAC MILLS CIR. TO POTOMAC MILLS RD TO OPITZ BLVD TO I-95					0.5
RT. 123 (GORDON BLVD) TRANSIT STATION	39	PUBLIC TRANSIT	NO CONNECTOR	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
SERVED BY AN EXISTING NHS ROUTE					0.0
ROUTE 3 TRANSIT STATION	40	PUBLIC TRANSIT	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
ROUTE 3 (ENTRANCE TO I-95)					1.7
FALMOUTH TRANSIT STATION	41	PUBLIC TRANSIT	NO CONNECTOR	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
SERVED BY AN EXISTING NHS ROUTE					0.0
GARRISONVILLE TRANSIT STATION	42	PUBLIC TRANSIT	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
RT. 684 (ENTRANCE TO RT. 610), RT. 610 (RT. 684 TO I-95)					0.7
STAFFORD TRANSIT STATION	43	PUBLIC TRANSIT	PROPOSED	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
RT. 30 (ENTRANCE TO I-95)					0.1
RT. 123 (HECHINGER LOT) TRANSIT STATION	44	PUBLIC TRANSIT	NO CONNECTOR	PRIMARY	
CONNECTOR(S) DESCRIPTION:					
SERVED BY AN EXISTING NHS ROUTE					0.0
Total Number of Facilities:	44			Totals Miles:	35.3
(ADD) CHARLOTTESVILLE/ALBEMARLE AIRPORT	45	AIRPORT	PROPOSED	PRIMARY	0.5
CONNECTOR(S) DESCRIPTION					
RTE. 649 (ENTRANCE TO RTE 29)					

APPENDIX D

VIRGINIA CONNECTIONS

STRATEGIC PLAN FOR TRANSPORTATION

December 1994

INTRODUCTION

Virginia Connections was initiated in May 1994 by Virginia Secretary of Transportation Robert E. Martínez to develop a vision for the future direction of transportation in the Commonwealth.

Virginia Connections is guided by four themes espoused by the Allen Administration. First, ***Virginia Connections*** seeks to increase citizen ownership of government. Virginians should feel that they own their government, that it exists to serve their needs. Citizen control of Virginia's transportation system will be enhanced by making the transportation planning process more responsive to the needs of passenger and freight transportation users. The second objective is to increase the customer service orientation within state transportation agencies. Virginia will improve the speed and value of the services that state agencies provide to transportation users and create an efficient customer service network to facilitate efficient delivery of services. Third, ***Virginia Connections*** will increase competition in government by providing a series of initiatives to increase private sector involvement in the provision of transportation services. ***Virginia Connections*** promotes activities through which transportation agencies make themselves more competitive and seeks opportunities to take advantage of the strengths of the private sector. Finally, ***Virginia Connections*** strives to change the culture of our transportation workforce, creating an atmosphere in which reinvigorated, high performance employees thrive. Every employee will be empowered to perform at their highest level.

The ***Virginia Connections*** strategic planning effort was guided by seven principles provided by Secretary Martínez. Under the direction of Shirley J. Ybarra, Deputy Secretary of Transportation, working groups were established to focus on the principles outlined by the Secretary. Each group included members from the private sector, from public modal agencies, including the Virginia Department of Transportation (VDOT), the Department of Rail and Public Transportation (DRPT), the Department of Aviation (DOAV), the Department of Motor Vehicles (DMV) and the Virginia Port Authority (VPA). Staff briefing papers are also being developed.

A series of forums was held to engage the public and private sector transportation stakeholders in a dialogue to help define and articulate how that vision could be put into action. The forums, involving about 200 participants, were held across the Commonwealth. Additionally, individuals and organizations provided written comments. Hundreds of ideas and suggestions provided by these participants have been reviewed and summarized by the working groups to help develop this report. Many of the action items included in this report were a direct result of comments received at the forums. A final public meeting, held to provide stakeholders an opportunity to comment on an earlier Interim Report was held in November.

HIGHLIGHTS

- Increase the flexibility and use of Access funds for economic development and determine how eligibility requirements for the Industrial, Rail, Recreational and Airport Access programs can be enhanced.

- An improved process for attracting private financial resources for transportation facilities will be promoted through passage of the Virginia Public-Private Transportation Act of 1995.

- Companion legislation to the proposed Virginia Public-Private Transportation Act of 1995 will be offered to create a revolving fund to improve the Commonwealth's ability to generate interest in public/private ventures.

- "One-stop shopping" will be developed through which motor carriers can secure all registration, licensing, and other requirements of state agencies through a single visit to one location.

- Expand truck route eligibility and reduce the regulatory burdens of motor carriers improving route accessibility.

- An action agenda for reviewing and revising VDOT's secondary road and local street design standards will be developed to promote flexibility.

- A Multimodal Freight Advisory Group comprised of private sector freight carriers will be created by and for the Secretary to advise the Commonwealth Transportation Board, the Virginia Aviation Board, and the Virginia Port Authority Board of Commissioners on issues related to the movement of freight.

- In conjunction with the Secretary of Commerce and Trade, a Task Force will be established to identify possible methods to reduce or eliminate port terminal bottlenecks including the use of technology to facilitate landside access and address modal transfer issues at ports.

- Support legislation modernizing regulations governing automobile dealerships.

- Development of a Geographic Information System (GIS) will be accelerated, with VDOT playing a major role.

VIRGINIA CONNECTIONS
MISSION STATEMENT

Virginia will have a safe, efficient, intermodal transportation system with seamless connections among all modes. The Commonwealth will develop a balanced, environmentally sound transportation system that provides mobility, responds to the market and fosters economic prosperity with a range of viable modal choices. Transportation policies and planning will emphasize the movement of people and goods from origin to final destination rather than mode-specific travel.

PRINCIPLES

- **Intermodalism**
  Improved connectivity among different modes will be fostered to improve the efficiency and effectiveness of the transportation system. A full range of modal alternatives for passengers and freight will be encouraged to provide choice and competition in the marketplace. Strategic investments to improve connectivity among modes will be identified and implemented.

- **Deregulation**
  Regulatory and administrative barriers to the efficient use and development of the transportation system will be identified and removed to enhance productivity. Except where specifically justifiable, state regulatory requirements should not exceed federal requirements.

