HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN

HAMPTON ROADS
PLANNING DISTRICT COMMISSION

MAY 1995

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HAMPTON ROADS PLANNING DISTRICT COMMISSION

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ABSTRACT

The Hampton Roads Planning District Commission has developed a transportation plan which addresses a twenty year planning period (1990-2015). The Hampton Roads 2015 Regional Transportation Plan includes both long-range and short-range strategies/actions, with projected fiscal constraints, that will lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods.

ACKNOWLEDGEMENTS

This report was prepared by the Hampton Roads Planning District Commission in cooperation with the Cities of Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach and Williamsburg; the Counties of Gloucester, Isle of Wight, James City and York; James City County Transit; the Peninsula Transportation District Commission; the Tidewater Transportation District Commission; the Virginia Department of Rail and Public Transportation; the Virginia Department of Transportation; and the U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration. The contents of this report reflect the views of the Hampton Roads Area MPO. The Commission is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the aforementioned Federal, State and transit agencies or the Hampton Roads Planning District Commission. This report does not constitute a standard, specification or regulation. Federal or State agency acceptance of this report as evidence of fulfillment of the objectives of this planning study does not constitute endorsement/approval of the need for any recommended improvements nor does it constitute approval of their location and design or a commitment to fund any such improvements. Additional project level environmental impact assessments and/or studies of alternatives may be necessary.

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INTRODUCTION

The **Hampton Roads 2015 Regional Transportation Plan (RTP)** is a long-range plan, addressing a planning horizon of twenty years. The purpose of the RTP is to identify deficiencies in the transportation system and provide projects and programs designed to resolve such deficiencies. The Federal Rules regarding the RTP are as follows:

> **The metropolitan transportation planning process shall include the development of a transportation plan addressing at least a twenty year planning horizon. The plan shall include both long-range and short-range strategies/actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods. The transportation plan shall be reviewed and updated at least triennially in nonattainment and maintenance areas (Hampton Roads is a marginal nonattainment area) and at least every five years in attainment areas to confirm its validity and its consistency with current and forecasted transportation and land use conditions and trends and to extend the forecast period. The transportation plan must be approved by the Metropolitan Planning Organization (MPO).** [1]

BACKGROUND

Since the first regional planning policy was developed in 1962, the Federal Department of Transportation and other transportation related agencies have worked, through the transportation community, to develop fitting legislation that insures a process which relies on good science. The Federal Highway Act of 1962 called for multidisciplinary research and required a **continuing, comprehensive and cooperative (3-C)** process for urban transportation planning. Urban areas are defined as those having a population of 50,000 or more. After July 1, 1965 the Secretary of Commerce (Bureau of Public Roads) was prohibited from approving any program for highway projects in urban areas, unless the program was the result of the 3-C planning process. At that time, the importance of urban mass transportation was recognized by requiring that urban highway systems be "an integral part of a soundly based, balanced transportation system for the area involved."

With the adoption of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) came a reemphasis of the multiple modes of transportation and their linkages, in addition to a requirement that the approved long-range transportation plan be financially constrained. The ISTEA legislation requires the application of fifteen planning factors,

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[1] Statewide Planning; Metropolitan Planning; Rule 450.322 Metropolitan Transportation Planning Process; Transportation Plan, Federal Register / Vol. 58, No. 207/ October 28, 1993 / Rules and Regulations. **(See Appendix A)**

many of which relate to transportation modes and systems beyond highways and roads. (The fifteen planning factors and the Hampton Roads response to the factors are included in **Appendix B**.) Accordingly, the overall social, economic, energy, and environmental effects of transportation decisions must be addressed, particularly as they relate to future land use decisions. Inherent in the planning factors is the need to preserve existing transportation facilities and systems and to make more efficient use of them before resorting to new construction. The same holds true for congestion management and prevention -- new construction is to be considered as a last resort. Connectivity, freight movement, transit security and operations, bicycle and pedestrian facilities, air quality, and cost/benefit relationships are all to be improved and augmented under ISTEA.

The development of the RTP requires the participation of a technical committee, a policy committee, and the public. Members of the Technical Committee are drawn from the region's cities and counties, public transportation commissions, various state transportation departments and federal transportation administrations. The Hampton Roads Metropolitan Planning Organization (MPO) is the designated policy committee, and includes representatives from the local jurisdictions, public transportation agencies, the Virginia Department of Transportation (VDOT), and the Hampton Roads Planning District Commission (HRPDC). A flowchart depicting the RTP development process is included in **Appendix C**.

The Technical Committee's charge is to fashion a plan based on the best available data and technical processes. Transportation proposals emanating from local sources are presented to the technical committee for evaluation on their technical merits. The analysis process, as expected, is continually evolving with the use of high speed computers evaluating modal alternatives. The result is a rigorous multidisciplinary analysis process that leads to a more effective selection of transportation improvements for recommendation to the MPO.

The primary responsibility for development of the RTP resides with the region's Metropolitan Planning Organization (MPO). In addition, other state and federal modal authorities are kept abreast of the MPO's activities, and when needed, these agencies are available to advise the MPO. Proposals are recommended to this body by the Technical Committee based on their technical merits. The MPO must review the technical findings, evaluate the policy implications of the proposal, and take action.

Throughout the planning process there are many opportunities for citizen participation. Participation can occur at the local level, when communities develop comprehensive plans and at the project level, when councils/boards of supervisors endorse a project. At the regional level, meetings are held to review the plans and the methodology used to develop them. The MPO's public participation process includes public meetings on the various transportation related Plans, TIP's, and Conformity Analyses. The region's public participation process is contained in the Hampton Roads Public Involvement Procedure adopted in September, 1994, and included as **Appendix D**. Public transportation authorities routinely hold public hearings on route and service changes, major capital improvement projects, and policy changes. The transportation

district commissions have written programs outlining their hearing and related citizen participation procedures. The State also holds public meetings on specific transportation improvements as they evolve from a major investment study of need within a corridor, to the environmental evaluations of preliminary engineering, to the specific location and design of alternative recommendations. The Virginia Department of Transportation also provides the public an opportunity to address a community's transportation needs annually at the Suffolk District Preallocation Hearing.

The planning process must also set objectives for the management systems mandated by ISTEA. These management systems will provide information to the planning process on the state of the transportation system, the effect of various levels of improvement investment, and will identify specific projects for funding in such areas as bridge replacement and pavement management. The following are an initial set of objectives for the management systems:

- Pavement Management System: Aid the decision making process by providing information about pavement conditions and recommend treatments and cost effective strategies to improve the efficiency and safety of, and to protect the investment in, the state's transportation infrastructure. This will include not only the prioritization of candidate projects and the forecasting of budget needs, but also the evaluation of pavement design, construction, rehabilitation, and preventative maintenance.

- Public Transit Facilities Management System: Provide local, regional, and state decisionmakers, as a part of the metropolitan and statewide planning processes, with the information necessary to select cost effective strategies for providing and maintaining public transportation assets in a serviceable condition. An assessment of decision makers' needs, existing data collection in Virginia, and PTMS activities in selected other states will be conducted, and a database framework and decision making process will be developed.

- Bridge Management System: Provide a statewide program which promotes efficient and expedient strategies and actions for rehabilitation, repair, improvement, or replacement of an aging bridge population. The program will include assessment of needs, analysis of project-level costs, and the provision of a decision-making process for taking action.

- Safety Management System: Identify and seize all opportunities to enhance the safety of Virginia's roads. The challenges are to coordinate safety efforts more fully; to provide guidelines for the replacement and upgrade of safety hardware, highway elements, and operational features; to increase the integration of data systems; to provide for more rigorous evaluation of safety efforts; and to target injury reduction.

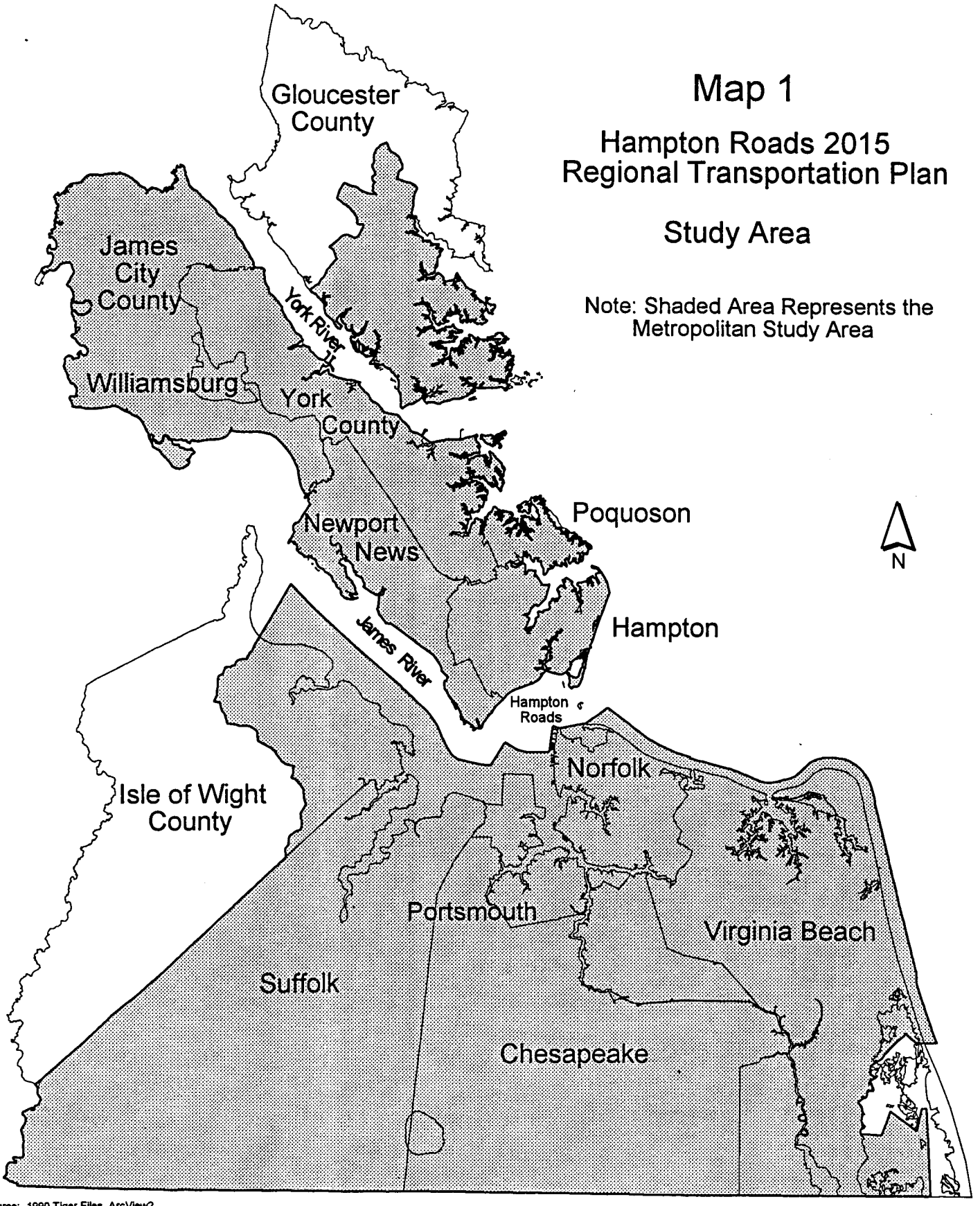
- Congestion Management and Intermodal Management Systems: Identify the location and causes of constraints on the movement of people and goods

represented by congestion and intermodal issues. This will be achieved through the monitoring of system performance, identification of intermodal deficiencies, identification and evaluation of potential strategies, and the monitoring of strategy effectiveness.

STUDY AREA

The Hampton Roads Metropolitan Study Area is located in the southeastern corner of Virginia adjacent to the Atlantic Ocean and the Chesapeake Bay. The study area is divided by the James River and the harbor of Hampton Roads into two subregions: the Peninsula and the Southside. The Peninsula is the northern subregion and includes the Cities of Hampton, Newport News, Poquoson, and Williamsburg; the Counties of James City and York; and a portion of Gloucester County. The Southside includes the Cities of Chesapeake, Norfolk, Portsmouth, Suffolk, and Virginia Beach; and a portion of Isle of Wight County.

The study area includes three major port facilities, two international airports, two rail lines, two major shipyards, and several military bases including one of the world's largest naval bases. The Hampton Roads Metropolitan Study Area is depicted in **Map 1**.



Map 1

Hampton Roads 2015 Regional Transportation Plan

Study Area

Note: Shaded Area Represents the Metropolitan Study Area

Source: 1990 Tiger Files, ArcView2
Prepared by: Hampton Roads Planning District Commission, April 1995

REPORT ORGANIZATION

This report is divided into four sections.

Section 1, **Goals and Objectives**, lists the goals and objectives used as general guidelines during the development of the RTP.

Section 2, **Land Use Data**, includes population and employment data for the base year, 1990, and the year 2015.

Section 3, **Model Development**, gives a brief description of the development and use of the transportation demand model in the development of the RTP.

Section 4, **Regional Transportation Plan**, includes the funding projections used to financially constrain the plan and information on the various elements of the RTP, including Major Thoroughfares, Transit, Bicycle Facilities, Pedestrian Facilities, Freight Movement, and Transportation Demand Management.

GOALS AND OBJECTIVES

The primary mission directing transportation analysis and decision-making in Hampton Roads is the overriding need to facilitate personal mobility by whatever mode is chosen; a need that has not been overlooked in this region when planning the transportation system. The basic premise to be advanced is the need to develop and maintain a safe, reliable and effective transportation system which places both individuals and the business community at a competitive advantage with regard to other metropolitan areas.

GOALS

The selection and approval of regional transportation facilities and services is based on goals achievement, travel demand analysis, and policy review and approval. It should be recognized that transportation planning serves the visions of participating jurisdictions as defined in their Comprehensive Plans. The quality of life, and economic and environmental issues addressed in local Comprehensive Plans are so important to the vitality of the region that they may be expressed as the goals used in assessing the selection of regional transportation facilities and services.

Quality of Life Issues

1. Analyzing and implementing regional and community level transportation services for the unique needs of all Hampton Roads citizens, including:

    a) Meeting the transportation needs of persons without privately owned transportation.
    b) Meeting the unique needs of the elderly and disabled.
    c) Providing services for transportation dependent children.

2. Assessing transportation facilities and services to meet the year-round and seasonal recreational and cultural needs of the tourists and the local community.

3. Providing alternative public transportation modes to serve off-peak suburban to suburban travel demands.

4. Supporting recreational, retail and office land use developments that can make use of transit services.

5. Analyzing transportation service requests to meet the continuing education needs of the adult community.

6. Analyzing transportation service requests to meet the cultural and recreational needs of children.

7. Planning and funding bicycle and pedestrian facilities in areas to encourage their use in place of automobiles.

8. Coordinating among local jurisdictions for the planning and phased implementation of the regional bikeway network.

9. Coordinating with appropriate state agencies to insure the development of safe and reliable emergency evacuation procedures.

Economic Issues

1. Planning and programming transportation resources in a way that balances individual, jurisdictional and regional economic needs.

2. Insuring the proper planning and implementation of transportation services to meet the commuting and mobilization needs of the Armed Forces on a routine and emergency basis.

3. Designing new development and redevelopment to encourage alternative transportation modes, and, where possible, using existing infrastructure to reduce the need for new construction.

4. Providing an appropriate array of transportation services and improvements to existing and planned passenger air, rail and water port facilities.

5. Strategically planning the location and type of transportation facilities for freight related air, rail and water port transportation facilities to insure the best intraregional, interstate and international access to Hampton Roads.

6. Addressing the existing and planned transportation network and transportation services as they pertain to intermodal transportation requirements of goods movements, persons and other related services.

    a) Continuing to examine and implement timed transfer facilities for ridesharing, fixed route transit, express bus service, handiride and related paratransit services.
    b) Coordinating with the state, local and private water port authorities to insure the best possible movement of rail and truck freight to the region's water ports.
    c) Coordinating with jurisdictions and rail and truck interests to insure the most efficient and effective movement of intracity and intercity freight movements within and into the region.
    d) Coordinating with all civilian and military air facilities to insure safe and continued growth of freight, passenger and military movements.
    e) Coordinating with all branches of the armed forces to insure safe and reliable movement of goods and services to meet routine and emergency needs.

7. Developing an array of transportation services to meet regional, jurisdictional, community and individual commuting needs.

   a) Supporting development of pedestrian-friendly high density business districts and industrial centers that can be effectively served by public transportation services.
   b) Planning and implementing transportation demand management techniques which encourage ridesharing and off-peak commuting.
   c) Identifying congested highway corridors that could use public transportation or other methods to reduce the number of the single-occupant vehicles during peak travel periods, thus postponing or eliminating the need for roadway widening.

8. Providing park and ride facilities at, or along corridors that serve, major employment centers, regional shopping centers and regional cultural and recreational centers.

9. Planning and marketing fixed route and express transit service in areas defined in the region's transit development plans.

10. Planning and implementing systems that insure appropriate and timely information to motorists about pending traffic conditions.

Environmental Issues

1. Insuring that transportation improvements offer a balance between transportation needs and environmental quality (air, water and land).