- **Economic Development**
  Providing a high quality transportation system is critical to attract and retain major employers. Improving the transportation infrastructure is a crucial step to attract major new industries and to secure Virginia's economic future. Strategic investments such as the "Smart Highway" can create centers of economic growth and development.

- **Markets**
  Transportation investment decisions must be based on sound economic principles and be responsive to market needs. Decisions will be measured in terms of the resulting economic development, the reduction in congestion costs, the improvement in mobility and access, and the long-term viability of a project from a market perspective.

- **Privatization**
  The provision of transportation assets and the delivery of transportation services will be enhanced through innovative financing techniques, such as public-private partnerships and privatization initiatives. Private sector solutions to meeting transportation needs must be encouraged. Opportunities to privatize governmental activities will be sought.

- **Freight**
  Freight movement in the Commonwealth will be explicitly considered and facilitated in the planning and development of the transportation system.

- **Technological Leadership & Safety**
  Research and state-of-the-art technology will be utilized to reduce costs and improve productivity and the quality of service. Virginia will lead the research community in the development of innovations and in the application of technology to improve safety and mobility, to increase the capacity of the infrastructure, and to foster economic development.

INTERMODALISM

Improved connectivity among modes will be fostered to improve the efficiency and effectiveness of the transportation system. A full range of modal alternatives for passengers and freight will be encouraged to provide choice and competition in the marketplace. Strategic investments to increase mobility by improving connectivity among modes will be identified and implemented.

BACKGROUND

A critical but often overlooked aspect of the transportation system relates to the connectivity among modes. Transportation planning has generally been directed toward identifying the needs of individual modes; however, providing choices and improving the ease of connections between modes offer opportunities for significant improvements in transportation productivity, thus increasing mobility systemwide.

The movement of freight from origin to final destination is increasingly accomplished through the use of more than one mode. Most freight transfers to trucks before final delivery, making the planning of connections between highways and other modes critical to eliminating intermodal bottlenecks. These transfer points include highway access to truck terminals, air freight terminals, railroad transfer facilities, and ports. The interface between the excellent port facilities in Hampton Roads and the rail system in the state makes the connection between the rail and maritime modes critical to the economic prosperity of the state. Virginia also maintains an intermodal transfer facility, the Virginia Inland Port (VIP), in Front Royal. Dulles Airport has shown significant growth as an intermodal hub for both freight and passenger traffic.

A primary emphasis of passenger intermodalism is improving modal connections between transit systems and other modes. For example, many transit users begin or end their journeys as pedestrians, bicyclists or in automobiles. Park-and-ride facilities provide a critical connection for mass transit commuters using an automobile for a portion of their trip and often are key to guaranteeing high ridership to major transit systems. Addressing passenger needs from an intermodal perspective will help ensure that access to all modes is convenient and available. Long-range intermodal plans will focus on connections among automobile, AMTRAK, VRE, airline and transit passengers.

GOAL: *IDENTIFY OPPORTUNITIES TO ENHANCE STRATEGIC INTERMODAL CONNECTIONS.*

ISSUE: A single inadequate connection in the transportation system will reduce the efficiency of the overall system. To ensure the availability of a full range of modal choices and to improve access, efficiency and throughput of the system, connections among modes must receive special attention.

ACTION PLAN:

- **Conduct a detailed inventory of Virginia's intermodal facilities (including passenger facilities as well as bulk transloading facilities, coal transloads, and automobile loading/unloading ramps) and identify existing and projected bottlenecks at critical access points between modes.**
  Responsibility: VDOT's Transportation Planning Division in cooperation with DRPT, VPA DOAV and Metropolitan Planning Organizations (MPOs)
  Time Frame: October 1, 1995

- **Identify the strategic passenger and freight intermodal corridors in the Commonwealth and needed project improvements along those corridors, including consideration of double-stack railroad lines. Encourage the MPOs to support these projects and incorporate these corridors into their regional transportation plans.**
  Responsibility: VDOT's Transportation Planning Division in cooperation with DRPT, VPA DOAV and MPOs
  Time Frame: July 1, 1996

- **Support the improvement and further development of strategic intermodal centers such as Dulles International Airport, the Ports of Hampton Roads, and the Virginia Inland Port.**

  Dulles International Airport
  - Work to support extension of rail in the Dulles corridor.
  - Support construction of the fourth lane for HOV-2 use on the Dulles Toll Road.
  - Provide for improvements for landside cargo access to Dulles International Airport.
  - Recommend legislation to include Dulles in the entitlements portion of the Virginia Aviation Fund.

  Responsibility: VDOT, DOAV and DRPT
  Time Frame: Ongoing

Ports of Hampton Roads

- Support the Ports of Hampton Roads strategic planning process.
- Advance critical rail grade separation projects near the Ports of Hampton Roads to eliminate modal conflicts and expedite the movement of freight.
- In conjunction with the Secretary of Commerce and Trade, facilitate a public-private sector meeting to address critical issues related to port terminal bottlenecks. Participants in the meeting should include representatives of motor carriers, steamship lines, railroads, ports, VDOT, DRPT, the State Police, and local governments.
- Appoint a public-private work group to study long-range solutions to non-roadworthy chassis issues.
- Work to obtain funding for the Pinner's Point Interchange project.
  Responsibility: VDOT and DRPT in cooperation with the Secretariat of Commerce and Trade
  Time Frame: Ongoing

Virginia Inland Port

- Provide input to the assessment of the VIP's market position compared to its regional and national competitors. Utilize the knowledge of Virginia's advantages and disadvantages to market the Virginia Inland Port most effectively. Consider focusing promotion of the VIP as a truck/rail intermodal terminal for domestic movements.
  Responsibility: Secretariats of Commerce and Trade and Transportation, VDOT and DRPT
  Time Frame: October 1, 1995

- **Provide technical assistance grants to localities to employ new technologies designed to facilitate connections among mass transit services. In particular, encourage the development of Automatic Vehicle Identification (AVI) technology and so-called "Smart" cards that would allow passengers to pay for travel on various transit systems with one card.**
  Responsibility: DRPT
  Time Frame: Ongoing

GOAL: ***DEVELOP AND IMPROVE STATE-LEVEL INTERMODAL PLANNING AND ENCOURAGE INTERMODAL PLANNING EFFORTS OF REGIONAL AGENCIES.***

ISSUE: Because planning for the different modes of transportation traditionally has been conducted through separate processes, interface between the modes is sometimes difficult. Virginia will provide assistance to local governments and MPOs so that they can make the transition from mode specific to multimodal and intermodal transportation planning. Similarly, the Transportation

Secretariat will work to encourage future federal legislation to focus on multimodal solutions to transportation problems.

ACTION PLAN:

- **Develop and implement a statewide long-range multimodal plan, considering both intermodal freight and passenger needs.**
  Responsibility: VDOT's Transportation Planning Division in cooperation with DRPT, VPA and DOAV
  Time Frame: Policy Plan completed January 1, 1995

- **Encourage regional planning agencies to consider both intermodal freight and passenger needs in transportation planning.**
  Responsibility: VDOT's Transportation Planning Division in cooperation with DRPT, VPA and DOAV
  Time Frame: Ongoing

- **Recommend that representation on the MPOs be broadened to include all modes and freight groups.**
  Responsibility: Secretary of Transportation
  Time Frame: Ongoing

- **Enhance inter-agency efforts to coordinate the planning and development of intermodal facilities such as Park and Ride lots adjacent to mass transit services.**
  Responsibility: DRPT and VDOT
  Time Frame: Ongoing

- **Play a leadership role in the development of the National Transportation System (NTS) and the Intermodal Surface Transportation Efficiency Act (ISTEA) II.**
  Responsibility: Secretary of Transportation
  Time Frame: Ongoing

- **Improve communication among modes by establishing and improving institutional relationships between statewide, regional and local modal organizations.**
  Responsibility: VDOT in cooperation with DRPT, VPA, DOAV and MPOs
  Time Frame: Ongoing

DEREGULATION

Regulatory and administrative barriers to the efficient use and development of the transportation system will be identified and removed to enhance productivity. Except where specifically justifiable, state regulatory requirements should not exceed federal requirements.

BACKGROUND

Regulations generally derive from the need to ensure public safety or to protect other public interests. As circumstances change, however, regulations often remain in place although they no longer serve their originally intended purpose. Over time, administrative procedures for implementing regulations grow incrementally, adding to the cost of regulatory compliance.

Deregulation is a top priority of the Allen Administration. Governor Allen's Executive Order Thirteen (1994) requires all state agencies to review all proposed and revised regulations. Furthermore, all proposed regulations that go into effect after January 1, 1995, must be accompanied by an economic impact statement. This action is premised on the fact that regulations may result in higher prices for consumers without producing benefits to society to offset these costs.

In Virginia, ten agencies are responsible for the promulgation and enforcement of motor carrier regulations including the State Corporation Commission (SCC), DMV, the State Police, VDOT, and the Department of Environmental Quality (DEQ). The plethora of regulations and agencies involved makes compliance costly and interferes with the efficiency of the motor carrier industry, consequently impeding the growth of the Commonwealth's economy.

Congress recently enacted legislation that substantially deregulates intrastate trucking, effective January 1, 1995. ***Virginia Connections*** will review the laws and procedures to ensure that no requirements exceeding those established by the federal government are dictated by the government of the Commonwealth of Virginia except where specifically necessary.

Unnecessary regulations hamper not only private sector transportation providers, but constrain local government activity as well. ***Virginia Connections*** will seek opportunities to provide flexibility to localities to meet varying regional needs.

GOAL: *REDUCE THE REGULATORY BURDEN ON MOTOR CARRIERS.*

ISSUE: Motor carriers operating in the Commonwealth are required to comply with a broad array of tax, regulatory and other requirements. This means contacting numerous agencies at different locations to meet carrier and vehicle credential requirements. "One-stop shopping" would enable a motor carrier to comply with the Commonwealth's highway use/commercial vehicle requirements at a single point of contact and create an efficient customer service network. Joining the International Fuel Tax Agreement (IFTA) would standardize fuel tax reporting between Virginia and the other states. Other regulations impede motor carrier operation; they will be reviewed to find additional opportunities for deregulation.

ACTION PLAN:

- **Implement a "one-stop shopping" program through which motor carriers can secure necessary registration, licensing, and other requirements of all state agencies in a single visit to one location. Use existing personnel to establish a motor carriers' unit.**
  Responsibility: DMV, VDOT, SCC and State Police and Virginia Trucking Association (VTA)
  Time Frame: Implementation in 1996

- **Join the International Fuel Tax Agreement**
  Responsibility: DMV in cooperation with SCC and VTA
  Time Frame: Action agenda by January 1, 1995, with implementation by January 1, 1996

- **Eliminate trucking regulations which are incompatible with the federal deregulation of intrastate trucking.**
  Responsibility: DMV in cooperation with VDOT, SCC and VTA
  Time Frame: Ongoing

- **Evaluate feasibility of allowing truckers to use Practical Route Miles instead of Actual Route Miles when accounting for miles traveled within the state.**
  Responsibility: DMV in cooperation with VDOT, SCC and VTA
  Time Frame: Report by Summer, 1995

- **Expand Surface Transportation Assistance Act (STAA) route eligibility and reduce the regulatory burden of truckers. The Commonwealth Transportation Board (CTB) will establish a list of restricted routes.**
  Responsibility: CTB with input from the Virginia Association of Counties (VACO), Virginia Municipal League (VML) and VTA
  Time Frame: Implement by Summer, 1995

- **Recommend legislation to treat containerized cargo bound to or from a seaport as irreducible loads eligible for permitting.**
  Responsibility: VDOT
  Time Frame: Legislation introduced 1995 Session.

- **Evaluate feasibility of giving motor carriers the option of permanent trailer registration to reduce administrative burdens.**
  Responsibility: DMV and State Police
  Time Frame: Report by Summer, 1995

GOAL: *REDUCE OR ELIMINATE OBSOLETE STATE LAWS GOVERNING TRANSPORTATION PROVIDERS.*

ISSUE: Regulations can affect the delivery of services, hamper competitive markets and limit the availability of transportation options. For example, many restrictions placed on the railroad industry have existed since the turn of the century and are no longer necessary. Another area where regulations and laws impede competitive markets is auto dealerships. Opportunities to reduce regulatory burdens on this industry will be sought.