2. Giving priority to funding transportation control measures included in the state implementation plan for air quality.

3. Planning improvements to minimize visual and noise impacts.

4. Designing the regional and local transportation network to limit transportation related disturbances to neighborhoods, businesses, and cultural and recreational activities.

OBJECTIVES

In concert with the goals dealing with the economic, environmental and quality life issues associated with regional development is the development of measurable objectives for transportation improvements to fulfill. In addition, there are issues within the ISTEA legislation that deal specifically with the use of transportation resources in an efficient and cost effective manner. Both regional goals and ISTEA issues of efficiency are referred to as transportation system objectives.

The goals and policies reflect **Quality of Life** needs to meet the social, cultural, educational and recreational needs of the region's residents and guests. **Economic** goals and policies support existing and future development activities while **Environmental** policies preserve the region's natural environment.

Quality of Life Objectives

Transportation and land use can act jointly to address the need for determining and serving accessible locations for our cultural, educational, recreational, residential and basic shopping needs.

1. Focusing on transportation improvements that advance the region's mission and goals.

2. Using the results/capabilities of the travel demand model to strategically evaluate a community's accessible locations for different types of land uses. Plan improvements based on travel demand results of tested land use schemes.

3. Planning for and designing residential and employment centers to use pedestrian, bicycle and transit facilities in a cost effective manner.

4. Considering effectiveness as one of the primary measures when evaluating non-highway improvements.

5. Pursuing the development of high-density/pedestrian-friendly centers in accessible locations that can be served by highways and transit in a cost effective manner.

6. Reducing trip length and improving accessibility for unserved persons by planning for cultural and recreational activities within or close to residential developments.

7. Reducing trip length by strategically placing basic shopping (food/convenience) and service activities within easy and safe access by pedestrians and bicyclists to residential developments.
8. Encouraging the location of regional community service, cultural and recreational activities in areas or along corridors that are easily served by public transportation.

9. Avoiding locating primary and middle schools along major thoroughfares.

10. Considering community, jurisdictional and regional goals when proposing enhancement projects.

Economic Objectives

1. Giving priority to maintenance and management improvements.

2. Using the Regional Transportation Plan as the source for all non-maintenance transportation improvements. Projects in the Transportation Improvement Program (TIP) should be limited to improvements noted in the RTP.

3. Elevating priority to programs and procedures that manage and reconstruct the region's existing transportation system to better utilize existing capacity.

   a) Promoting the continued development of all management systems.
   b) Following the recommendations of management system findings when considering projects for the TIP.
   c) Improving corridor efficiency and effectiveness by implementing Intelligent Transportation System (ITS) strategies.
   d) Pursuing private sector involvement in the transportation planning process.
   e) Following recommendations of the Congestion Management System to insure a high corridor level-of-service.

4. Reserving rights-of-way for future travel corridors.

5. Incorporating safety recommendations into all transportation improvements.

6. Investigating all options to fully fund the RTP.

   a) Promoting public private partnerships.
   b) Continuing to evaluate, through cooperative efforts, the need for an adequate funding source for the RTP.

7. Increasing the regional system's capability to efficiently move people and goods.

8. Prioritizing the implementation of Transportation Demand Management (TDM) measures which encourage ridesharing and travel during non-peak hours in highly congested corridors.

Environmental Objectives

1. Reducing mobile source emissions through innovative transportation and land use initiatives.

2. Planning transportation improvements to enhance air quality.

3. Planning transportation improvements to reduce energy consumption.

LAND USE

The Regional Transportation Plan is driven in large part by forecasted changes in land use. The forecast includes household and employment data required for use in the long-range travel demand model. The forecast and a detailed description of the forecast methodology can be found in a report titled *Hampton Roads 2015 Economic Forecast*, dated February 1993. Summary household population and employment figures for the localities in Hampton Roads can be found in **Appendix E** of this document.

During the planning period encompassed by the Hampton Roads 2015 Regional Transportation Plan, the localities of Hampton Roads will experience population growth that will range from stable to significant. Two examples of significant growth are Isle of Wight County and the City of Suffolk, projected to increase their household populations by over 89% and 73%, respectively (see **Figure 1**). Other jurisdictions anticipated to realize significant population growth on the Southside are: Chesapeake (48%) and Virginia Beach (28%). It would appear that, based on percentages alone, population growth on the Southside is headed westward. Marked increases in household population are also expected on the Peninsula. While each of the cities on the Peninsula will experience population growth, it will be the counties (James City, Gloucester and York) that will realize the most significant gains: 70%, 54% and 41%, respectively (see **Figure 2**).

Growth in total employment is also anticipated for the localities of the region. On the Southside, the City of Suffolk will witness a relatively substantial increase of 114%, while the City of Chesapeake and Isle of Wight County are also projected to experience gains in total employment of 100% and 54%, respectively (see **Figure 3**). The central cities on the Peninsula, Newport News and Hampton, will also continue to experience employment growth. However, as was true with household population, the Peninsula's counties (Gloucester, York and James City) are expected to experience greater employment growth: 90%, 79% and 42%, respectively (see **Figure 4**).

The Cities of Norfolk and Portsmouth, based on their employment to population ratio, will continue to retain their position as the Southside's major employment centers, as can be seen in **Figure 5**. The employment to population ratio identifies areas that have higher concentrations of employment than population, as is indicated by a figure greater than 1.0. If the projections hold true, Norfolk, and to a lesser extent Portsmouth, will become less of a residential center and more of an employment center by the year 2015. The jurisdiction with the highest concentration of employment, based on the employment to population ratio, is Williamsburg. According to **Figure 6**, for each person living in Williamsburg in 1990, approximately two people were employed there. Though this figure is anticipated to decrease by the year 2015, Williamsburg will continue to have the Peninsula's highest employment concentration.

FIGURE 1
HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN
1990 AND 2015 TOTAL POPULATION FOR SOUTH HAMPTON ROADS

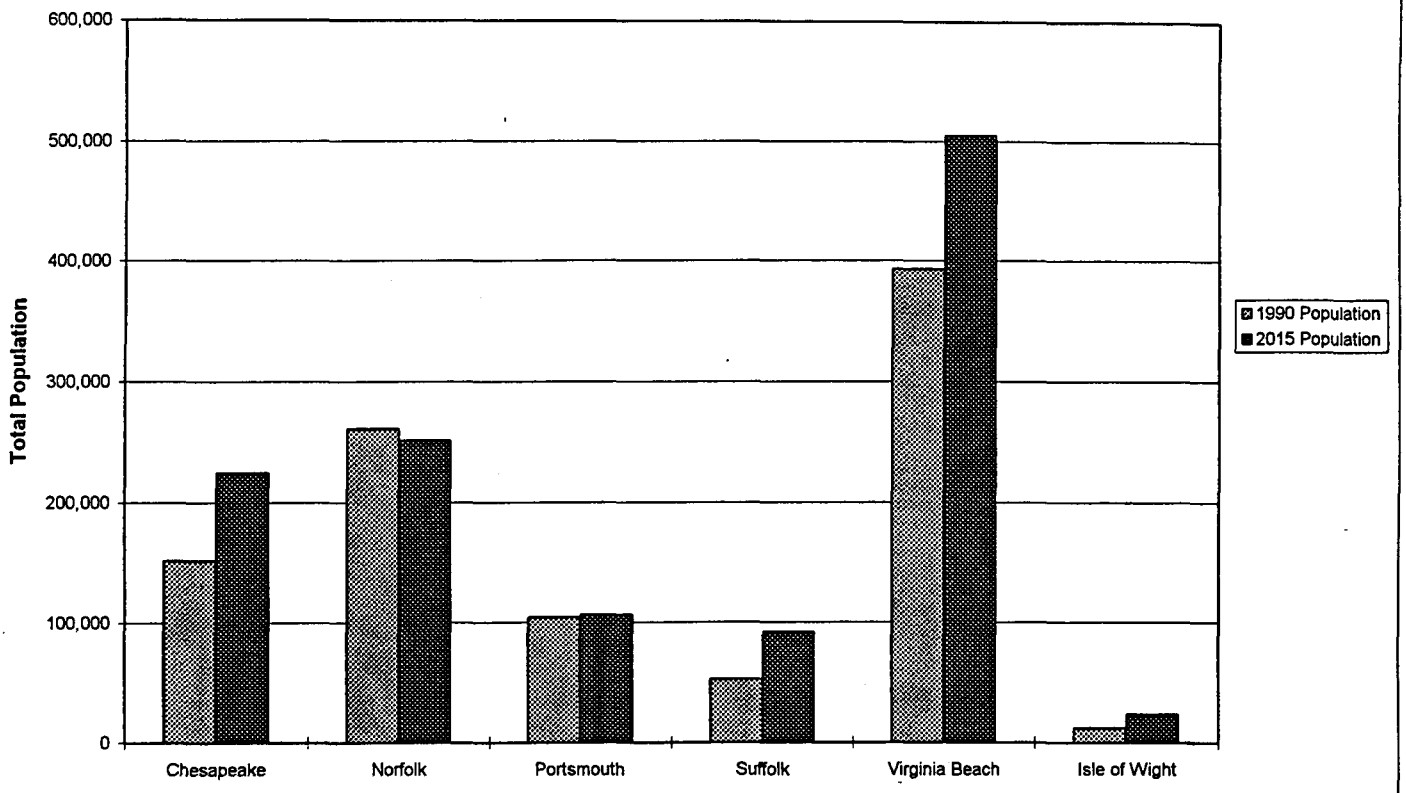
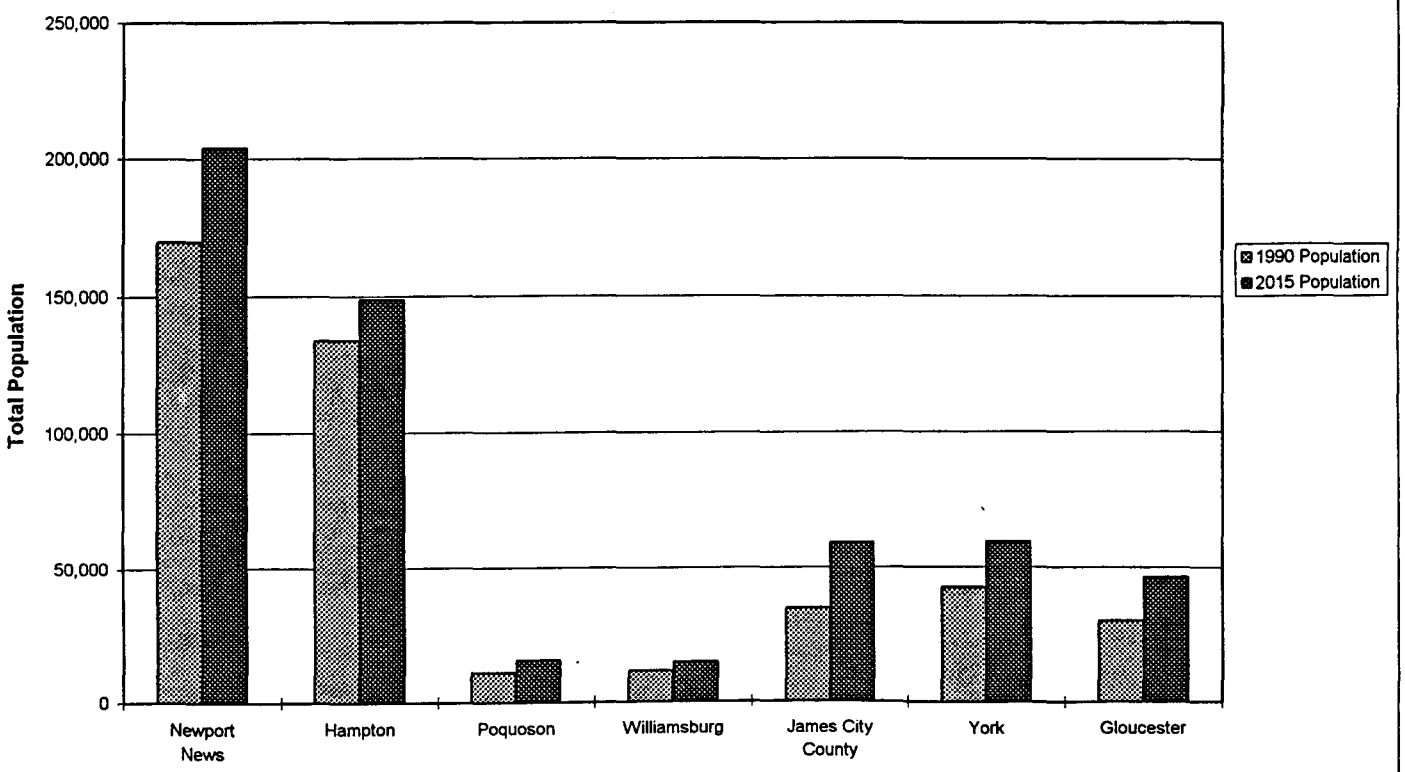


FIGURE 2
HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN
1990 AND 2015 TOTAL POPULATION FOR THE PENINSULA



Prepared By: HRPDC, April 1995.

FIGURE 3
HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN
1990 AND 2015 TOTAL EMPLOYMENT FOR SOUTH HAMPTON ROADS

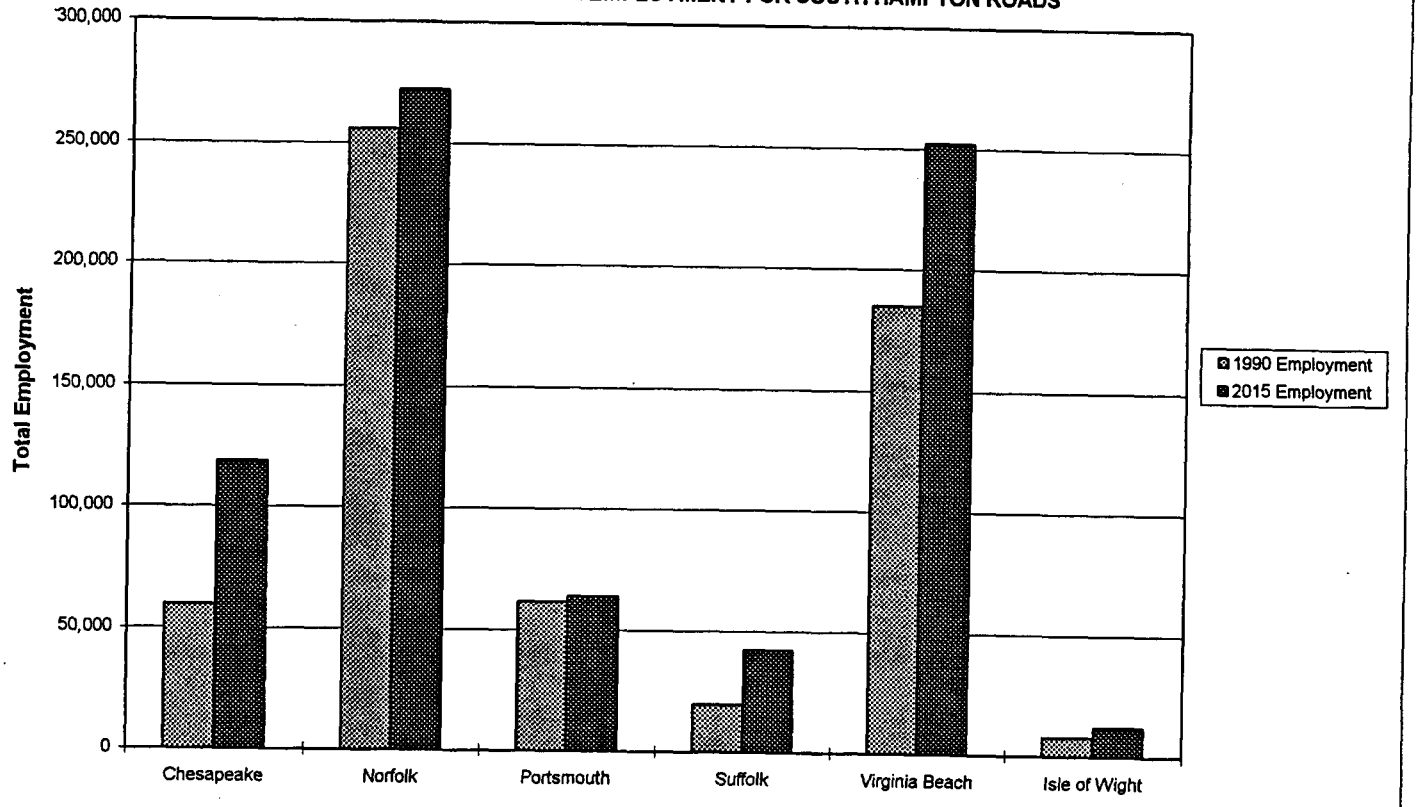
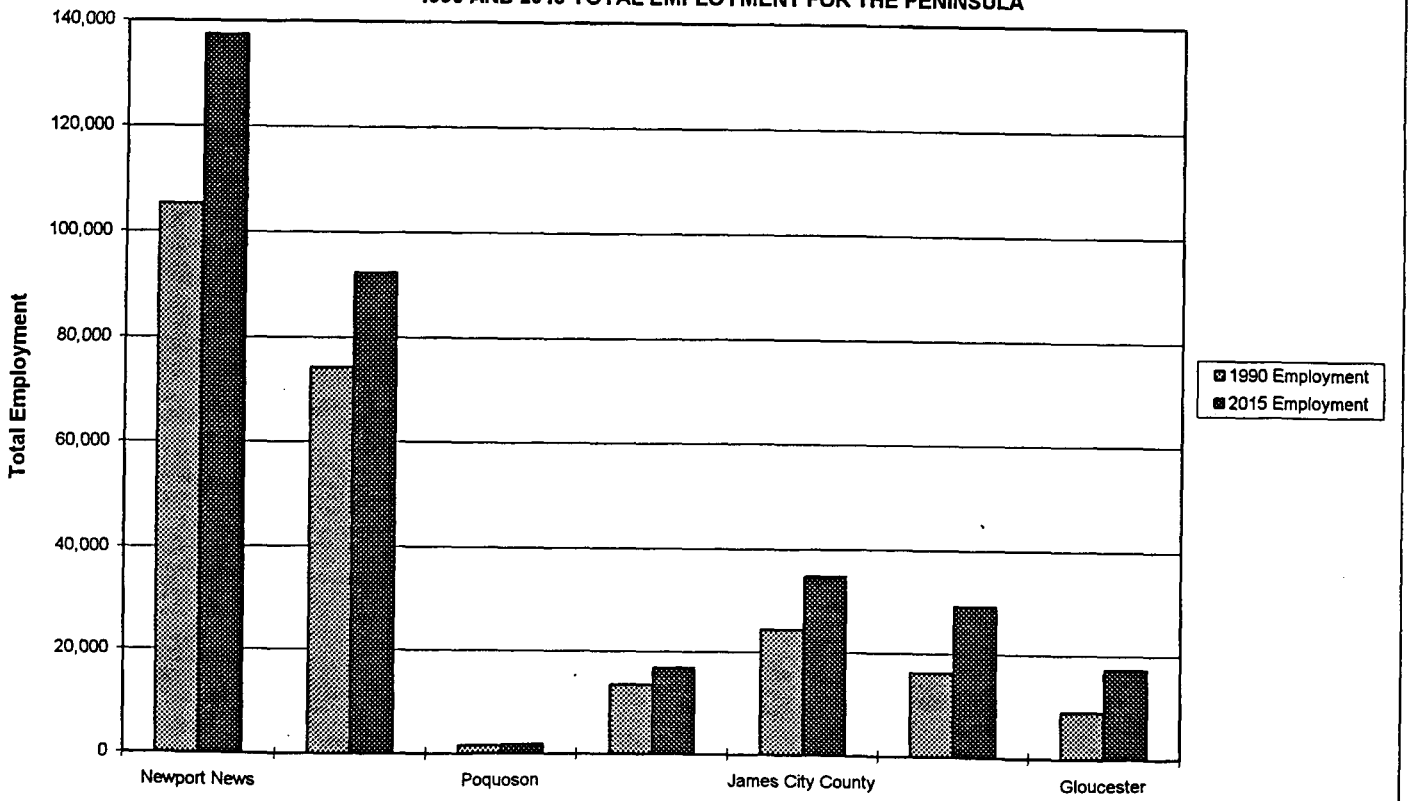


FIGURE 4
HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN
1990 AND 2015 TOTAL EMPLOYMENT FOR THE PENINSULA



Prepared By: HRPDC, April 1995.

FIGURE 5
HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN
SOUTH HAMPTON ROADS COMPARISON OF EMPLOYMENT TO POPULATION RATIO

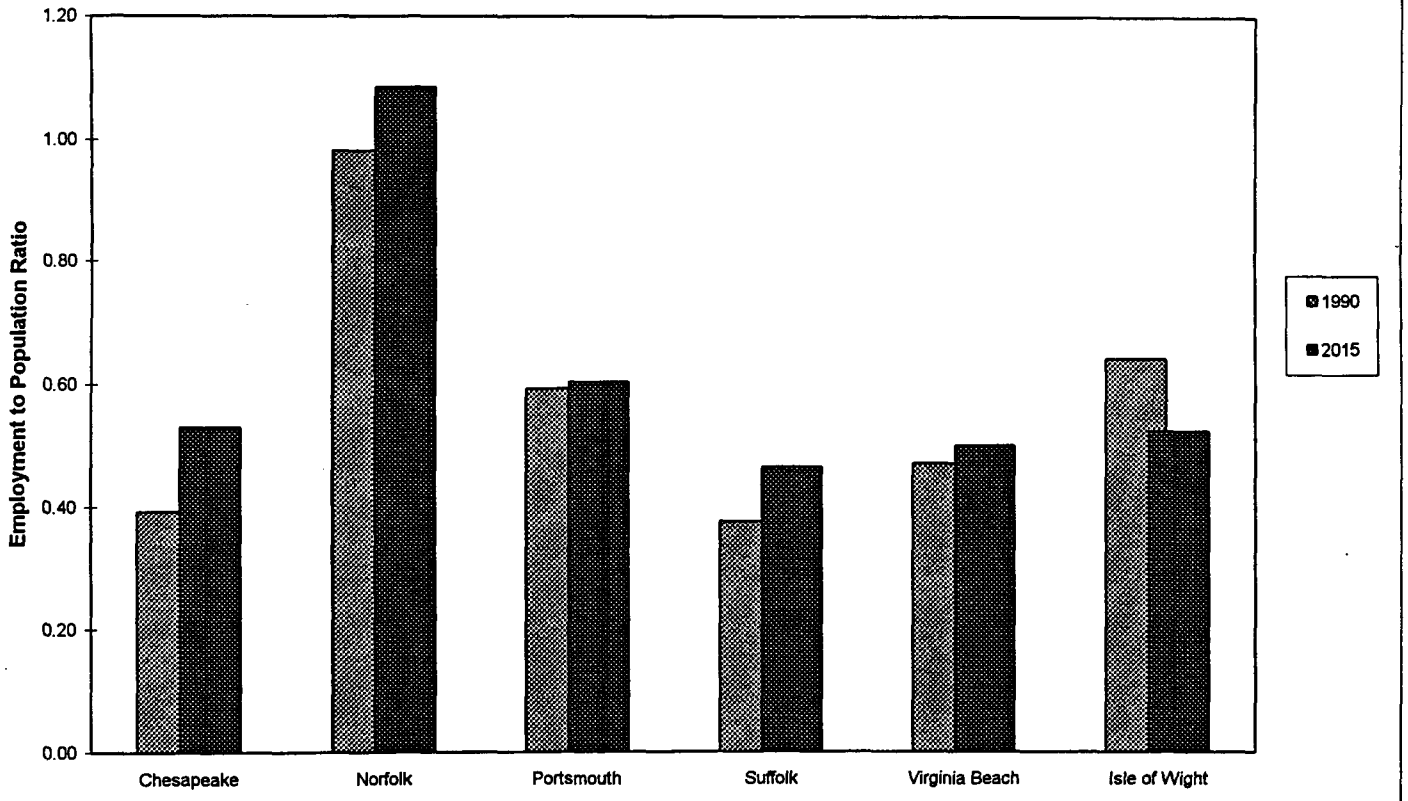
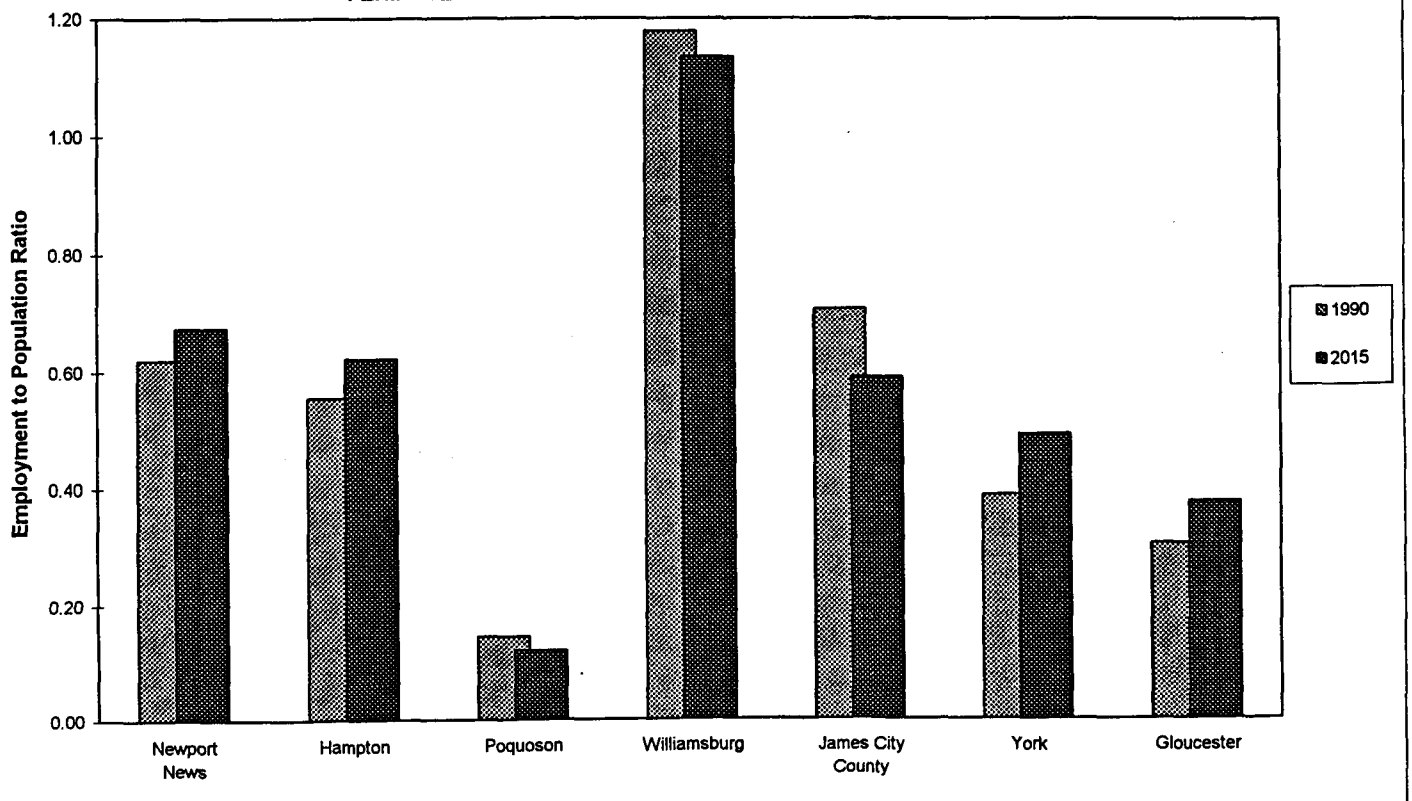


FIGURE 6
HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN
PENINSULA COMPARISON OF EMPLOYMENT TO POPULATION RATIO



Prepared By: HRPDC, April 1995.

SUBAREA ANALYSIS

As was previously noted, based on percentage increases, population growth on the Southside is headed westward. Further analysis of the data reveals that, although certain jurisdictions will realize large percentage increases in either population or employment, the growth is still more substantial in the eastern portion of the region.

Population and employment trends of the Southside localities were reviewed based on each jurisdiction's location relative to the Elizabeth River. All of Portsmouth, Suffolk, Isle of Wight and portions of Chesapeake are located west of the Elizabeth River while Norfolk, Virginia Beach and the remainder of Chesapeake are on the east side of the river. Based on the analysis, the east side of the river will continue to retain the greatest proportion of population and employment. **Figure 7** illustrates that while the population is almost doubling in some jurisdictions to the west, the population is still growing on the east, but at a slower rate. In 1990 population east of the river was 758,322 while west of the river it was 216,957. In 2015 the population on the east side of the river is anticipated to be 904,299 (an increase of 145,977), while the west side's population is anticipated to be 297,487 (an increase of 80,530). Although the proportion of the population living on the east side of the river will decrease from 78% to 75% during the study periods, the east side will realize an increase of 65,400 individuals more than will the west side.

The trend is similar for employment. While its concentration of employment will decrease slightly from 83% in 1990 to 79% in 2015, the east side will still realize significant increases in the actual number of individuals employed within the area. Specifically, while the concentration of employment will increase by 4% on the west side, from 17% in 1990 to 21% in 2015, the east side will actually continue to gain more employment, just at a slower rate that the west side.

Two additional subarea analyses were done using urban and suburban characteristics and high-use corridors to aid in defining the study areas. The first study area was comprised of South Hampton Roads localities and, for the purposes of this analysis, was delineated by the "beltway" of I-64 and I-664. The inner portion of the corridor, or loop, is urban in nature and is comprised of the cities of Norfolk and Portsmouth, as well as portions of Virginia Beach, Chesapeake and Suffolk. The outer loop is comprised of the remainders of Virginia Beach, Chesapeake, Suffolk and the portion of Isle of Wight County included in the regional study area. Population and employment data were analyzed to determine future trends. As can be seen in **Figure 8**, the majority of the population in South Hampton Roads lived outside the loop, in the more suburban and ex-urban communities. This trend is expected to continue through the year 2015, although at a slower rate. Employment on the other hand, was more concentrated inside the loop in 1990. However, based on the data reviewed, this trend will reverse itself by 2015, so that more employment will be found outside the loop.

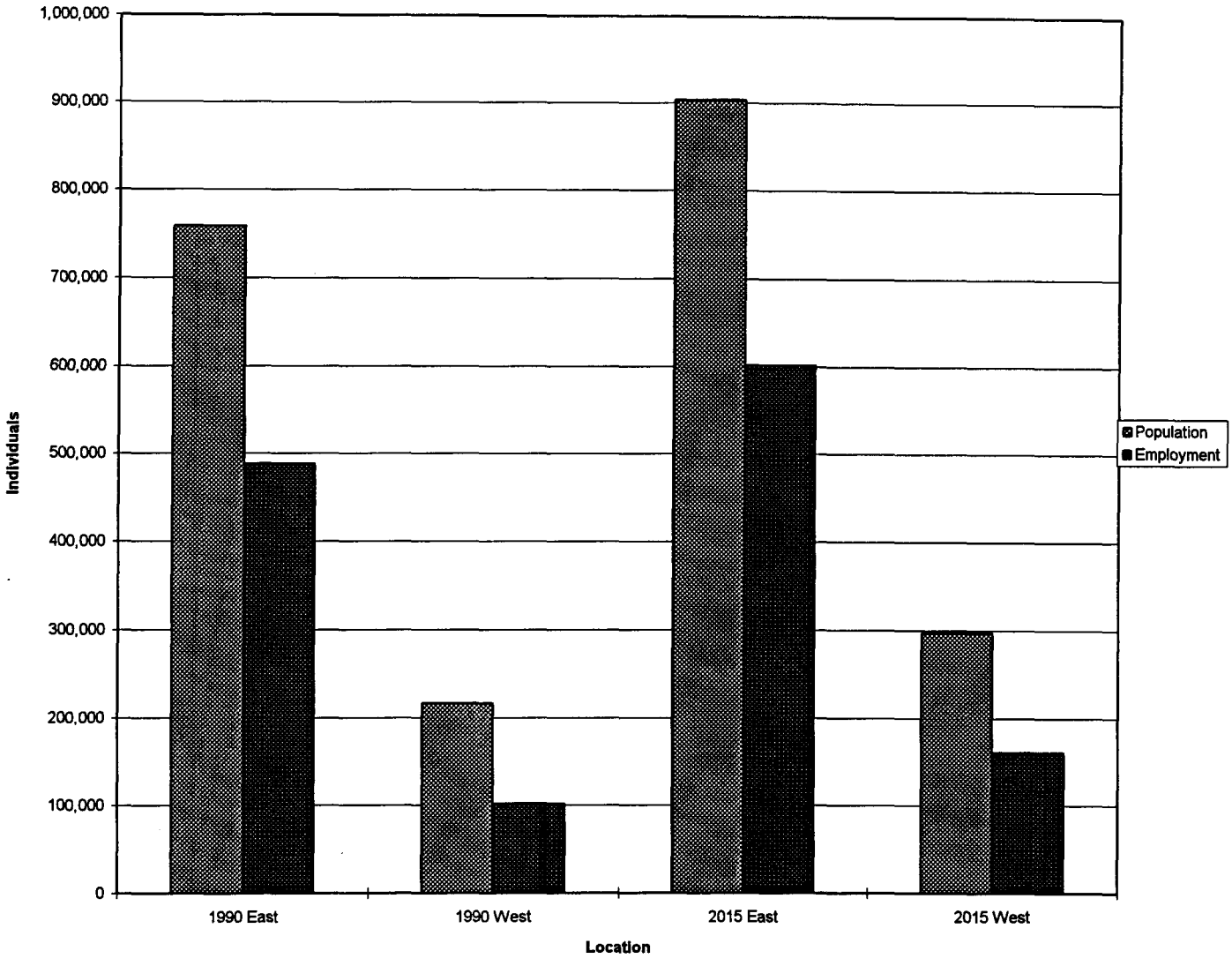
The Peninsula loop analysis was conducted using Mercury Boulevard as the physical boundary delineating the urban and suburban areas. It should be pointed out that the inner loop is made up of only a portion of Newport News and Hampton, leaving a

sizable section of each jurisdiction outside of the urban analysis area. This was done because the analysis also focuses on delineating areas by high-use corridors, of which Mercury Boulevard was the only viable option to consider. **Figure 9** indicates that the overwhelming majority of individuals lived outside the loop and that this trend is expected to continue through 2015. Based on the data, employment is also more prevalent outside the loop, and is anticipated to continue to be the area of choice for future employment. As the region approaches the year 2015, the Peninsula's outer loop will continue to command the area's largest proportion of both population and employment.