ACTION PLAN:

- **Establish a public-private Task Force to review laws and regulations governing railroads to simplify regulations, remove archaic language, and respond to changes in federal railroad regulations. No law or regulation should exceed the requirements set by the federal government except where specifically necessary.**
  Responsibility: Task Force established 1995
  Time Frame: Legislation drafted for 1996 Session

- **Support legislation modernizing regulations governing automobile dealerships.**
  Responsibility: Auto dealer associations and DMV
  Time Frame: Legislation introduced 1995 Session

- **Establish a Task Force including local transit operators, industry experts, and DRPT to identify and recommend actions to eliminate barriers to transit privatization and encourage flexibility.**
  Responsibility: Task Force
  Time Frame: Secretary will appoint Task Force, report completed by December 1995

GOAL: *REDUCE OR ELIMINATE UNNECESSARY AND DUPLICATIVE ENVIRONMENTAL REGULATIONS.*

ISSUE: Environmental regulations have increased dramatically in the past 20 years. Although the health of Virginia's environment must be sustained, such efforts must be balanced with our economic well-being. In many instances, regulations imposed by Virginia on motor and rail carriers and transportation agencies are duplicative of federal requirements. ***Virginia Connections*** will seek opportunities to eliminate onerous environmental requirements and simplify reporting procedures.

ACTION PLAN:

- **Eliminate unnecessary requirements for special conditions on Corps of Engineers' nationwide permits by working with the Department of Environmental Quality (DEQ) to achieve the maximum benefit in the use of those permits.**
  Responsibility: VDOT in cooperation with DEQ
  Time Frame: January 1, 1995

- **Revise DEQ's wetlands monitoring requirements to mirror those set by the Corps of Engineers and develop wetlands banking policy in cooperation with DEQ.**
  Responsibility: VDOT in cooperation with DEQ
  Time Frame: January 1, 1995

- **Streamline operations and create efficiencies in programs administered by DEQ. VDOT is working with DEQ to eliminate unnecessary requirements in all programs, including stormwater runoff, underground storage tanks, and water quality permit fees.**
  Responsibility: VDOT in cooperation with DEQ
  Time Frame: Ongoing

- **Streamline operations and increase efficiency at Department of Historic Resources (DHR) by implementing an electronic information system. Execute an agreement that authorizes VDOT professional staff to undertake project reviews to meet Federal Highway Administration (FHWA) criteria for the categorical level environmental document. Agreement allows VDOT to review its own projects, reporting to DHR on a quarterly basis.**
  Responsibility: VDOT in cooperation with DHR
  Time Frame: Ongoing

GOAL: *REVISE POLICIES AND PROCEDURES TO IMPROVE COMMUNICATION WITH AND RESPONSIVENESS TO LOCAL GOVERNMENTS.*

ISSUE: In order for rural roads and county subdivision streets to be accepted into the state system, VDOT requires that they be designed and constructed to a prescribed set of standards. Local governments have indicated that the design standards used by VDOT are not flexible enough to meet the changing needs of today's neighborhoods and communities and the wide variation in road functions. Greater flexibility would help stretch available transportation dollars.

ACTION PLAN:

- **Review VDOT's project design standards for secondary roads to find opportunities to reduce unnecessary requirements and allow for flexibility to meet the local needs of communities.**
  Responsibility: VDOT's Location and Design and Secondary Roads Divisions in cooperation with local governments, development community and citizens
  Time Frame: January 1995

- **Revise existing regulations enumerating standards for local subdivision streets.**
  Responsibility: VDOT in cooperation with local governments, development community and citizens.
  Time Frame: January 1996

- **Complete a review of VDOT's design standards for scenic and historic roadways and establish procedures to ensure their enhancement.**
  Responsibility: VDOT in cooperation with local governments
  Time Frame: January 1995

ECONOMIC DEVELOPMENT & MARKETS

Providing a high quality transportation system is critical to attract and retain major employers. Improving the transportation infrastructure is a crucial step to attract major new industries and to secure Virginia's economic future. Transportation investment decisions must be responsive to market needs and be based on sound economic principles. Strategic investments such as the "Smart Highway" can create centers of economic growth and development.

BACKGROUND

Virginia, because of its strategic location on America's East Coast, is a transportation crossroads for the United States and for North America. The Commonwealth's innovative efforts to meet its transportation needs have earned national recognition. To continue moving toward a robust economic future, Virginia must base its transportation investment decisions on sound economic principles. This means that the Commonwealth must use comprehensive measures of economic costs and benefits to prioritize its transportation planning and investment options.

Virginia's political heritage and the historical success of market economies suggest that the state would derive the most impact from its transportation program if it could harness market forces to guide transportation investments. A free competitive market meets customers' needs, welcomes technological innovation, and creates a disaggregated decision-making process in which investors respond to prices that they individually cannot manipulate. The market, literally composed of millions of individual decision makers, ultimately provides for the best allocation of resources.

VDOT and DRPT administer categorical grant programs designed to spur economic growth by providing transportation access to new and expanding industries. These programs include the Rail, Industrial, Airport and Recreational Access programs.

Strategic investments in transportation also can create economic development through the creation of new industries. Virginia has committed $10 million toward the development of a "Smart Highway" and to participate as a member of a consortium of private investors which include General Motors, Martin Marietta, Bechtel and others in the development of Automated Highway System (AHS) technologies.

Economic development efforts initiated under the rubric of ***Virginia Connections*** support the broad, positive thrust of the Governor's ***Opportunity Virginia*** package, produced under the leadership of the Secretariat of Commerce and Trade.

GOAL: *ENHANCE TRANSPORTATION DECISION-MAKING PROCESSES TO MAKE TRANSPORTATION INVESTMENTS MORE RESPONSIVE TO THE COMMONWEALTH'S ECONOMIC DEVELOPMENT NEEDS.*

ISSUE: Strategic investments in transportation can spur economic expansion. Transportation investment decisions must be made with an understanding of economic development opportunities. The Transportation Secretariat will expand opportunities to involve local governments, the private sector and the Department of Economic Development in the transportation decision-making process.