The importance of population growth and concentration must not be underestimated. Based on these figures, future high growth areas can be identified and their needs anticipated. The same can be said for employment growth and concentration. It is important that these figures be analyzed in relation to each other and each jurisdiction. For example, the City of Norfolk is not expected to realize a growth in household population, however, they are expected to experience over a 6% growth in employment. This would indicate that the city's employment growth will be coming from outside the jurisdiction, and that transportation corridors into and within the city will experience additional demand and increased congestion. The planning of transportation projects to reduce congestion and enhance mobility will be an integral part of the city's ability to continue to attract employment. On the other hand, Gloucester County is expected to experience growth in both population and employment, 54% and 90%, respectively. The County must determine where these increases are likely to take place and how to move people between them. Also, since the growth in employment is larger than the growth in population, the county must determine where these new employees are commuting from and plan for their movement accordingly.

A separate document titled *Hampton Roads Economic Forecast Volume II*, dated August 1994, contains the detailed land use forecast (household and employment data for 1990 and 2015) used in the socioeconomic data files in the travel demand model.

FIGURE 7
HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN
SUBAREA ANALYSIS: EAST & WEST OF THE ELIZABETH RIVER



Prepared By: HRPDC, April 1995.

FIGURE 8
HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN
SOUTH HAMPTON ROADS LOOP ANALYSIS

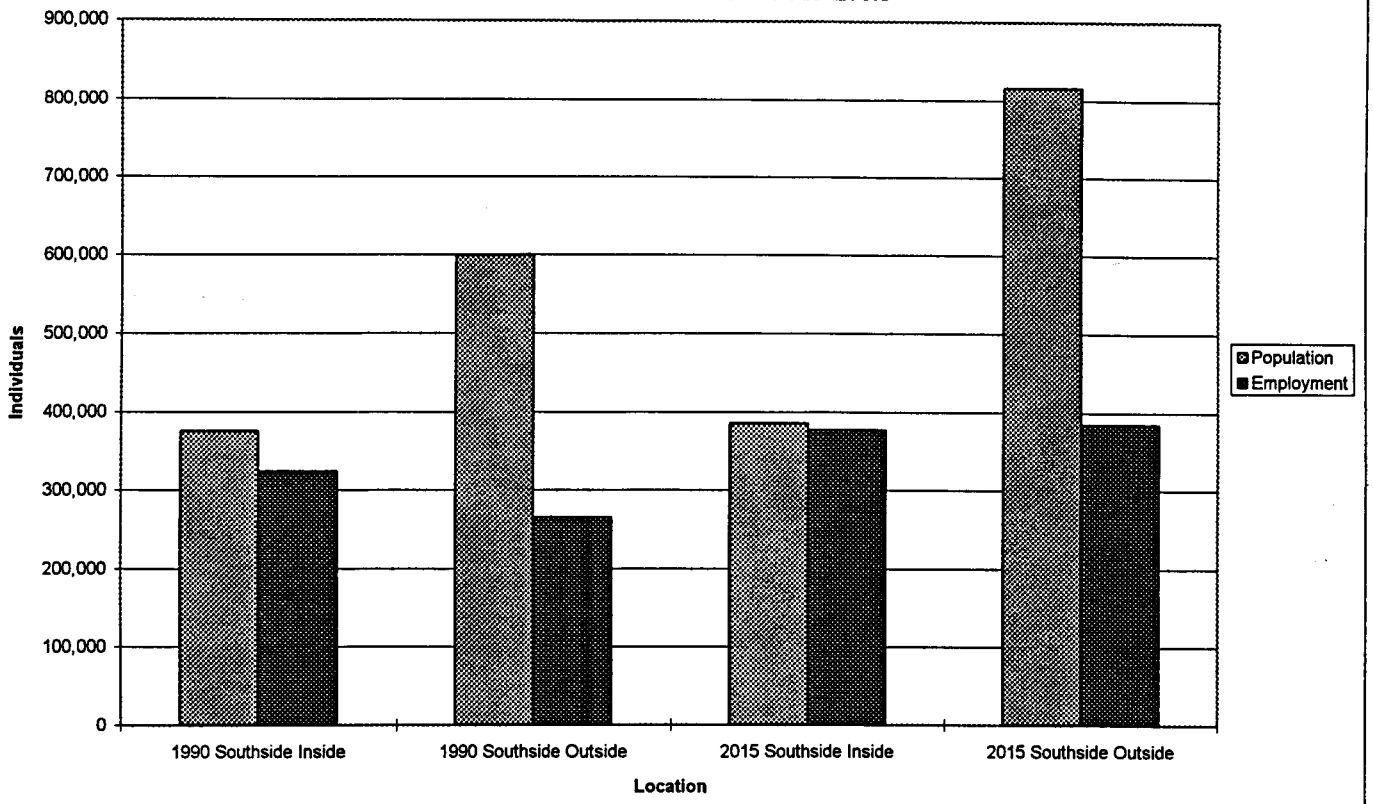
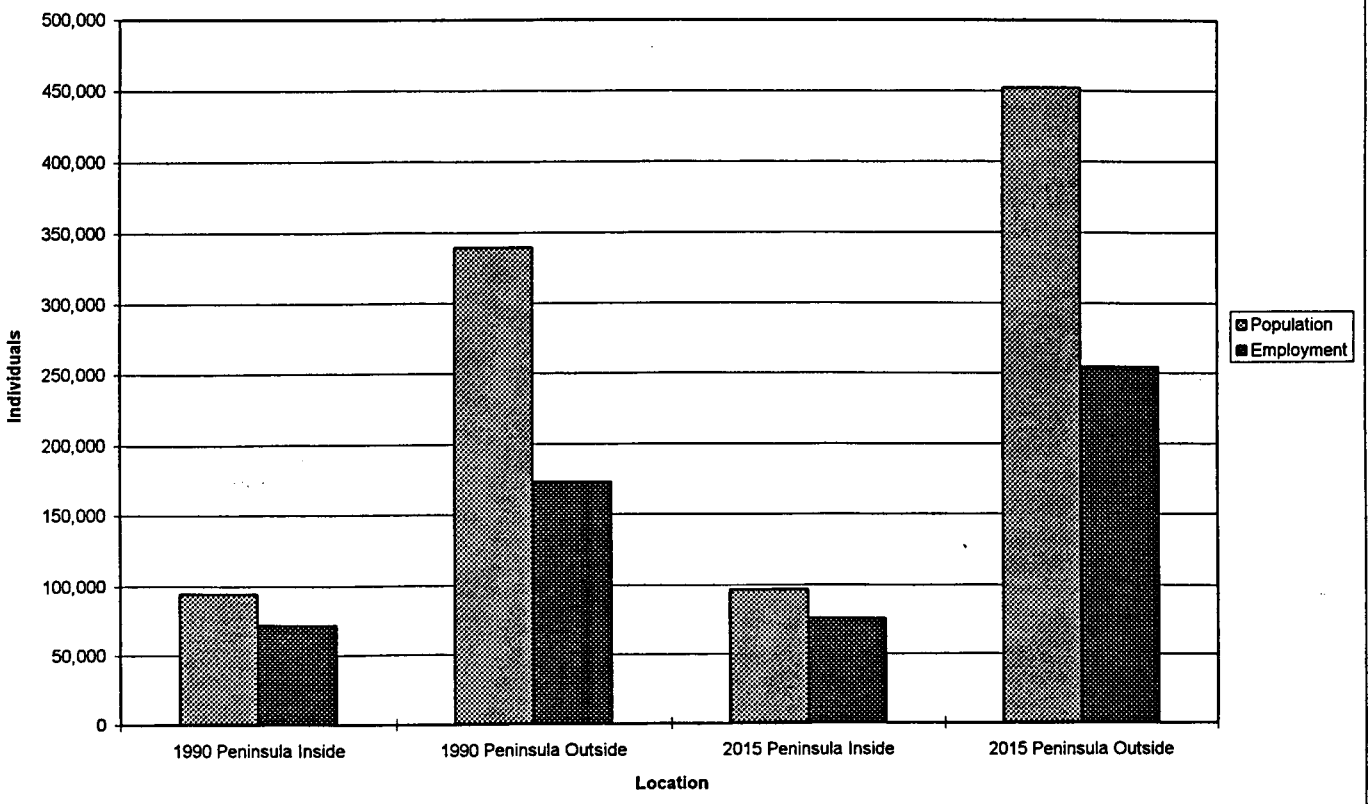


FIGURE 9
HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN
PENINSULA LOOP ANALYSIS



Prepared By: HRPDC, April 1995.

MODEL DEVELOPMENT

The technical process used to determine long-range transportation needs includes procedures requiring a great deal of interagency coordination. The first step entails forecasting regional and jurisdictional socioeconomic change from a base year, which in this case is 1990, to a forecast year (2015). The forecast includes household and employment data required for use in the long-range travel demand model. Step two involves compiling socioeconomic data by transportation zone for 1990. (There are approximately 1,000 transportation zones in this region.) The 1990 information, along with the forecast, provides the jurisdictions with a base for allocating household and employment changes to transportation zones for 2015. Using the regionally developed socioeconomic data, along with local comprehensive plans, jurisdictions assign household and employment data for 2015 to transportation zones. Local environmental planners review this allocation process to insure that an area selected for development is not environmentally sensitive. Household population and employment data have been analyzed for both the Southside and the Peninsula in an attempt to estimate future transportation needs.

Once the socioeconomic data has been allocated to transportation zones, the travel demand model is calibrated and run. The regional travel demand model, MINUTP (developed by COMSIS Corporation), estimates travel demand (by hour, up to 24 hours) for the region's major thoroughfares. Forecasting transportation activity requires a calibrated model as a starting point. The model is calibrated using "base year" data, in this case, data for the year 1990. The 1990 transportation zone data is run in the 1990 travel demand model, producing estimates of vehicle volumes along each link of the roadway network. The estimates are compared to actual hourly and 24-hour traffic counts collected by VDOT on thoroughfares throughout the region. The VDOT traffic counts include 15 minute, hourly and daily summaries. Adjustments are made to the model and it is rerun until the model estimates are reasonably close to the ground counts collected by VDOT. This lengthy calibration process involves analyzing all elements of the travel demand model. The next step is to test the 2015 highway improvements using the calibrated travel demand model and 2015 socioeconomic data. This step requires close coordination among all jurisdictions to insure that each locality knows exactly what transportation improvements their neighbors are considering.

REGIONAL TRANSPORTATION PLAN

The Hampton Roads Metropolitan Planning Organization (MPO) undertook a number of steps since December 1991 to move in the direction mandated by ISTEA. In 1993, Bicycle Facilities and Transit Service Area plans were developed and adopted into the 2010 Transportation Plan. A detailed public involvement process was also initiated in 1993 to obtain the benefit of the public's advice on transportation issues, plans, and programs. The MPO strongly supported non-highway solutions in preparing and adopting Transportation Improvement Programs (TIPs) for FY 1993, FY 1994, and FY 1995. Finally, the MPO recommended many innovative transportation solutions and enhancements to the Commonwealth Transportation Board under the Transportation Efficiency Improvement Fund (TEIF) and Enhancements categories.

The approved improvements represented in the Hampton Roads 2015 Regional Transportation Plan are depicted on three sets of maps. The Major Thoroughfare Element map set depicts transit, automobile, and truck travel corridors; the Transit Element map set depicts planned public transportation service areas; and the Bikeway Element map set depicts bicycle travel corridors.

The RTP in no way suggests that the use of transportation funds will only be used to improve vehicular capacity in the corridor. Due to public transportation's flexibility in meeting immediate or short-range demands, and the changing nature of those demands, it is difficult to prescribe a specific strategy or cost to address these needs. However, the Hampton Roads MPO has set aside resources to provide for public transportation service needs as they surface over the next 20 years. As for fixed transit investments, the region is currently evaluating four rail options: a light-rail facility between Norfolk and Virginia Beach, and another on the Peninsula along the CSX corridor that parallels Jefferson Avenue. In addition, VDOT is examining alternative travel modes in the Interstate 64 corridor between Richmond and the Peninsula and in the Hampton Roads Crossing Study between the Peninsula and South Hampton Roads.

OVERALL CONCEPTS

Intermodalism is the single most critical concept unifying the various elements of the plan. There are three types of intermodalism which must be considered:

1. **Freight** intermodalism emphasizes the movement and transfer of cargo among and between modes. Ports, airports, rail lines and terminals, truck terminals, and highways all play significant roles in this type of intermodalism. In Hampton Roads, a significant deficiency in this category is the inability to transfer cargo between the ports by rail and that the ports on the south side are served by a different rail system than the port on the Peninsula.

2. **Long Distance/Recreation** intermodalism refers to mode changes related to travel, both business and non-business, and recreation. The typical pattern is to drive (or be driven) to a location where a plane, train, bus, or boat is boarded for another part of the relatively long (e.g., not a commuter) trip. Included are airports, ship terminals, rail and bus stations, and various hiking and biking trail heads.

3. **Local/Commuter** intermodalism entails mode changes which occur on a daily or frequent basis. At the most basic level, individual driveways and bus stops are places where such intermodalism occurs. For the purposes of this plan, however, intermodal points include only those park and ride lots, transportation centers, commuter rail stations, bike locker banks, and similar facilities which are regionally significant.

There is clearly an overlap between the three types of intermodalism. However, this plan addresses only those which directly affect personal transportation. The intermodal points specifically denoted on the plan maps for each element are common to all elements and may be locations warranting special attention in the land use planning process as well as transportation planning.

The other critical concept is that of personal mobility rather than vehicular mobility. Emphasis is on moving people, not vehicles, and higher priority will be given to those systems and improvements which manage person trips most efficiently and effectively.

FINANCIAL PLAN

In the past, the long-range transportation plan involved identifying all transportation needs to meet future travel demand without regard for fiscal constraint. The new ISTEA legislation requires a financial plan that correlates transportation needs with the ability to fund those needs with available and projected sources of revenue. The financial plan shall address the specific financial strategies required to ensure the selection of projects necessary to reach air quality conformity. This can involve the elimination or modification of some previously planned transportation improvements.

Appendix F includes the estimated regional funding allocations for FY 1995 - FY 2015. In addition, this appendix includes a document that lists the projects, locations, and costs associated with the financially constrained 2015 RTP.

MAJOR THOROUGHFARES

The localities, with guidance from the Hampton Roads Planning District Commission and other agencies, must determine the future needs of the thoroughfare network, given the socioeconomic data forecast, the results of the modelling process, and their own comprehensive plans. Not only must they consider their own individual future needs but

they must work in conjunction with one another to insure continuity of projects so that neighboring jurisdictions are not adversely impacted.

The thoroughfare improvements in the Hampton Roads 2015 RTP are intended to address certain needs identified in the modelling and planning process. It will not be possible, in Hampton Roads, to meet the region's transportation needs in 2015 without construction of some new thoroughfares as well as lane additions to many existing thoroughfares. The planned improvements to the thoroughfare system are itemized in **Appendix F**.

For the purposes of this study, the Virginia Department of Transportation provided cost estimates for each corridor improvement, based on estimated vehicular demand. The procedure used provided the technical and policy committees with cost estimates for the corridor needs.

TRANSIT

Current trends in transportation, land use development and air quality clearly present major challenges to implementing new approaches to regional growth management. Because land use patterns and transportation systems shape each other, a highly coordinated approach is needed. Proximity to transit is a key factor in determining the suitability of a site for higher density, mixed use development which is necessary to make traditional transit service efficient and effective. Alternative services need to be explored to provide transportation options for "choice riders" who have an auto but choose to utilize some form of public transportation.

Convenient transit service, together with management strategies to reduce single vehicle occupancy, is necessary to reduce traffic congestion during commute hours. Added benefits can be gained by capturing local trips within a neighborhood before they reach arterial streets. The plan supports an integrated approach to land use and transportation by recommending the following direction for greater emphasis on transit as well as on pedestrian and bicycle systems.

- Plan, fund and build transportation improvements which ensure long term mobility by increasing the priority of the development of public transportation, pedestrian and bicycle systems. As congestion increases in the region, a more versatile, multi-modal transportation system will become increasingly of value.

- Design and develop transit corridors having frequent light rail or bus service (10 minutes or less) linking main employment, commercial, institutional and residential areas. Provide attractive transit facilities and pedestrian amenities to make transit use more convenient.

- Focus moderate to high density development around transit centers and along transit corridors. Provide a mix of uses and allow for safe and convenient pedestrian circulation within these areas.

- Coordinate efforts of regional and local elected officials, administrators and citizens to encourage transit supportive development to occur in designated transit corridors. Create public and private partnerships. Adopt development regulations to encourage transit supportive development in corridors and districts where public investments in the development of the multi-modal transportation system are being made. Transit supportive development includes such activities as: 1) placing moderate and high density housing and employment within walking distance of transit; 2) mixing residential and employment uses with shopping opportunities and public facilities; 3) providing multiple and direct street connections to transit stops and shopping; and 4) designing for pedestrians without excluding the auto.

Specific service recommendations to be implemented in the Hampton Roads 2015 Regional Transportation Plan include the traditional fixed route bus service as well as the more flexible paratransit feeder bus system for suburban areas and a comprehensive rail system combining both high speed rail and light rail passenger systems.

Urban, high frequency bus corridors will consist of high frequency bus lines running along highly populated arterials and collectors in urban portions of the region. The routes will link high employment centers with outlying neighborhoods as well as the downtown areas of each major city. Some routes will link up with other destinations, as well as connect to the rail system. Transit priority measures should be implemented to ensure high frequency, high speed service. For urban corridors, these measures could include: signal preemption, marked HOV/transit lines, and curb extensions at bus stops. Bus stops should be placed every four to six blocks (approximately 1/4 mile apart) with shelters and pedestrian improvements such as special crosswalks and signals.

Regional, high frequency bus corridors will also consist of high frequency bus lines on streets, but should emulate characteristics of express or limited stop service. These routes will be located on existing arterial streets in suburban locations as well as along expressways, HOV lanes and interstates. In general, regional corridors will connect moderate density neighborhoods with major employment and shopping destinations in suburban areas, with some express service provided to the downtown areas. Transit priority measures such as signal preemption and dedicated bus rights-of-way may be needed to facilitate implementation of high frequency express service. At a minimum, stops should be placed at locations where light rail stations are planned. Passenger amenities including shelters, bicycle parking facilities, ticket machines, schedule displays, telephones, newspaper and vending machines, etc. could be provided.

The Intraregional Passenger Rail System currently being investigated could provide high speed service in several regional corridors throughout Hampton Roads linking the Peninsula and the Southside to the proposed I-95 High Speed Rail Corridor.

Light rail stops are usually placed approximately one-half mile apart. Transit stops on light rail lines will have a high level of station improvements, with distinctive shelter structures, bicycle parking facilities, ticket machines, schedule displays, telephones, newspaper and vending machines, etc. Any proposed new crossing of the Hampton Roads should consider dedicated high-speed passenger and commuter rail.

Other **Non-traditional Public Transit Services** in Hampton Roads will also be available to serve an expanded transit market by providing increased mobility to those individuals in low density areas as well as serving specialized markets. These include trolleys in Virginia Beach and in Downtown Hampton as well as in new areas serving the tourism industry. Passenger ferry service is currently operated by TRT between Norfolk and Portsmouth. Opportunities for expansion of ferry service exist throughout the region. The suburban market will be served in several ways, including the Maxi Ride service on the Southside and jitney or feeder type service within the suburban neighborhoods on the Peninsula which would connect with mainline service, be it traditional fixed route bus service or light rail service.

Paratransit/Demand Responsive Service for the disabled will continue in response to the accessible service requirements of the Americans With Disabilities Act of 1990. As fixed route transit and jitney service expands, the paratransit service will also be required to expand. Efforts will continue to mainstream as many disabled individuals as possible on the bus services as more vehicles and routes become accessible to disabled persons.

Investments in transportation infrastructure, particularly highly visible or high profile projects, should be viewed not solely as a transportation project, but as a means of stimulating many other sectors of the region including, economic development, tourism, community image, civic pride, and other tangible and intangible regional goals.

Transit services will be evaluated utilizing measures of effectiveness which will help determine the need for continuing services. Effectiveness measures include the traditional cost benefit and revenue recovery ratios and passenger usage per mile as well as more socially responsible measures such as personal mobility and accessibility improvements.

BICYCLE FACILITIES

The bicycle facilities designated on the plan are those which serve or can be thought to serve a transportation function, not merely a recreation function. As such, the plan provides linear routings almost exclusively since circuit routes, unless serving multiple origins/destinations, are viewed primarily as recreational in nature. Bicycles are vehicles under the Code of Virginia and are entitled to be operated on any roadway in the Commonwealth unless specifically prohibited, as in the case with the Interstate system and certain limited access arterial highways. There is, however, considerable difference between what is legal and what is prudent and safe. The emphasis here is on the development of logical corridors of regional significance which could, upon their ultimate

development, be comfortably and safely used by cyclists of moderate ability levels. These "basic" bicyclists may be defined as casual or new adult and teenage riders who are not fully confident of their ability to operate in traffic without special provisions for bikes. They prefer Class I and II facilities on arterials and major collectors and Class III facilities on low volume minor collectors and local streets. These cyclists desire relatively direct routings but may accept some deviations in order to use lower volume roads or those facilities having physical separation from travel lanes.

The tendencies of these aforementioned cyclists were used in the development of the Bikeway Element. Consequently, there is a preference for locating designated bikeways along lower volume roads and finding alternative routings to major traffic arteries within the region. Where this is not possible, a higher design standard will typically be appropriate. It is recognized that more experienced cyclists do use, and will continue to use, many of the higher volume roadways in and around Hampton Roads. It is not the intent of this plan to preclude or discourage continuing such use.

There are traditionally three types of classes of bikeway facilities:

- **Class I** facilities are bikeways that are constructed separate from the roadway. They may either be developed in a separate right-of-way, apart from roads and streets, or as a path within the road right-of-way, but physically separated and protected from motor vehicle traffic. These facilities are usually eight to twelve feet wide and are designed to accommodate two-way bicycle traffic.

- **Class II** facilities are bike lanes separating bicycle traffic from motor vehicles by a delineation of physical space (usually with street pavement markings). These bike lanes are typically five to eight foot wide paved shoulders or curb lanes. Class II bikeways can also be separate lanes between the travel lanes and on-street parking areas in urban areas. To accommodate two-way traffic, these bike lanes must be constructed on each side of the road. Class II bikeways provide wider right hand travel lanes and are considerably less costly than the Class I separate bikeways. Class II facilities can often be constructed in conjunction with highway widening projects. When preparing the detailed implementation plans for the bikeway network, conflicts may arise in the establishment of Class II bikeway, particularly in developed areas. These include right-of-way width (particularly for streets having curbs and gutters), on-street parking, intersection design, and open space and landscaped areas adjacent to the street. If implementation studies indicate that Class II bikeways cannot be constructed in certain areas, Class III bikeways could be the appropriate alternative, and it is possible that in certain instances pavement restriping could allow wider curbside travel lanes providing more room for motorists and cyclists.

- **Class III** facilities are bikeways that share the existing roadway lanes with motor vehicles. There are few, if any, bikeway pavement markings associated with Class III facilities, and frequently the roadway simply is signed as a bicycle

route. Slight widening of outside travel lanes by two to four feet is preferred and it is critical that the pavement edges be property maintained. Also, drainage grates and other hazards to cyclists should be replaced or, if that is not possible, warning signs and pavement markings placed accordingly.

More recent guidelines no longer use the three class typology, but since many members of the public understand it, and because the new terminology is not inconsistent with the old, it is used here for reference purposes and to provide a reasonable concept of the intended facility development. As the projects move from planning to design, specific decisions will need to occur and should be based on the most recent policy guidance available.

Several bikeways are shown on the Bikeway Element as being the responsibility of the National Park Service. These are being addressed by the Park Service in a series of planning documents specifically related to bicycle and pedestrian access within park boundaries. These documents will be available directly from the Colonial National Historical Park as they are issued.

The 1991 AASHTO "Guide for the Development of Bicycle Facilities" contains the following advice on page 11:

> *To varying extents, bicycles will be ridden on all highways where they are permitted. All new highways [and major reconstruction of old highways], except those where bicyclists will be legally prohibited, should be designed and constructed under the assumption that they will be used by bicyclists. Bicycle-safe design practices . . . should be followed to avoid the necessity for costly subsequent improvements.*

Finally, even the most well-planned bicycle transportation network will fail to achieve its potential if destinations are not bicycle friendly. Secure bicycle parking facilities and shower/changing facilities at the work end are almost mandatory for bicycle commuting to be successful. Secure parking facilities are necessary for all other trips.

PEDESTRIAN FACILITIES

Given the regional nature of this plan and the relative short distance, and consequent local nature of walking trips, it is not realistic to try to develop a regional map showing a planned pedestrian network. According to the "The National Bicycling and Walking Study" released in early 1994, approximately seven percent of all trips, and four percent of work trips, are made by walking. However, it has also been noted that localities which aggressively promote walking by providing attractive and safe pedestrian facilities can increase those percentages dramatically. Walking as a transportation mode offers many positive benefits:

- Individual health and fitness.

- Economic savings.
- Energy savings.
- Environmental benefits.
- Reduced health care costs.
- Transportation system benefits.
- Parking benefits.

The single most critical factor in the initial decision about whether or not to walk is distance. On average, trip distances of one mile or less are considered reasonable for walking by a majority of people. As the trip becomes shorter, people are more and more likely to walk. This suggests that pedestrian facilities are most important in fairly close proximity of trip origins and destinations such as within neighborhoods, public areas and use facilities and commercial areas together with reasonable interconnections.

Once a decision is made that walking is feasible, the next consideration is the potential trip barriers, safety being the foremost such barrier. This suggests that a set of design standards may be needed to ensure that pedestrian facilities convey a sense of safety and security. Sidewalk width, separation from travel ways, and illumination appear to be the most important factors to consider.

Each community must determine what standards, if any, to use, for pedestrian facilities, but the following guidance may be an appropriate point from which to begin discussion.

- **Sidewalk Width:** Minimum of four feet, increasing as expected pedestrian volumes increase.

- **Sidewalk-Travel Lane Separation:** No separation is necessary for residential access streets and minor collectors. Separation should increase in direct relationship to traffic volumes and speeds for major collector and higher order streets.

- **Sidewalk Location:** Consideration of sidewalk installation should be given along any non-limited access roadway with 1,000 vehicles per day or more especially within one mile of major productions/attractions (e.g., libraries, schools, shopping areas, multi-family residential, recreation areas, etc.). Furthermore, pedestrian facilities should be considered within residential areas, office parks, and retail concentrations in order to encourage walking for short local trips.

- **Illumination:** Pedestrian facilities should be illuminated in accordance with adopted local standards.

- **Interconnection:** Structures facilitating pedestrian crossings of major barriers (e.g., interstate highways, rail facilities, etc.) should occur at two-mile intervals or less. Such structures need not be exclusively for pedestrian use, but should

accommodate pedestrians at least as safely as the pedestrian facilities leading to it.

As with bikeways, the objective is to try to make all transportation arteries and corridors more pedestrian friendly.

FREIGHT

Freight movement in and around Hampton Roads is hampered by topography and geography just as is passenger movement. Transportation plans often assume that if traffic moves effectively, so will freight. This, however, completely ignores rail, water, and air modes of freight movement and the differences between traffic and freight movement in terms of needs and usage patterns. Further, intermodal transshipment points are critical to freight movement; points very different from the intermodal points serving person trips.

The RTP envisions that a freight rail link will be considered as part of any future crossing of the Hampton Roads. If necessary, this link could be separated from the passenger/commuter rail link also envisioned as a part of this plan. The purpose for such a linkage is to connect the ports of Hampton Roads and allow cargoes to be moved between the ports. This will also overcome the apparent inefficiencies of having CSX Transportation serve Newport News Marine Terminal but not Norfolk International Terminal or Portsmouth, which are currently served by Norfolk Southern.

Improving the rail connections with and between the port facilities may reduce the need for roadway improvements at the front gates of the terminals. If this is not the case, it may also be necessary to construct spot improvements such as grade separations. Finally, aggressive off-peak scheduling of transshipments should be considered to alleviate conflicts.

TRANSPORTATION DEMAND MANAGEMENT

Historically, the focus of attention for transportation planning professionals was the congestion created by commuter trips in the Central Business District (CBD). However, due to the suburbanization of America, the number of suburban workers commuting within the suburban areas is now twice the number commuting to CBDs. The resulting transportation problems in commuter corridors, from the suburbs to the CBD, and between suburbs, require a comprehensive, multi-modal and multi-disciplined approach if congestion is to be addressed. Transportation Demand Management (TDM) offers such an approach to the problem of congestion.

Transportation Demand Management involves a combination of strategies to reduce and control the growth in demand for the use of automobiles, particularly with regard to SOVs. Strategies include, but are not limited to, ridesharing programs, vanpooling,

alternative work schedules, pricing policies, parking policies, traffic engineering management, and land use strategies.

At present, the TDM strategies used in Hampton Roads include ridesharing and activities that promote and support ridesharing. The existing program includes the following basic elements:

- **Areawide Rideshare Marketing** uses various mass communication media to communicate the features and benefits of ridesharing to the public. Both personal and community benefits must be communicated. Extensive public and community relations is also needed.

- **Employer Based Rideshare Programs** are basic to the ridesharing program. Employer support of the program provides an excellent opportunity to reach more individuals and increases the ability to provide matches for people who work together and live relatively near each other.

- **Rideshare Matching Services** help commuters who want to join or form a carpool or vanpool find rideshare partners. Computerized programs provide the name, workplace, home destination, and phone number of commuters who have expressed interest in ridesharing.

- **High Occupancy Vehicle (HOV) Lanes** and other priorities are established to provide an incentive for commuters to rideshare. Travel is generally faster for HOV's on these congestion free lanes.

- **Express Bus Service** is provided to major employment centers from large concentrations of employee origins. Express bus service is usually offered in peak morning and evening hours only and from park & ride facilities.

- **Park & Ride** lots can be either formal or a joint use venture. Formal park & ride lots are built expressly for commuters to have a place to park their cars and catch a ride to work in a carpool, vanpool, or express bus. Joint use park & ride sites are often developed cooperatively with a shopping center and usually are located near high residential concentrations and expressway interchanges.

- **Guaranteed Ride Program** is for ridesharers who need transportation back to their point of origin in the event of an emergency or unexpected change in their work shift. Usually a taxi cab is dispatched with the ridesharer either paying a nominal fee or paying the entire fare and submitting a voucher for reimbursement through a rideshare agency.

- **Van Leasing** assists rideshare groups in saving money on fuel, auto maintenance and insurance. Vans are leased to groups of 10-15 riders living and working near each other. The lease costs are reasonable with each rider

contributing towards the costs. Often the driver of the van rides free in exchange for driving each day.

- **Commuter Check Program** is available to commuters whose employers participate in the program. This program is based on a federal tax code which states that an employer may contribute up to $60 per month to each employee for their transit and vanpool commute costs.

The advent of HOV lanes in Hampton Roads is part of an overall program to increase vehicle occupancy thereby increasing person trips while decreasing vehicle trips. It is not the single answer, but has an important role in concert with many other solutions. TDM related programs are typically most effective for home-to-work trips and, as a consequence, has somewhat limited application. However, since its application period usually overlaps the peak period of travel, its value should not be underestimated.

Like many other possible congestion reducing techniques, Transportation Demand Management cannot be accomplished by the public sector alone. The private sector must be an active partner in the process, providing support and incentives for commuters to abandon their single occupant automobile. Additional TDM strategies such as preferential parking and pricing policies for non-SOVs, flexible working hours and others can be incorporated into the existing program to increase its effectiveness. The Hampton Roads Planning District Commission is beginning work, in cooperation with the transit agencies, on the development of a comprehensive TDM program for the region. When developed, this program is expected to incorporate many additional TDM strategies into the existing program. It is expected that some strategies will be recommended for implementation on a corridor or a site specific basis, while others will be recommended for regional application.

IMPLEMENTATION

The concepts contained in this plan need to be considered during all discussions of transportation systems and projects. Specific projects will be implemented via the Transportation Improvement Program (TIP) annually adopted by the Metropolitan Planning Organization after extensive opportunities for public participation and input.

APPENDIX A

Metropolitan Transportation Planning Process: Transportation Plan

§ 450.322 Metropolitan Transportation Planning Process: Transportation Plan.

(a) The metropolitan transportation planning process shall include the development of a transportation plan addressing at least a twenty year planning horizon. The plan shall include both long-range and short-range strategies/actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods. The transportation plan shall be reviewed and updated at least triennially in nonattainment and maintenance areas and at least every five years in attainment areas to confirm its validity and its consistency with current and forecasted transportation and land use conditions and trends and to extend the forecast period. The transportation plan must be approved by the MPO.