ACTION PLAN:

- **Increase the flexibility in the use of Access funds for economic development.**
  - Include Budget Bill amendment to increase the flexibility and transferability of monies among existing (Industrial, Rail, & Airport) Access funds.
  - Evaluate the eligibility requirements of the Industrial Access Program, including projects related to agribusiness and other high employment businesses.
  - Reduce the time frame associated with obtaining Access funds by examining the feasibility of allowing local governments to utilize advanced construction for access projects.
  - Consider developing a Transportation Development Fund, from existing sources, to allow for timely implementation of transportation projects promoting economic development. Evaluate creation of a revolving fund that would enable projects to begin faster than normal funding procedures permit.

  Responsibility: Task Force
  Time Frame: Task Force appointed by December 1994

- **Appoint a contact to coordinate major transportation planning decisions with the Department of Commerce and Trade's economic development planning efforts.**
  Responsibility: VDOT
  Time Frame: For implementation in FY 1996

- **Determine economic development criteria and how they can be used in the selection of projects for funding.**
  Responsibility: Economic Development and Markets working group
  Time Frame: Report by July 1, 1995

- **Promote transportation development initiatives such as the proposed Gateway Airport and implement appropriate next steps, such as site selection.**
  Responsibility: DOAV in cooperation with VDOT
  Time Frame: 1995

- **Support the financing and completion of the Route 58 Corridor Development.**
  Responsibility: VDOT
  Time Frame: Ongoing

GOAL: *CONTINUE THE COMMONWEALTH'S COMMITMENT TO MAINTAIN THE QUALITY OF THE EXISTING TRANSPORTATION INFRASTRUCTURE.*

ISSUE: Virginia's existing transportation infrastructure, whose replacement value is in the billions of dollars, makes an enormous and indispensable contribution to economic productivity. Expenditures for highway maintenance are projected to exceed $750 million in FY 1995. As our infrastructure ages and costs increase, it is vital that infrastructure maintenance funds are directed toward the greatest needs. ISTEA, the federal transportation legislation, requires the development of six management systems to encourage the optimal use of transportation dollars.

ACTION PLAN:

- **Develop the six ISTEA management systems.**
  Responsibility: VDOT, DRPT, DMV and MPOs
  Time Frame: Varying among the six systems. Most must be fully operational by October 1996

- **Develop an integrated maintenance management system (IMMS) that will provide an efficient and uniform platform for integrating existing and new systems. The IMMS will support decision-making based upon inventory, condition, and life-cycle cost analysis. Initial systems to be integrated include the Pavement Management System, Bridge Management System, and Maintenance Management System.**
  Responsibility: VDOT's Maintenance Division
  Time Frame: Full implementation by 1998

GOAL: *MAKE TRANSPORTATION INVESTMENTS THAT MAXIMIZE THE POTENTIAL OF VIRGINIA'S TOURISM RESOURCES AND PROMOTE ECONOMIC GROWTH.*

ISSUE: Tourism is one of the largest industries in Virginia. In 1992, 158,000 jobs were supported by travel spending, and domestic travelers' expenditures in Virginia were $8.6 billion. An adequate

transportation infrastructure and appropriate access to these attractions are critical to retaining our status as a major tourism state.

ACTION PLAN:

- **Maximize the economic development impact of the Transportation Enhancements Program by developing project selection criteria that focus on tourism and other economic development opportunities.**
  Responsibility: Commonwealth Transportation Board Environmental and Human Resources Committee
  Time Frame: Report by March 1995

- **Identify existing and potentially significant tourism corridors and examine the feasibility of supporting tourism-related transportation improvements such as the recently approved Lee's Retreat project.**
  Responsibility: VDOT and Division of Tourism
  Time Frame: Report by January 1996

- **Appoint a contact to coordinate transportation planning efforts with the state Division of Tourism.**
  Responsibility: VDOT
  Time Frame: For implementation in FY 1996

- **Develop a Virginia Byways Map that features highway-related tourist attractions.**
  Responsibility: VDOT
  Time Frame: December 1994

GOAL: *ENCOURAGE INVESTMENTS IN EMERGING TRANSPORTATION TECHNOLOGIES THAT CAN CREATE NEW CENTERS OF ECONOMIC DEVELOPMENT ACTIVITY.*

ISSUE: An emerging industry involves the development and deployment of Intelligent Vehicle Transportation System (ITS) technologies. Virginia is at the forefront of this growth industry with its involvement in the development of a six-mile "Smart Highway" in the Blacksburg area. The Commonwealth will make and support transportation investments that can create new centers of economic activity, recognizing that transportation generates jobs and income.

ACTION PLAN:

- **Support the "Smart Highway" project currently under development and the adaptation of "Smart" technologies and their compatibility for other forms and modes of transportation.**
  Responsibility: VDOT
  Time Frame: Ongoing

- **Support Intelligent Transportation Systems for Virginia (ITSVA).**
  Responsibility: VDOT, DRPT and DOAV
  Time Frame: Ongoing

PRIVATIZATION

The provision of transportation assets and the delivery of transportation services will be enhanced through innovative financing techniques, such as public-private partnerships and privatization initiatives. Private sector solutions to meeting transportation needs must be encouraged. Opportunities to privatize governmental activities will be sought.

BACKGROUND

Privatization is the act of reducing the government's role, or increasing the private sector's role, in the provision of goods and services. Privatization describes a range of options from contracting out state services, such as road maintenance, to public-private partnerships for infrastructure finance and construction.

Legislation passed recently at both the federal and state levels (including Virginia's Qualifying Transportation Facilities Act of 1994) has expanded opportunities for private financing of transportation projects. State-of-the-art public-private legislation was passed last year in Washington state. Washington's legislation is extremely flexible; it allows private firms to propose projects for privatization. In contrast, most other states that allow privatization select the projects themselves, and then solicit bids from private investors. Washington state selected six projects worth a total of $2.1 billion (requiring only $166 million in state funding) following their initial solicitation. In comparison, Virginia's annual highway construction budget is one billion dollars. A flexible approach, similar to Washington's, will be essential to compete nationally and internationally for the limited private sector financial resources available for infrastructure development.

Contracting with the private sector occurs to some extent in all of Virginia's transportation agencies. The Governor's Commission on Government Reform (the Strike Force) examined privatization of government services in all state agencies. In the transportation sector, transit service is one area that lends itself to contracting. At least half the public transit agencies that serve urbanized areas in the Commonwealth employ private contract management services in some way.