(b) In addition, the plan shall:

(1) Identify the projected transportation demand of persons and goods in the metropolitan planning area over the period of the plan;

(2) Identify adopted congestion management strategies including, as appropriate, traffic operations, ridesharing, pedestrian and bicycle facilities, alternative work schedules, freight movement options, high occupancy vehicle treatments, telecommuting, and public transportation improvements (including regulatory, pricing, management, and operational options), that demonstrate a systematic approach in addressing current and future transportation demand;

(3) Identify pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C. 217(g);

(4) Reflect the consideration given to the results of the management systems, including in TMAs that are nonattainment areas for carbon monoxide and ozone, identification of SOV projects that result from a congestion management system that meets the requirements of 23 CFR part 500, subpart E;

(5) Assess capital investment and other measures necessary to preserve the existing transportation system (including requirements for operational improvements, resurfacing, restoration, and rehabilitation of existing and future major roadways, as well as operations, maintenance, modernization, and rehabilitation of existing and future transit facilities) and make the most efficient use of existing transportation facilities to relieve vehicular congestion and enhance the mobility of people and goods;

(6) Include the design concept and scope descriptions of all existing and proposed transportation facilities in sufficient detail, regardless of the source of funding, in nonattainment and maintenance areas to permit conformity determination under the U.S. EPA conformity regulations of 40 CFR part 51. In all areas, all proposed improvements shall be described in sufficient detail to develop cost estimates;

(7) Reflect a multimodal evaluation of the transportation, socioeconomic, environmental, and financial impact of the overall plan, including all major transportation investments in accordance with § 450.318;

(8) For major transportation investments for which analyses are not complete, indicate that the design concept and scope (mode and alignment) have not been fully determined and will require further analysis. The plan shall identify such study corridors and subareas and may stipulate either a set of assumptions (assumed alternatives) concerning the proposed improvements or a no-build condition pending the completion of a corridor or subarea level analysis under § 450.318. In nonattainment and maintenance areas, the set of assumed alternatives shall be in sufficient detail to permit plan conformity determinations under the U.S. EPA conformity regulations (40 CFR part 51);

(9) Reflect, to the extent that they exist, consideration of: the area's comprehensive long-range land use plan and metropolitan development objectives; national, State, and local housing goals and strategies, community development and employment plans and strategies, and environmental resource plans local, State, and national goals and objectives such as linking low income households with employment opportunities; and the area's overall social, economic, environmental, and energy conservation goals and objectives;

(10) Indicate, as appropriate, proposed transportation enhancement activities as defined in 23 U.S.C. 101(a); and

(11) Include a financial plan that demonstrates the consistency of proposed transportation investments with already available and projected sources of revenue. The financial plan shall compare the estimated revenue from existing and proposed funding sources that can reasonably be expected to be available for transportation uses, and the estimated costs of constructing, maintaining, and operating the total (existing plus planned) transportation system over the period of the plan. The estimated revenue by existing revenue source (local, State, and Federal and private) available for transportation projects shall be determined and any shortfalls identified. Proposed new revenues and/or revenue sources to cover shortfalls shall be identified, including strategies for ensuring their availability for proposed investments. Existing and proposed revenues shall cover all forecasted capital, operating, and maintenance costs. All cost and revenue projections shall be based on the data reflecting the existing situation and historical trends. For nonattainment and maintenance areas, the financial plan shall address the specific financial strategies required to ensure the implementation of projects and programs to reach air quality compliance.

(c) There must be adequate opportunity for public official (including elected officials) and citizen involvement in the development of the transportation plan before it is approved by the MPO, in accordance with the requirements of § 450.316(b)(1). Such procedures shall include opportunities for interested parties (including citizens, affected public agencies, representatives of transportation agency employees, and private providers of transportation) to be involved in the early stage of the plan development/update process.

The procedures shall include publication of the proposed plan or other methods to make it readily available for public review and comment and, in nonattainment TMAs, an opportunity for at least one formal public meeting annually to review planning assumptions and the plan development process with interested parties and the general public. The procedures also shall include publication of the approved plan or other methods to make it readily available for information purposes.

(d) In nonattainment and maintenance areas for transportation related pollutants, the FHWA and the FTA, as well as the MPO, must make a conformity determination on any new/revised plan in accordance with the Clean Air Act and the EPA conformity regulations (40 CFR part 51).

(e) Although transportation plans do not need to be approved by the FHWA or the FTA, copies of any new/revised plans must be provided each agency.

APPENDIX B

The Fifteen Planning Factors

TABLE B-1

THE FIFTEEN PLANNING FACTORS

Federal Register Requirements	Hampton Roads' Responses
(1) Preservation of existing transportation facilities and, where practical, ways to meet transportation needs by using existing transportation facilities more efficiently;	The transportation planning process, as indicated in the flow chart (see Appendix C), will incorporate all recommendations from the six management systems. The focus of these state-developed management systems is to, in part, address the maintenance needs of the region's transportation capital resources. The congestion management system monitors corridor efficiency. Together the systems insure that maintenance and efficiency of the system come before capital expenditures for new capacity. This is a policy that has been followed by the State for some time.
(2) Consistency of transportation planning with applicable Federal, State, and local energy conservation programs, goals, and objectives;	The goals and objectives outlined in section two of this report emphasize the importance of planning and implementing transportation related energy conservation measures. In addition, the goals of the CMS address the need for energy conservation by directly focusing on the development of policies and procedures to reduce the region's reliance on single occupancy vehicles. The region is also examining land use strategies at work sites. Concentrating services and retail activities at work sites may be effective at reducing the need for stops on the way to work. It appears that one of the reasons for the decline in public transportation and ridesharing over the last decade is a result of the increase in trip chaining during the work trip. New designs at work sites may be effective in reducing stops on the way to work, as well as reduce the increase in noon-time vehicle trips. Successfully implemented pedestrian friendly work locations will increase the region's effectiveness in attracting more commuters to public transportation.

TABLE B-1

THE FIFTEEN PLANNING FACTORS (continued)

Federal Register Requirements	Hampton Roads' Responses
(3) The need to relieve congestion and prevent congestion from occurring where it does not yet occur including: (i) The consideration of congestion management strategies or actions which improve the mobility of people and goods in all phases of the planning process; and (ii) In TMAs, a congestion management system that provides for effective management of new and existing transportation facilities through the use of travel demand reduction and operation management strategies (e.g., various elements of IVHS) shall be developed in accordance with §450.320;	The congestion management system will be fully operational by October 1995. An Advisory Task Force is actively working on the programs and procedures. Periodic status reports keep the transportation community and the public aware of the region's efforts.

TABLE B-1

THE FIFTEEN PLANNING FACTORS (continued)

Federal Register Requirements	Hampton Roads' Responses
(4) The likely effect of transportation policy decisions on land use and development and the consistency of transportation plans and programs with the provisions of all applicable short- and long-term land use and development plans (the analysis should include projections of metropolitan planning area economic, demographic, environmental protection, growth management, and land use activities consistent with metropolitan and local/ central city development goals (community, economic, housing, etc.), and projections of potential transportation demands based on the interrelated level of activity in these areas);	There are several documents referred to in Sections Two and Three of this report that describe in detail the forecast methodology and the small area allocation process used to develop the socioeconomic inputs to the transportation planning process. The allocation of development to transportation zones is based on the comprehensive plans, including environmental elements, of the local jurisdictions. In addition, current wetlands maps were used to assess undeveloped land within a transportation zone. The transportation planning flow chart (Appendix C) indicates the overriding importance of local land use policy in the development of the RTP. That chart shows that the transportation policy is driven by the communities' comprehensive land use plans.
(5) Programming of expenditures for transportation enhancement activities as required under 23 U.S.C. 133;	The region is actively involved in the state-managed process for developing proposals and implementing projects. The region's jurisdictions have been the recipient of funds for numerous projects.

TABLE B-1

THE FIFTEEN PLANNING FACTORS (continued)

Federal Register Requirements	Hampton Roads' Responses
(6) The effects of all transportation projects to be undertaken within the metropolitan planning area, without regard to the source of funding (the analysis shall consider the effectiveness, cost effectiveness, and financing of alternative investments in meeting transportation demand and supporting the overall efficiency and effectiveness of transportation system performance and related impacts on community/ central city goals regarding social and economic development, housing, and employment);	A review of Section One of this report reveals the importance of supporting performance measures that directly relate efficiency and effectiveness. The objectives listed in Section One are primarily concerned with identifying measurable performance objectives/ measures to carry out the region's quality of life, economic and environmental goals. In addition, the region is actively involved in implementing a full scale transportation demand management program. The local public transportation agencies with the support of VDRPT, VDOT, HRPDC, local jurisdictions, and active public participation are managing this program.

TABLE B-1

THE FIFTEEN PLANNING FACTORS (continued)

Federal Register Requirements	Hampton Roads' Responses
(7) International border crossings and access to ports, airports, intermodal transportation facilities, major freight distribution routes, national parks, recreation areas, monuments and historic sites, and military installations (supporting technical efforts should provide an analysis of goods and services movement problem areas, as determined in cooperation with appropriate private sector involvement, including, but not limited to, addressing interconnected transportation access and service needs of intermodal facilities;	The import and export of goods and the immigration and emigration of people in this costal community is closely controlled by the Coast Guard, the Navy, the Immigration Service and the Customs Service. Their policies and procedures are controlled at the Federal level. The Intermodal Management System developed jointly by HRPDC, the state transportation agencies, FHWA, the local jurisdictions, transit agencies, and other private modal agencies emphasizes the importance of international, interstate and interregional movement of goods and people. The economic goals define the region's interest in coordinating public and private sector activities with regard to planning intermodal movements. There are several studies and projects underway that will improve access to water and air ports. Defense access is critical to this region. The Navy is an active member of the region's technical committee. State, regional and local technical and policy committee members work closely with the many military installations in Hampton Roads to insure that routine and emergency commuter access is maintained at acceptable levels of service. In addition, the Navy Supply Depot requires efficient and effective access for the movement of goods to their facilities. Adequate freight access to all the region's military activities is of regional importance.

TABLE B-1

THE FIFTEEN PLANNING FACTORS (continued)

Federal Register Requirements	Hampton Roads' Responses
(8) Connectivity of roads within metropolitan planning areas with roads outside of those areas;	The region, localities and the state transportation agencies are actively investigating access into this region by all modes. Airport and marine port studies are under way. All major thoroughfares into the region have either just been improved, are under construction are or actively being examined through major investment studies. Road improvements include the Route 168 study linking North Carolina with the region. The state is also examining improvements in the Richmond to Peninsula Corridor. VDOT is continuing to examine evacuation alternatives for the region. The state recently completed a major improvement on Route 58 between Emporia and Suffolk. The regional plan calls for widening Route 17 in Chesapeake and Route 13 in Suffolk. The Route 13 widening will provide Suffolk with 4-lane access from the north, west, south and east. The Gloucester to York County bridge is being widened to 4 lanes. In addition, Route 17 from Gloucester Court House to the Newport News city line is being improved.
(9) Transportation needs identified through the use of the management systems required under 23 U.S.C. 303 (strategies identified under each management system will be analyzed during the development of the transportation plan, including its financial component, for possible inclusion in the metropolitan plan and TIP);	The six management systems are currently in development. Organizational meetings have been held for each system. The MPO staff has been actively involved in the design and development of several of these systems. The state transportation agencies and the MPO have detailed information on the goals, objectives and design methodologies to be used in building these systems. Implementation is under way in many of the systems.
(10) Preservation of rights-of-way for construction of future transportation projects, including future transportation corridors;	Within environmental guidelines, the state and local governments are attempting to preserve rights-of-way of critical importance. The nature of the environmental review process limits the willingness of local and state agencies to secure the valuable corridors. The MPO has identified the important corridors in the region. That document is available for review at the HRPDC office.

TABLE B-1

THE FIFTEEN PLANNING FACTORS (continued)

Federal Register Requirements	Hampton Roads' Responses
(11) Enhancement of the efficient movement of freight;	The Hampton Roads area was built on the efficient movement of freight. One of the crowning missions of the regions 2007 plan is to insure that essential resources are secured to maintain and improve this region's competitive edge with other coastal communities. VDOT is currently conducting the Hampton Roads Crossing Study. A significant component of the study is the movement of freight. Projects are planned to improve rail access to the Norfolk International Terminal. The Pinners Point improvement is at the top of the state's most active list. This project will provide needed access into Portsmouth Marine Terminal. The Newport News Marine Terminal received a boost in 1991 with the opening of Interstate 664. The river crossing provides improved access from South Hampton Roads and North Carolina to the Newport News Port. Finally, the region is examining the feasibility of connecting the Churchland area in Portsmouth with Norfolk close to the Naval Base. This facility would serve as an inner beltway that could provide controlled access facilities between the three state ports.
(12) The use of life-cycle costs in the design and engineering of bridges, tunnels, or pavement (operating and maintenance costs must be considered in analyzing transportation alternatives);	VDOT performs this analysis annually within their Statewide Management System. The transit operators also utilize life cycle costs in developing capital needs information annually for input to the development of the TIP. The Statewide Needs assessment includes 20 year needs for both Capital and Operating and Maintenance costs.

TABLE B-1

THE FIFTEEN PLANNING FACTORS (continued)

Federal Register Requirements	Hampton Roads' Responses
(13) The overall social, economic, energy, and environmental effects of transportation decisions (including consideration of the effects and impacts of the plan on the human, natural and man-made environment such as housing, employment and community development, consultation with appropriate resource and permit agencies to ensure early and continued coordination with environmental resource protection and management plans, and appropriate emphasis on transportation-related air quality problems in support of the requirements of 23 U. U.S.C. 109(h), and section 14 of the Federal Transit Act (49 U.S.C. 1610), section 4(f) of the DOT Act (49 U.S.C. 303) and section 174(b) of the Clean Air Act (42 U.S.C. 7504(b)));	This 2015 RTP is in conformity with the Clean Air Act. Preparation of the socioeconomic data used as input into the travel demand model was based on the local jurisdictions' comprehensive plans and statewide population control totals. Those plans include an environmental element. In addition, the wetlands maps were used to limit development in transportation zones with undeveloped wetlands. The goals defined in Section One include consideration for quality of life, the economy and the environment. The region, and its staff of environmental and economic planners provides the necessary support to insure that transportation improvement decisions are made with a full understanding of the long-term consequences of these decisions. Federal and state regulatory agencies are active participants in our transportation and environmental efforts.

TABLE B-1

THE FIFTEEN PLANNING FACTORS (continued)

Federal Register Requirements	Hampton Roads' Responses
(14) Expansion, enhancement, and increased use of transit services; and	The RTP has dedicated $170 million (including 100% and 47%, respectively, of the total CMAQ and STP Regional funds expected to be available) to support alternative transportation modes. Public transportation and transportation demand management will be funded. The CMS process is currently defining corridor needs which could be met by public transportation. In addition, the local transit agencies are actively exploring the implementation of a continuous source of revenue. There are currently three studies underway examining the use of light rail transit and high speed rail. The studies include the Norfolk to Virginia Beach Study, the CSX corridor study in Newport News and the Richmond to Peninsula high speed rail study. The HRPDC is currently in phase two of a Transportation Demand Management study that will develop policies and procedures to meet the regions commuter needs. In addition, TRT and PENTRAN have completed Transportation Development Plans that address the region's 5 year needs. The JCCT is about to embark on a strategic planning process to determine how it can meet the public transportation needs of its suburban community. This region also has a series of private haulers that have provided commuter bus service to the military bases and many of the private shipyards. This service has been operating, without government subsidy, since World War II. Both TRT and PENTRAN provide express commuter service to major employment centers. TRT service is in several suburban locations to the Norfolk Naval Base and Downtown Norfolk. PENTRAN, has for a long time, provided a variety of commuter bus service options to the Newport News Shipyard. PENTRAN has recently expanded it service time to meet the needs of evening users. TRT has been actively involved in improving their timed transfer

TABLE B-1

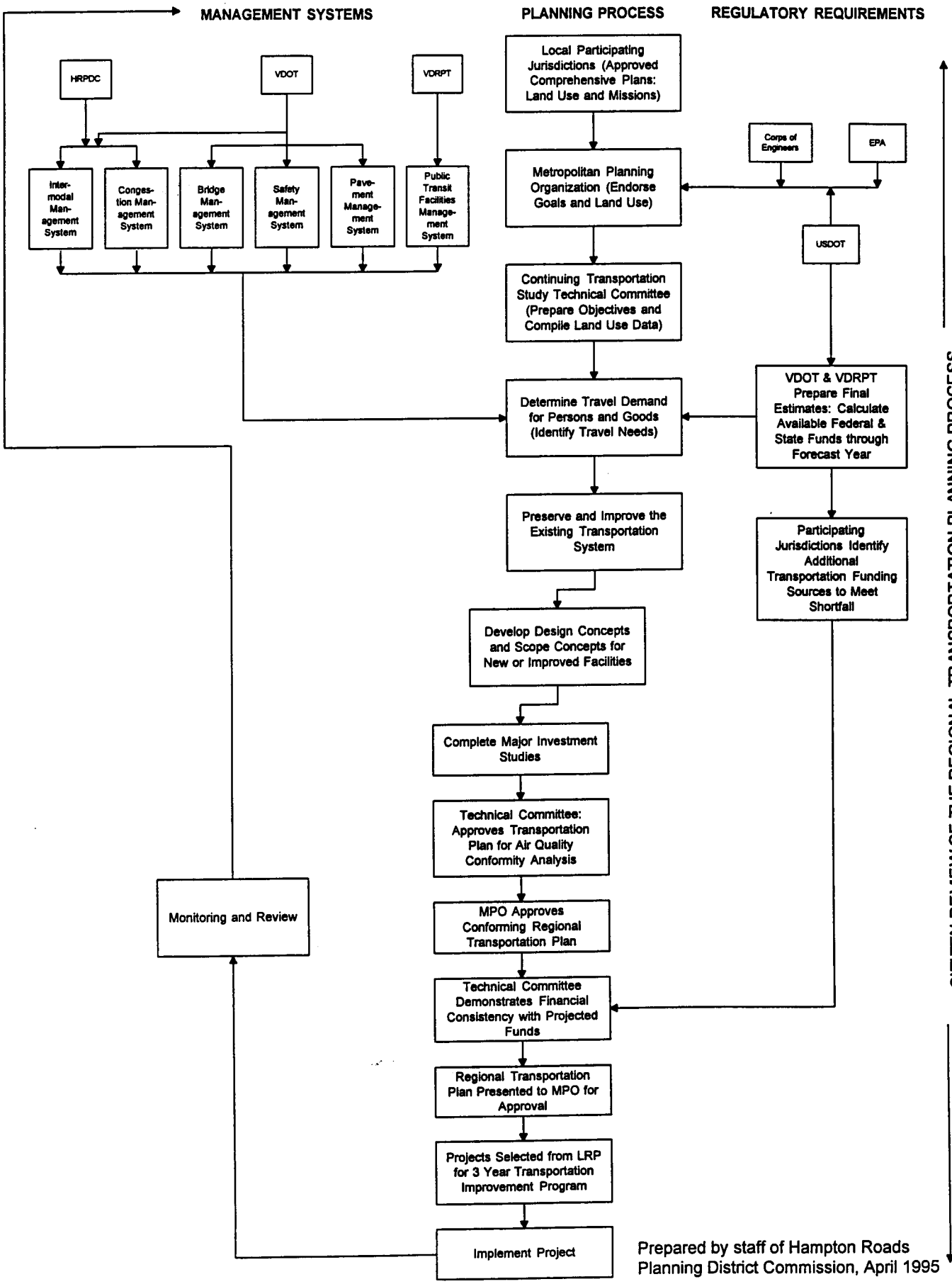
THE FIFTEEN PLANNING FACTORS (continued)

Federal Register Requirements	Hampton Roads' Responses
(15) Capital investments that would result in increased security in transit systems.	This factor will be addressed in the Public Transit Facilities Management System currently being developed. In addition, the transit agencies address security within their transit systems on an ongoing basis as part of the Transit Development Plan process.