GOAL: ***ESTABLISH A FRAMEWORK THAT PROVIDES GREATER OPPORTUNITIES FOR PRIVATE SECTOR FINANCING AND DEVELOPMENT OF TRANSPORTATION PROJECTS.***

ISSUE: Public sector resources for transportation are limited. By utilizing private sector resources to finance transportation infrastructure, public sector funds are freed-up for other projects. Maximizing private sector involvement in infrastructure development results in an expanded

transportation pie. The public-private approach suggested here is intended to supplement -- not supplant -- public efforts in transportation. Historically, Virginia has been at the forefront, nationally, passing enabling legislation such as the Highway Corporation Act of 1988 and the Qualifying Transportation Facilities Act of 1994. The effective date of this latter bill was delayed until July 1, 1995, to allow for modifications to maximize opportunities for privatization (manifested now in the Virginia Public-Private Transportation Act of 1995).

ACTION PLAN:

- **Secure enactment of the Virginia Public-Private Transportation Act of 1995 to improve Virginia's ability to compete for private financial resources for transportation facilities.**
  - Establish criteria with which to evaluate privatization project proposals.
  - Develop a solicitation and an implementation process for the Public-Private Transportation Act of 1995.

  Responsibility: A multi-agency work group will be created to develop the solicitation and evaluation process
  Time Frame: Legislation introduced 1995 Session, process operational by effective date

- **Propose a companion piece of legislation to establish a revolving fund to enhance the Commonwealth's ability to participate in public-private partnerships under the state's jurisdiction.**
  Responsibility: Multi-agency work group
  Time Frame: Legislation introduced 1995 Session

GOAL: *IDENTIFY AND PURSUE OPPORTUNITIES TO CONTRACT SERVICES WITH THE PRIVATE SECTOR.*

ISSUE: The Allen Administration is seeking opportunities to increase competitiveness throughout state government. The agencies in the Transportation Secretariat will implement Strike Force recommendations to ensure that services are provided in the most economical and efficient manner.

ACTION PLAN:

- **Utilize Value Engineering to identify transportation activities and functions that can best be performed by the private sector. Initially, the feasibility of privatizing road maintenance, project design, management of state-owned passenger vehicles, and equipment repair and maintenance should be pursued.**
  Responsibility: VDOT
  Time Frame: Ongoing

- **Identify DMV activities and functions that can best be performed by the private sector. Initially, the feasibility of privatizing decal production, mail services, vehicle maintenance and repair, inventory stocking, and security should be pursued.**
  Responsibility: DMV
  Time Frame: Ongoing

- **Contract with private vendors for the repair of state-owned air navigational aid equipment.**
  Responsibility: DOAV
  Time Frame: Ongoing

- **Contract with private vendors for automated weather observation and dissemination.**
  Responsibility: DOAV
  Time Frame: Ongoing

- **Evaluate opportunities to pool agency resources.**
  Responsibility: Joint effort conducted by all agencies in the Transportation Secretariat
  Time Frame: Ongoing

FREIGHT

Freight movement in the Commonwealth will be explicitly considered and facilitated in the planning and development of the transportation system.

BACKGROUND

Virginia's location on the Eastern Seaboard makes it an ideal base from which to serve the consumer and industrial markets of the densely populated Northern and Eastern urban centers, and the expanding markets of the Southeast. Approximately one-half of the nation's population and manufacturing activity, and five of its ten largest population centers, are located within a 500-mile radius of Richmond. A 750-mile radius captures 60 percent of the nation's population and two-thirds of its manufacturing employment.

Virginia's strategic location along the I-95, I-64, and I-81 corridors has allowed motor carriers who move domestic trailer loads and less than truckload (LTL) shipments to provide excellent service to all business segments within the region.

Virginia is served by an extensive rail network, with two of the nation's largest railroads headquartered in the state: the CSX Corporation in Richmond and the Norfolk Southern Corporation in Norfolk. Virginia's port complex includes one of the finest natural harbors in the world at Hampton Roads.

For Virginia to remain competitive in attracting new and expanding business interests, and continuing economic growth, its transportation network must facilitate the rapid and economical movement of raw materials and finished products.

GOAL: *INCLUDE CONSIDERATION OF FREIGHT AND ITS MOVEMENT IN ALL TRANSPORTATION PLANNING PROCESSES AND PLACE AN EMPHASIS ON MULTIMODAL SOLUTIONS.*

ISSUE: Traditionally, freight needs have been overshadowed by passenger needs in the planning process and decisions made on a mode-specific basis. Virginia will expand its efforts to consider the special needs of freight shippers as part of providing a world-class transportation system.

ACTION PLAN:

- **Create a Multimodal Freight Advisory Group to the Secretary comprised of private sector freight carriers of all modes. This group will be available to advise the Commonwealth Transportation Board, the Virginia Aviation Board, the Port**

Authority Board of Commissioners and MPOs on transportation issues and concerns related to the movement of freight. The Secretary will designate staff to support the efforts of the group.
Responsibility: Multimodal Freight Advisory Group
Time Frame: Secretary will appoint Advisory Group by January 1, 1995

- **Charge the Multimodal Freight Advisory Group with evaluating the benefits of and obstacles to acquiring and using freight data to enhance the transportation planning process. Assess whether meaningful data can be collected without sacrificing the confidentiality of proprietary information.**
Responsibility: Multimodal Freight Advisory Group
Time Frame: Evaluation conducted 1995

GOAL: ***REMOVE UNNECESSARY BURDENS ON FREIGHT MOVERS AND SHIPPERS.***
(SEE DEREGULATION)

GOAL: ***INCREASE THE AVAILABILITY AND FLEXIBILITY OF FUNDS FOR FREIGHT NEEDS.***

ISSUE: Because freight movement frequently spans multiple modes of transportation, financing of freight system improvements is often precluded because projects cross lines between different funding programs. Virginia will support flexibility of fund use and seek innovative financing techniques to support critical freight needs.

ACTION PLAN:

- **Review federal laws, including ISTEA, and identify exclusions in the law, to ensure that Virginia utilizes all available funds to improve freight linkages.**
Responsibility: VDOT's Programming and Scheduling Division
Time Frame: January 1995

- **Review penalties assessed on overweight trucks, including base charges for liquidated damages. Any proposed increase in revenues resulting from the review would be used for improvements needed to support the expansion of the STAA routes.**
Responsibility: VDOT
Time Frame: Review initiated 1994

- **Congress provides grants for the improvement of smaller rail facilities under the Federal Railroad Administration's Local Rail Freight Assistance Program. The fund is discretionary; to be eligible for funding a benefit-cost analysis must be undertaken on the proposed projects. Only projects with a benefit-cost of greater than one may be considered. Virginia will pursue additional federal monies from the discretionary local rail assistance fund for economic development and retention of businesses.**
  Responsibility: DRPT
  Time Frame: Annually

TECHNOLOGY AND SAFETY

Research and state-of-the-art technology will be utilized to increase safety and improve productivity and the quality of service. Virginia will lead the research community in the development of innovations and in the application of technology to improve safety and mobility, to increase the capacity of the infrastructure, and to foster economic development.

BACKGROUND

Safety has been, and will continue to be, a high priority in Virginia's transportation system. Transportation facilities in Virginia are among the safest in the nation. Since 1980 automobile fatalities in Virginia have been reduced by 16 percent, while over the same period, vehicle miles of travel have increased by 70 percent. In 1991, Hampton Roads was ranked as the safest of 23 deep-draft U.S. ports in a study conducted by the U.S. Coast Guard.

Technology plays a key role in making the transportation system safer and improving its throughput and overall effectiveness. Virginia has been a national leader in the application of advanced technology to safety concerns. For example, traffic management systems have been established to monitor conditions on highly congested roadways in order to identify incidents quickly and provide information to motorists on current conditions and alternate routes. The state has initiated a number of other innovative safety programs, including a habitual offender pilot program, an automatic truck rollover warning system, and automated weather observation systems. Safety initiatives to meet future challenges include development of the Safety Management System, in which all safety data are consolidated to support comprehensive decision-making.

Recognizing the need to remain at the forefront of transportation technology, Virginia has invested in nationally recognized transportation research programs. For example, VDOT's Transportation Research Council (VTRC) has aggressively applied new technology to solving transportation problems for nearly 50 years. In addition, the VTRC works closely with Virginia Polytechnic Institute and State University and George Mason University, both of which have extensive Intelligent Vehicle Highway System research programs. The Virginia International Terminals is the only terminal operating company in the U.S. with its own research and development division.

GOAL: *VIRGINIA'S TRANSPORTATION AGENCIES WILL UTILIZE ADVANCED RESEARCH AND TECHNOLOGY TO IMPROVE PRODUCTIVITY AND EFFICIENCY, CREATE SMOOTH INTERMODAL CONNECTIONS AND REDUCE THE LIFE-CYCLE COSTS OF BUILDING AND MAINTAINING TRANSPORTATION FACILITIES.*

ISSUE: Technology provides a means to increase throughput and capacity without denigrating safety. Virginia will continue to invest heavily in IVHS (referred to increasingly--and more appropriately--as ITS), Geographic Information Systems and other technologies that help provide for improved mobility of passengers and freight.

ACTION PLAN:

- **Accelerate implementation of a GIS with VDOT playing a major role. The Commonwealth will develop comprehensive and accurate transportation network mapping through GIS applications to support real-time routing analysis and other Intelligent Transportation technologies.**
  Responsibility: VDOT
  Time Frame: 1995

- **Ideally, state procurement laws and procedures are designed to attempt to ensure the provision of goods and services at the lowest cost. Traditionally, cost has only considered funds needed initially to acquire the goods. Newer structures, materials, and systems have evolved which have relatively high initial acquisition costs, but require lower operation and maintenance funding through their service life. Virginia procurement laws and procedures should be thoroughly analyzed for opportunities to consider life-cycle costs fully, particularly of new technology.**
  Responsibility: VDOT's Construction and Administrative Services Divisions, the Department of General Services (DGS) and the Office of the Attorney General
  Time Frame: Recommendations developed by October 1995

- **Electronic clearance of commercial vehicles promises greatly to improve the efficiency of freight movement. To prepare fully for the deployment of automatic vehicle identification (AVI) infrastructure, Virginia will aggressively move to consolidate motor carrier credentials. The database will allow Virginia to be fully prepared for electronic clearance once the infrastructure is deployed on a regional basis.**
  Responsibility: DMV in cooperation with VDOT and SCC
  Time Frame: Ongoing

- **Support the efforts of the I-95 Corridor Coalition and encourage coordination among the Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials (AASHTO), the I-95 Corridor Coalition, the**

Commercial Vehicle Operators Consortia, the Commercial Motor Vehicle Safety Association and neighboring states to implement new freight technologies. Automatic vehicle identification, weigh-in-motion and database management systems can improve freight movement on the interstate highway network.
Responsibility: VDOT and State Police
Time Frame: Ongoing

GOAL: ***THE COMMONWEALTH WILL DIRECT RESOURCES TO TECHNOLOGIES THAT REDUCE CONGESTION, PROVIDE IMPROVED TRAVELER INFORMATION, AND REDUCE THE COST OF MOVING TRAVELERS FROM POINT OF ORIGIN TO POINT OF FINAL DESTINATION.***

ISSUE: Traffic on Virginia's roads has increased dramatically; vehicle miles of travel (VMT) more than doubled between 1970 and 1990. There is a limit to the extent to which the Commonwealth can expand its physical infrastructure for transportation. Virginia will utilize new technologies to increase the capacity of our existing systems.

ACTION PLAN:

- **Work with Intelligent Transportation Systems for Virginia (ITSVA) to develop an aggressive IVHS Tactical Plan, based on the goals and objectives identified in the IVHS Strategic Plan. Elements of this plan should then be incorporated into the state's six-year improvement program.**
  Responsibility: VDOT's Traffic Engineering Division and Transportation Research Council
  Time Frame: Report in 1995, efforts ongoing

- **Develop and deploy a statewide traveler information system. This system will support incident and congestion management, improve the state's ability to relay important safety messages to travelers, and promote tourism within the state.**
  Responsibility: VDOT's Emergency Operations Center, Traffic Engineering Division and the Division of Tourism
  Time Frame: Ongoing

- **Promote the development of additional private sector telecommuting centers in Virginia's congested urban areas to reduce commuter travel during peak periods. These centers could be modeled after centers recently established in the Northern Virginia area.**
  Responsibility: Secretary of Transportation and Secretary of Commerce and Trade
  Time Frame: Ongoing

GOAL: *THE COMMONWEALTH WILL PROMOTE THE USE OF NEW AND EXISTING TECHNOLOGIES TO ENHANCE CUSTOMER SERVICE AND STREAMLINE OPERATIONS.*

ISSUE: Virginia must ensure that state agencies take full advantage of existing technologies to improve the efficiency and effectiveness of government. Virginia's transportation agencies will direct efforts toward updating information system capabilities and integrating new technologies as they emerge.