APPENDIX C

Transportation Planning Process Flowchart

FIGURE C-1
Regional Transportation Planning Process
Hampton Roads, Virginia



Prepared by staff of Hampton Roads Planning District Commission, April 1995

APPENDIX D

Hampton Roads Public Involvement Procedure

HAMPTON ROADS PUBLIC INVOLVEMENT PROCEDURE

1. Introduction

On October 28, 1993, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) jointly issued a Final Rule on metropolitan and statewide transportation planning. The purpose of the rule is to identify what activities and products will be expected of States and Metropolitan Planning Organizations (MPO) as part of their federally-mandated transportation planning process. These transportation planning activities are required to enable states and urban areas to program and use federal funds for transportation projects and improvements.

One of the changes brought to transportation planning as a result of passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 is the requirement of an enhanced public involvement process for all MPOs, particularly those in nonattainment areas as defined by the Clean Air Act Amendments of 1990.

2. Purpose

The purpose of this Hampton Roads Public Involvement Procedure is to document and give formal sanction to the process which the Hampton Roads MPO has heretofore unofficially carried out to afford the public the opportunity to participate in the development of the transportation plans and programs of the Hampton Roads region. The intent of this procedure is to seek out and consider the needs of those traditionally underserved by existing transportation systems, including, but not limited to, low income and minority households, and to ensure that the public as a whole will have an early and continuing involvement in the development of plans and the TIP in accordance with requirements of ISTEA. This procedure shall provide for consultation with appropriate and interested parties at both the preplanning and draft product stages of development of the regional transportation elements, as they are developed, and the Transportation Improvement Program which describes the implementation staging of the transportation plans.

3. Elements

The Hampton Roads Public Involvement Procedure will utilize and build upon the public involvement process which has been a part of the development of the transportation plans and programs of the Hampton Roads region. This procedure is based upon notification of intent to develop specific transportation plans and programs, as well as making those plans and programs available for public review and comment prior to their adoption. The Hampton Roads Public Involvement Procedure is described in terms of four major categories which are highlighted as follows:

Ongoing Activities

- The *Hampton Roads Review*, a quarterly publication of the Hampton Roads Planning District Commission, contains an insert which describes transportation developments occurring within the Hampton Roads region. The *Hampton Roads Review* is a continuing source of information on transportation plans and programs which will be utilized to inform the public of the status and progress of the transportation plans and programs underway in the region. The mailing list for the *Hampton Roads Review*, which currently exceeds 1,600 civic organizations, agencies, associations and individuals, will be further enhanced in an effort to reach citizens of all socioeconomic strata, including low income and minority households and those who may not be adequately served by existing transportation systems. Each locality will be solicited to provide HRPDC with a mailing list of all neighborhood, homeowner, or civic associations which it has knowledge of. In addition, the department of human or social services for each locality will be contacted for assistance in identifying specific organizations, associations or groups who represent families or individuals whose social or economic status may preclude them from utilizing available transportation systems. The special effort to identify additional segments of the Hampton Roads population who may be transportation underserved will result in a distribution of the *Hampton Roads Review* newsletter which will be even more comprehensive than the current list of more than 1,600 addresses.

- The HRPDC transportation staff is available on a full-time basis to respond to direct questions and inquiries from citizens concerning transportation plans, programs, and the transportation planning process for the region, as well as specific transportation projects. The staff also is also available to make presentations at the request of local civic organizations and routinely provides transportation related information to the local print and electronic media.

- The HRPDC maintains an extensive library of transportation related materials which are available for use by the public during the normal workday.

- The operators of public transportation services in Hampton Roads, Pentran, TRT, and James City County Transit, carry out formal procedures, including public hearings, to seek input from their clients and the general public in regard to proposed service changes and improvements each year, as well as the capital and operating assistance required to carry out the proposed service changes and improvements. During FY-95, Pentran and TRT will develop a comprehensive public participation process for public transportation in Hampton Roads which will provide input into and enhance this Public Involvement Procedure. The results of this effort by Pentran and TRT will be incorporated, as appropriate, into the Hampton Roads Public Involvement Procedure.

- Reference is made throughout this Public Involvement Procedure to the use of public notices in newspapers of general circulation. In all cases, these public notices will be in the form of display ads printed in normal type styles, and published in the Local or Metro sections of the newspapers. Newspapers of general circulation in Hampton

Roads include the *Daily Press* and the *Virginian-Pilot* newspapers whose circulation encompasses the entire Hampton Roads region, and the *Journal and Guide*, a minority owned newspaper of general circulation throughout Hampton Roads.

Long Range Plan

- The *Hampton Roads Review*, quarterly newsletter of the HRPDC, will be utilized on an ongoing basis to inform its readers of the status of the transportation planning process and progress of the transportation plans underway.

- During those years in which an element of the Transportation Plan is to be developed or updated, a public notice will be published in the area newspapers advising of the intention to develop or update such plans. Such a notice will be published approximately six months prior to the anticipated completion of the draft plan or update in order to afford the public ample opportunity to provide input to the development or update of the plan.

- In order to solicit comments from the public on proposed transportation plans or plan updates, public information meetings will be held following development of the draft plan, but prior to adoption of the plan by the MPO. The times and locations of these public information meetings will be contained in a public notice to be published in the area newspapers. Such meetings will normally be held during the last quarter of the fiscal year and will be preceded by a two-week period during which the proposed documents will be available for review and inspection at multiple sites which are accessible to all individuals during daytime and evening hours.

- When significant written or oral comments are received on the draft transportation plan, a summary, analysis, and report on the disposition of comments shall be submitted to the FHWA and the FTA by the MPO with the transportation plan and be made available to other parties upon request. Similarly, if the transportation plan is significantly different than the one which was made available for public comment by the MPO and raises new material issues which interested parties could not reasonably have foreseen from the MPO notifications, an additional opportunity for public comment on the revised plan will be provided prior to its adoption by the MPO.

- Concurrent with development of metropolitan transportation plans is the development of a statewide transportation plan. The Virginia Department of Transportation is charged with development and perpetuation of the statewide transportation plan and will follow a similar process, including public notice of intent to develop a statewide plan, public meetings to solicit input, and public input to the draft plans, all of which provide the citizens of Hampton Roads additional opportunity to participate in the development of transportation plans for the region.

Transportation Improvement Program

- As in development of the transportation plans for the region, the *Hampton Roads Review*, with its extensive mailing list of organizations, agencies and interested individuals, will be used as a tool to disseminate information regarding development of the TIP.

- The development of the Transportation Improvement Program requires adherence to a specific time frame in order to have an approved TIP by July 1 of each year. The TIP development process will be initiated during the third quarter of each fiscal year and will begin with a notice in the area newspapers soliciting public input during the development of the draft TIP. This notice will normally be published in February of each year.

- An integral input to the TIP is the preallocation public hearings held by the Virginia Commonwealth Transportation Board each spring to receive public input prior to the development of the State Six Year Program of transportation improvements which in turn become inputs to the Metropolitan TIP and the State TIP. The public is advised by a public notice published in area newspapers of the specific time and location of the preallocation public hearing. The preallocation hearings provide a forum for both oral and written comments from the public on the implementation of needed transportation improvements.

- In order to seek public input prior to adoption of the TIP, public notice will be made in the area newspapers of the availability of the draft TIP for review and comment at public information meetings to be conducted in various locations within the region. Such meetings may be held in conjunction with those associated with proposed plans or plan updates.

- When significant written or oral comments are received on the draft TIP, a summary, analysis, and report on the disposition of comments shall be submitted to the FHWA and the FTA by the MPO with the TIP and be made available to other parties upon request. Similarly, if the TIP is significantly different from the one which was made available for public comment by the MPO and raises new material issues that interested parties could not reasonably have foreseen from the MPO notifications, an additional opportunity for public comment on the revised TIP will be provided.

- Many local units of government, in the course of developing their capital improvement programs and inputs to the metropolitan TIP, conduct formal public hearings on their individual components to the metropolitan TIP, thereby providing additional opportunity for public involvement in the development of transportation programs for the region.

- The final opportunity for formal public input to development of transportation improvement programs for the Hampton Roads region occurs when the Commonwealth Transportation Board advertises and conducts a statewide allocation

public hearing before it sets the final allocation of funds to projects which constitute the metropolitan TIP, and in turn, the State TIP.

Air Quality Conformity Analysis

- The *Hampton Roads Review* will be utilized as an ongoing resource for the dissemination of information regarding the air quality conformity analysis to be conducted for the transportation plans and programs of the Hampton Roads nonattainment area each year.

- Prior to beginning the analysis of the conformity of the region's plans and programs to the ambient air quality standards, the MPO will publish a public notice advising citizens of its intent to develop an air quality conformity analysis of the long range transportation plan and proposed TIP for the Hampton Roads region. This notice will normally be made in conjunction with the February notice of intent to develop the TIP.

- Following completion of the preliminary analysis of air quality conformity, a public notice will be given of the availability of those results at a public meeting. Such notice and public meeting will normally be provided in conjunction with the public notice and public meeting held in regard to the draft TIP.

4. Implementation

Upon approval of the draft document by the MPO, a public notice will be placed in the area newspapers outlining the proposed Hampton Roads Public Involvement Procedure and advising the public of the MPO's intent to formally adopt the public involvement procedures. Such public notice will provide a minimum of 45 days for public review and written comment prior to adoption of the procedures by the MPO. Following the 45 day review period and favorable disposition of any public comments, the MPO shall adopt the Hampton Roads Public Involvement Procedure for public participation in the metropolitan transportation planning and programming process in Hampton Roads. The MPO shall review its public involvement procedure annually in conjunction with its self certification process to ensure that the procedure is providing an effective means of providing for public participation in the metropolitan transportation and programming process in Hampton Roads. When the MPO revises its established public involvement procedures materially, it shall publish the new procedures and allow 45 days for written public comment before the revised procedures are adopted.

APPENDIX E

Hampton Roads District Level Population and Employment Data

TABLE E-1
HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN
SOUTHSIDE DISTRICT LEVEL POPULATION AND EMPLOYMENT DATA

District Number	District Name	1990 Total Population	2015 Total Population	1990 Total Employment	2015 Total Employment
1	South Norfolk	23,327	23,124	7,165	10,571
2	Indian River	19,371	19,352	11,934	14,826
3	Greenbrier East	14,902	26,885	10,034	18,037
4	Greenbrier West	5,274	8,621	4,173	6,990
5	Crestwood	6,039	9,496	2,482	5,332
6	Great Bridge	26,876	46,758	8,151	14,364
7	Deep Creek	12,104	15,071	2,606	6,717
8	Camelot	7,541	7,528	2,371	7,702
9	Western Branch	22,047	30,432	5,938	17,345
10	S. Chesapeake	6,048	23,146	1,696	10,152
11	S.E. Chesapeake	726	4,402	374	1,602
12	Rural Chesapeake	7,662	9,735	2,691	5,379
	Chesapeake Total	**151,917**	**224,550**	**59,615**	**119,017**
20	Sewells Point	36,945	34,914	93,412	93,475
21	Bay View East Little Creek	36,324	32,216	3,897	4,409
22	Ocean View	24,063	24,265	2,461	2,461
23	Lafayette River	24,721	24,761	9,203	9,612
24	Denby Park	17,351	16,809	7,252	7,436
25	Larrymore-Airport	10,532	10,250	5,032	5,485
26	Lamberts Point	17,691	19,222	6,641	7,085
27	Lafayette-Ballentine	10,108	9,449	1,189	1,189
28	Norview-River Oaks	21,310	20,001	10,869	12,639
29	Lake Taylor	13,339	11,432	35,435	41,357
30	Chesterfield-Ingleside	10,018	10,006	9,946	9,946
31	Berkley-Campostella	8,653	8,346	8,907	8,907
32	Brambleton-Huntersville	16,820	15,563	8,820	9,260
33	Downtown	2,029	2,413	30,855	36,100
34	Ghent	11,325	11,633	22,123	23,251
	Norfolk Total	**261,229**	**251,280**	**256,042**	**272,612**
40	Downtown	26,557	27,538	40,081	38,016
41	Manor	54,899	53,605	16,431	19,165
42	Churchland	22,451	25,040	5,042	6,756
	Portsmouth Total	**103,907**	**106,183**	**61,554**	**63,937**
50	Downtown	17,063	18,017	6,900	8,579
51	Middle Suffolk	7,571	23,062	8,858	14,614
52	Southern Suffolk	6,432	10,242	1,497	2,627
53	Northern Suffolk	10,635	26,287	1,277	14,416
54	Rural SW Suffolk	11,080	13,907	1,330	2,232
	Suffolk Total	**52,781**	**91,515**	**19,862**	**42,468**
60	Bayfront	23,852	28,428	23,202	22,838
61	Bayside	58,640	67,043	34,660	45,271
62	Little Neck	29,712	28,981	15,669	22,284
63	Great Neck	36,550	41,533	17,106	24,506
64	Oceanfront	26,459	37,419	11,224	16,524
65	Courthouse/Sandbridge	38,291	71,759	12,928	22,547
66	Holland (Oceana)	83,904	111,792	43,568	61,653
67	Kempsville	91,207	110,715	25,791	35,766
68	Rural Va. Beach	4,301	6,977	827	998

TABLE E-1

HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN

SOUTHSIDE DISTRICT LEVEL POPULATION AND EMPLOYMENT DATA

District Number	District Name	1990 Total Population	2015 Total Population	1990 Total Employment	2015 Total Employment
	Va. Beach Total	**392,916**	**504,647**	**184,975**	**252,387**
70	Northern Isle of Wight	7,840	18,519	1,211	4,874
71	Smithfield	4,689	5,093	6,819	7,501
	Isle of Wight Total	**12,529**	**23,612**	**8,030**	**12,375**
	SOUTH HAMPTON ROADS TOTAL	**975,279**	**1,201,786**	**590,078**	**762,796**
	Prepared By: HRPDC, March 1995				

SOUTH HAMPTON ROADS

DISTRICT NUMBERS AND NAMES

Chesapeake

1 South Norfolk
2 Indian River
3 Greenbrier East
4 Greenbrier West
5 Crestwood
6 Great Bridge
7 Deep Creek
8 Camelot
9 Western Branch
10 South Chesapeake
11 S.E. Chesapeake
12 Rural Chesapeake

Norfolk

20 Sewells Point
21 Bay View East Little Creek
22 Ocean View
23 Lafayette River
24 Denby Park
Larrymore-Airport
26 Lamberts Point
27 Lafayette-Ballentine
28 Norview-River Oaks
29 Lake Taylor
30 Chesterfield-Ingleside
31 Berkley-Campostella
32 Brambleton-Huntersville
33 Downtown
34 Ghent