ACTION PLAN:

- **Utilize automated customer service outlets such as kiosks or automatic teller machines (ATMs) to provide DMV services at more convenient locations thereby reducing the burdens on the branch offices. Additionally, ATM services can be provided at branch offices so that customers can conduct transactions after offices have closed.**
  Responsibility: DMV
  Time Frame: December 1996

- **Streamline operations and enhance customer service by piloting a program with two lending institutions to record liens electronically and not issue paper titles with liens. Evaluate the pilot project and expand, if successful.**
  Responsibility: DMV
  Time Frame: April 1, 1996

- **Develop a process and implement procedures for automated fleet renewal through which corporations with large vehicle fleets can electronically transmit data necessary to title and register their Virginia fleets.**
  Responsibility: DMV
  Time Frame: Pilot project completed April 1, 1995

- **Implement a real-time data link with the DEQ and private emissions inspection stations to ensure that motor vehicle registrations in Northern Virginia, Richmond, and possibly Hampton Roads are appropriately based on a vehicle passing or failing a federally required emissions test.**
  Responsibility: DMV
  Time Frame: January 1, 1996

- **Continue the establishment of electronic transmission of driver conviction data from the Supreme Court to DMV.**
  Responsibility: DMV
  Time Frame: January 1, 1995

- **Implement PC-based automated driver licensing knowledge testing in 23 branch offices to enhance testing security and streamline operations.**
  Responsibility: DMV
  Time Frame: January 1, 1995

- **Provide self-service touch-tone system whereby customers could conduct vehicle registration and/or customer service center transactions.**
  Responsibility: DMV
  Time Frame: November 1995

GOAL: ***THE COMMONWEALTH WILL MAKE SAFETY A CORNERSTONE OF ITS TRANSPORTATION SYSTEM AND EMPLOY EVERY REASONABLE MEANS TO ENSURE THAT RISKS TO TRAVELERS ARE MINIMIZED, REGARDLESS OF THE MODE BY WHICH THEY TRAVEL.***

ISSUE: Safety has always been a number one concern of those who provide transportation. The travelling public and the shipper community must remain confident in the continued safety of our transportation systems.

ACTION PLAN:

- **Aggressively attack the safety hazards created by high-risk drivers by developing and implementing programs to identify, monitor and remediate high-risk drivers. Young drivers, substance abusers, medically impaired drivers, elderly drivers and habitual traffic offenders will be targeted. Countermeasures will be developed for each group according to the specific risk-producing behavior involved.**
  Responsibility: DMV
  Time Frame: Initiate efforts January 1995. Early program initiatives in place by January 1996

- **Design and implement a Safety Management System (SMS); integrate the information systems required for good safety management with data systems necessary to support the other management systems; and achieve interim stages and implementation in compliance with federal regulations.**
  Responsibility: VDOT and DMV
  Time Frame: Work plan, January 1995; SMS underway October 1995; fully operational October 1996.

- **Support research efforts to reduce accidents in rail corridors. Many accidents occur at rail crossings when vehicles attempt to cross the tracks in front of an oncoming train. Research is underway to develop improved barriers and signing as well as train detection systems.**
  Responsibility: VDOT and DRPT
  Time Frame: 1995

- **Pursue additional federal grants for grade crossing elimination and improvements.**
  Responsibility: VDOT and DRPT
  Time Frame: Ongoing

- **Review the new federal grade crossing action plan and identify action items for possible implementation by the Commonwealth.**
  Responsibility: VDOT and DRPT
  Time Frame: 1995

- **Upgrade and expand Virginia's air navigational aids to include the global positioning system (GPS) for enhanced safety and efficiency. GPS will reduce the cost to the Commonwealth for land-based equipment and maintenance. GPS also will enable approach procedures to be developed for airports that were not able to utilize land-based equipment because of cost or facility restrictions. GPS could allow for increased use of those airports during inclement weather.**
  Responsibility: DOAV
  Time Frame: 1995

- **Upgrade and expand Virginia's airport weather dissemination system to take advantage of satellite-based technology for enhanced safety. This would include additional weathermation units and automated weather observation systems based at existing airports. These systems should be satellite linked to disseminate weather information nationally. This development could enhance safety by notifying pilots of conditions prior to departure.**
  Responsibility: DOAV
  Time Frame: Ongoing

THE NEXT STEP

Transportation is vital to our economy and quality of life. It is the mechanism for the safe and efficient local, regional and international movement of people and goods. It provides access to economic opportunities and the vast cultural, educational and recreational resources of our Commonwealth.

The Commonwealth must have a vision that provides for a coordinated, comprehensive transportation system, effectively integrating all modes (rail, aviation, maritime, highways and transit) and establishing efficient connections among them. Transportation initiatives must be system-oriented and non-mode specific and derive from a vision that reflects a balance of benefits and costs and emphasizes mobility for people and goods from origin through final destination.

The overarching goal of the strategic plan is to provide for a superior transportation system that has, as its first objective, ensuring the mobility of the citizens of the Commonwealth. Although the Commonwealth's transportation improvement efforts are guided by the vision set forth by Secretary Martinez, the seven principles are not the only axioms steering Virginia's transportation decisions.

The action items set forth in this report represent a first step in the implementation of a new vision for transportation in the Commonwealth. ***Virginia Connections*** is not a one-time effort, but an ongoing attempt to refocus Virginia's transportation investments in preparation for the 21st Century.

Each of the agencies in the Transportation Secretariat -- VDOT, DMV, DRPT and DOAV -- will undertake an agency-level strategic planning process to supplement the efforts initiated by ***Virginia Connections***. These agency-level efforts will facilitate the implementation of Governor Allen's 4 C's, the seven principles articulated in this paper, introduce agency-specific initiatives and enable more effective allocation of all transportation resources.

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