Portsmouth

40 Downtown
41 Manor
42 Churchland

Suffolk

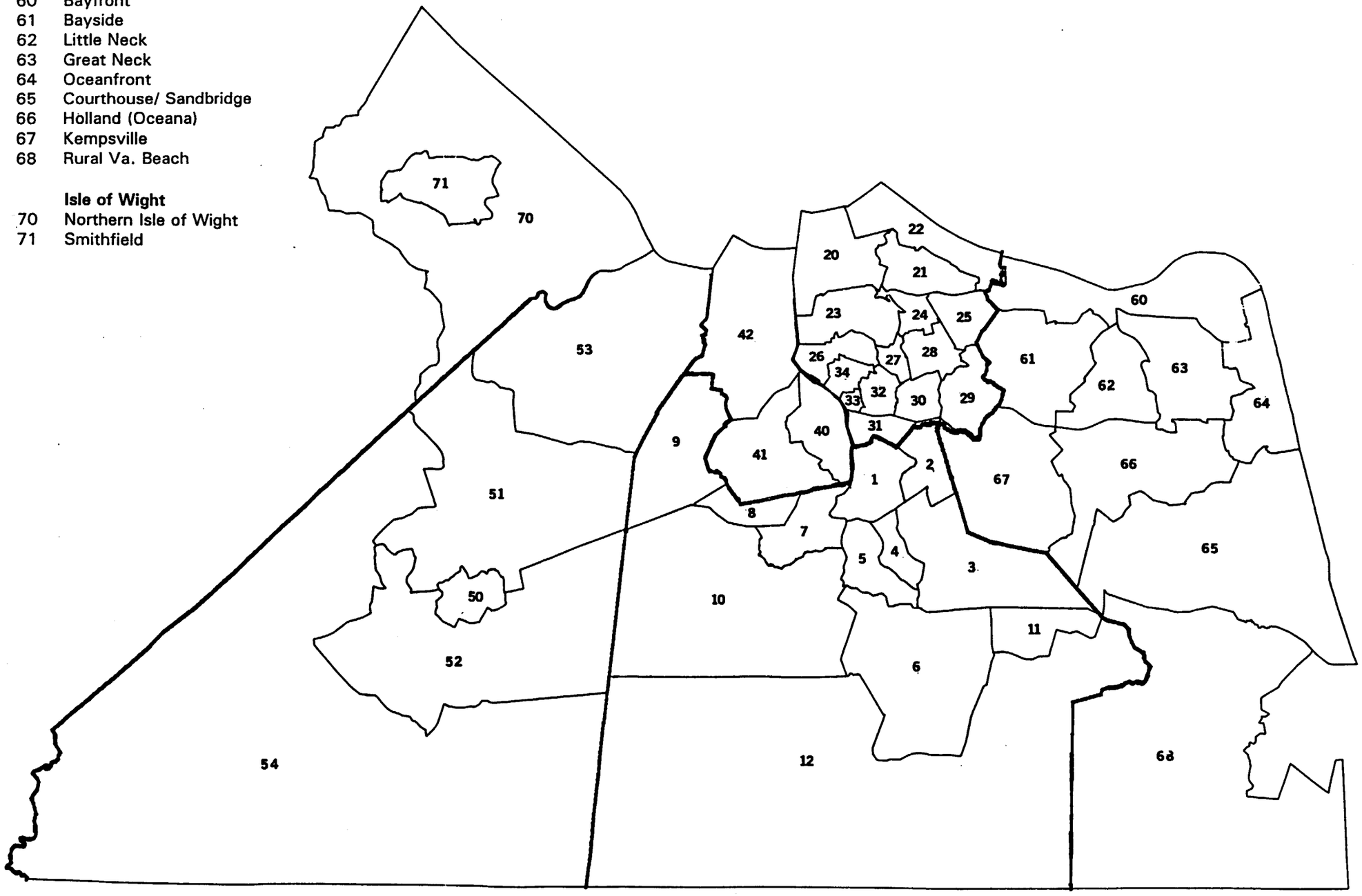
50 Downtown
51 Middle Suffolk
52 Southern Suffolk
53 Northern Suffolk
54 Rural SW Suffolk

Virginia Beach

60 Bayfront
61 Bayside
62 Little Neck
63 Great Neck
64 Oceanfront
65 Courthouse/ Sandbridge
66 Holland (Oceana)
67 Kempsville
68 Rural Va. Beach

Isle of Wight

70 Northern Isle of Wight
71 Smithfield



Prepared by: HRPDC, July 1994

0 5000 10000
Scale in Meters

TABLE E-2
HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN
PENINSULA DISTRICT LEVEL POPULATION AND EMPLOYMENT DATA

District Number	District Name	1990 Total Population	2015 Total Population	1990 Total Employment	2015 Total Employment
1	Southeast	22,834	22,744	8,035	9,650
2	Huntington	2,927	2,997	27,884	21,980
3	Copeland-Briarfield	13,213	13,129	4,093	5,970
4	Sedgefield-Morrison	16,339	16,723	5,961	6,250
5	Hilton-Riverside	22,922	24,225	13,160	14,040
6	Menchville	17,617	21,294	2,223	2,275
7	Denbigh	26,656	33,543	5,107	9,145
8	Harpersville-Kiln Creek	7,308	16,089	806	2,215
9	Oyster Point	9,642	10,951	15,365	28,085
10	Patrick Henry	2,839	3,163	6,306	9,335
11	Richneck	14,407	20,207	2,775	6,620
12	Endview-Lee Hall	3,374	10,073	962	9,650
13	Fort Eustis	9,967	9,065	12,640	12,210
	Newport News Total	**170,045**	**204,203**	**105,317**	**137,425**
20	Northampton	16,957	21,684	4,025	3,539
21	Westhampton	12,495	12,696	10,369	11,999
22	Wythe/Southampton	25,215	23,395	13,228	15,464
23	Mercury Central	11,392	9,663	10,758	16,915
24	NW Quadrant/Magruder	11,328	18,629	20,923	28,547
25	NE Quadrant/Fox Hill	41,030	38,185	4,569	3,922
26	Buckroe/Phoebus	15,376	24,606	10,330	11,926
	Hampton Total	**133,793**	**148,858**	**74,202**	**92,312**
30	Poquoson	11,005	15,535	1,593	1,877
	Poquoson Total	**11,005**	**15,535**	**1,593**	**1,877**
40	Williamsburg	11,530	14,913	13,585	16,918
	Williamsburg Total	**11,530**	**14,913**	**13,585**	**16,918**
50	Grove	7,858	9,517	11,386	14,541
51	Lake Powell	9,368	16,625	5,755	7,864
52	Jolly Pond	10,567	18,711	2,398	3,255
53	Toano	7,055	14,479	4,903	9,146
	James City County Total	**34,848**	**59,332**	**24,442**	**34,806**
60	Tabb\Grafton	28,403	37,206	6,342	8,515
61	Watershed Area	3,296	8,812	2,698	6,201
62	Yorktown	2,130	2,213	1,423	1,645
63	Federal Property	1,234	1,487	2,966	3,205
64	Williamsburg Area	7,357	9,990	2,932	9,659
	York County Total	**42,420**	**59,708**	**16,361**	**29,225**

TABLE E-2
HAMPTON ROADS 2015 REGIONAL TRANSPORTATION PLAN
PENINSULA DISTRICT LEVEL POPULATION AND EMPLOYMENT DATA

District Number	District Name	1990 Total Population	2015 Total Population	1990 Total Employment	2015 Total Employment
70	Rt. 17 Corridor	16,527	24,458	7,736	14,863
71	E/W Gloucester	4,311	6,632	325	1,409
72	North Gloucester	9,293	15,179	1,099	1,158
	Gloucester Total	**30,131**	**46,269**	**9,160**	**17,430**
	PENINSULA TOTAL	**433,772**	**548,818**	**244,660**	**329,993**

Prepared By: HRPDC, March 1995.

PENINSULA DISTRICT

NUMBERS AND NAMES

Newport News

1 Southeast
2 Huntington
3 Copeland-Briarfield
4 Sedgefield-Morrison
5 Hilton-Riverside
6 Menchville
7 Denbigh
8 Harpersville-Kiln Creek
9 Oyster Point
10 Patrick Henry
11 Richneck
12 Endview-Lee Hall
13 Fort Eustis

Hampton

20 Northampton
21 Westhampton
22 Wythe/Southampton
23 Mercury Central
24 NW Quadrant/Magrude
25 NE Quadrant/Fox Hill
26 Buckroe/Phoebus

Poquoson

30 Poquoson

Williamsburg

40 Williamsburg

James City County

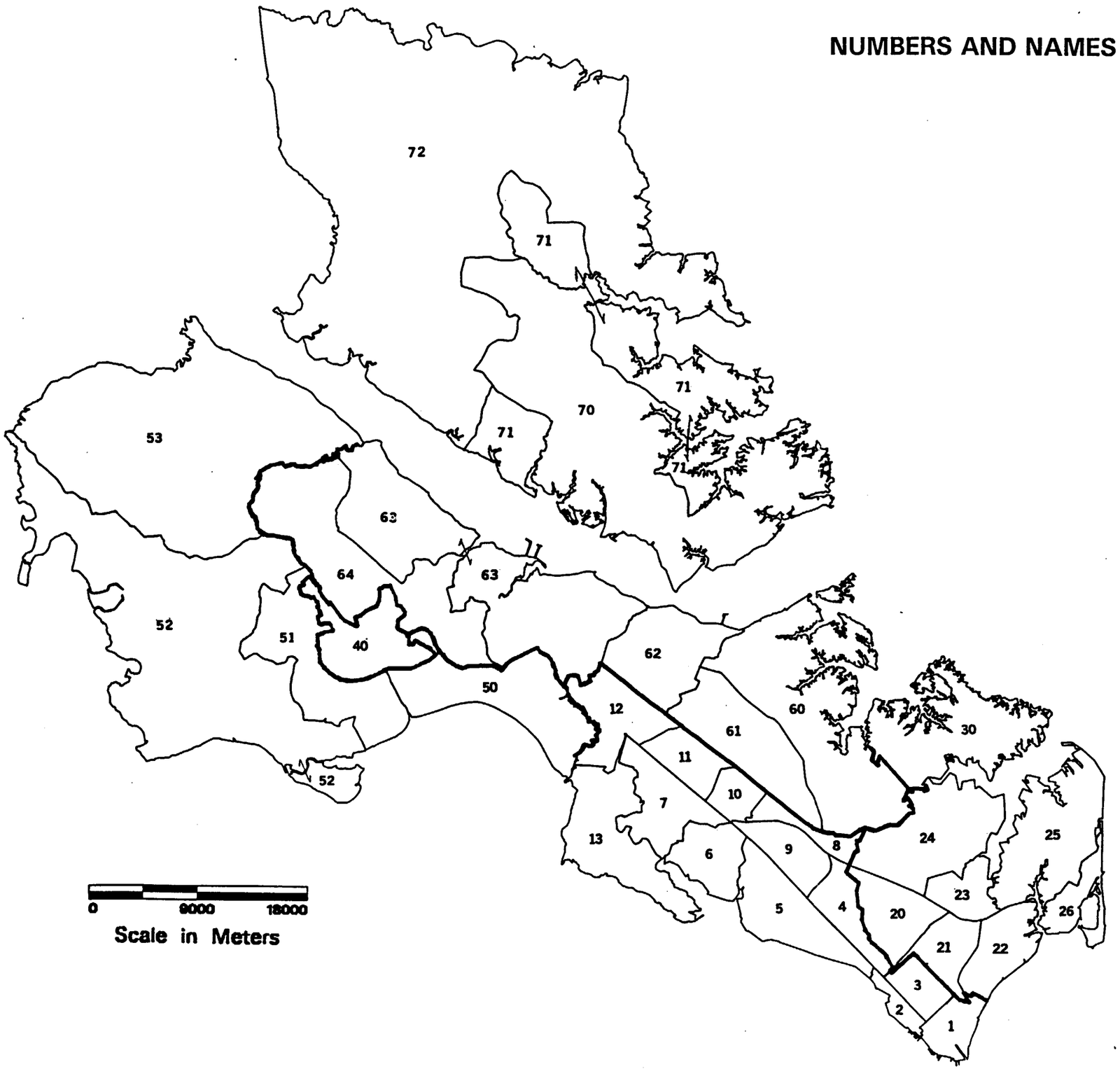
50 Grove
51 Lake Powell
52 Jolly Pond
53 Toano

York County

60 Tabb\Grafton
61 Watershed Area
62 Yorktown
63 Federal Property
64 Williamsburg Area

Gloucester

70 Rt. 17 Corridor
71 E/W Gloucester
72 North Gloucester



Prepared by: HRPDC, July 1994

APPENDIX F

Inventory of Financially Constrained Transportation Improvements

TABLE 1
YEAR 2015 FINANCIALLY CONSTRAINED PLAN
ESTIMATED REGIONAL FUNDING ALLOCATIONS (FY 1995 - FY 2015)
(IN THOUSANDS)

		INTERSTATE FUNDS	PRIMARY FUNDS	URBAN FUNDS									
				Chesapeake	Hampton	Newport News	Norfolk	Poquoson	Portsmouth	Smithfield	Suffolk	Virginia Beach	Williamsburg
Total Funds Projected		$799,592	$299,608	$255,764	$192,111	$241,355	$343,474	$17,296	$138,626	$9,963	68,293	$677,532	$17,006
TIP (1995-2000) Construction Projects (Orange Line)	Add't Funding Needed	216,435	80,655	47,386	23,947	58,099	58,667	5,217	26,516	2,017	1,847	120,142	1,142
6 Year Plan (FY 95-2000) RW & PE Projects (Blue Line)	Add't Constr. Funding Needed	272,597				24,294						39,500	
6 Year Plan (FY 95- 2000) PE Only (Green Lines)	Add't Funds for PE Study	4,274	1,010				821					500	1,361
Uncommitted Money		$306,286	$217,943	$208,378	$168,164	$158,942	$283,986	$12,079	$112,110	$7,946	$66,446	$517,390	$14,503

Source: VDOT - Financial Planning and Department Management Division

Prepared By: HRPDC - April 1995

This document lists the projects, locations, and costs associated with the **Hampton Roads 2015 Regional Transportation Plan**. This Plan is the result of a cooperative effort involving the Cities of Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg; the Counties of Gloucester, Isle of Wight, James City, and York; the Tidewater Transportation District Commission, the Peninsula Transportation District Commission, James City County Transit, the Virginia Department of Transportation, the Virginia Department of Rail and Public Transportation, the Virginia Port Authority, the Federal Highway Administration, the Federal Transit Administration, and the Hampton Roads Planning District Commission. The Intermodal Surface Transportation Efficiency Act of 1991 requires that the Plan be fiscally-constrained. The Virginia Department of Transportation provided an estimate for projected revenues for the region through the year 2015 as a target to meet the fiscal-constraint requirement.

The first table, entitled **Non-Highway Improvements** lists the amounts to be allocated from each funding category for various non-highway transportation projects. Some of the projects are currently underway, while other non-highway projects will be more specifically defined in the future.

The transportation projects listed in the second table, entitled **Corridor Improvements**, include projects from the current (FY 95-98) Transportation Improvement Program (TIP) which require additional funding to complete, as well as projects which are not in the current TIP but for which a need will exist by 2015. The costs shown for projects which are listed in the current TIP represent the "additional funding required" to complete the projects (including any allocations made to the projects in FY 95). The costs listed for projects not included in the current TIP are cost estimates provided by VDOT. There are some projects in the table listed with zero costs. Those projects are listed in the TIP as being fully funded and have been included in the Plan documentation at the request of VDOT. It should be noted that some projects in the table are to be funded partially or entirely by city bonds, local funds, or tolls. The amounts to be funded by such sources should be deducted from the region's "total cost" when the cost is compared to projected revenues to test for fiscal constraint.

2015 REGIONAL TRANSPORTATION PLAN
HAMPTON ROADS, VIRGINIA

NON-HIGHWAY IMPROVEMENTS

Project Location	Project Type	Funding Category	Cost ($ Thousands)
Regionwide	Ridesharing/TDM	STP	30,000
Regionwide	CMS/Transit	STP	30,000
Regionwide	Enhanced I & M/Non-Hwy Transportation	CMAQ	60,000
Regionwide	Bikeways	STP	50,000
TOTAL			170,000

Prepared By: Hampton Roads Planning District Commission, December 1994.

2015 REGIONAL TRANSPORTATION PLAN
HAMPTON ROADS, VIRGINIA

CORRIDOR IMPROVEMENTS

REVISED: Apr. 10, 1995

Project Type	Jurisdiction	Facility	Project Location	Improvement Type	Project in 95-98 TIP	Funding Category	Cost ($ Thousands)
U	Chesapeake	Ballahack Rd	Blackwood Bridge and Approaches	Replace Bridge	Y	AD/S	62
U	Chesapeake	Battlefield Blvd	Johnstown Rd to Hanbury Rd	Widen to 4-L		Urban/Bond (4M)	9,789
U	Chesapeake	Battlefield Blvd (Rt 168)	Great Bridge Bypass to NC State Line	Widen to 4-L	Y	NH/Toll(20M)/Bond(10M)	68,000
U	Chesapeake	Battlefield Blvd/Atlantic Ave	Robert Hall Dr to Buckland St	Widen to 4-L	Y	M/STP	4,472
U	Chesapeake	Bruce Rd	Taylor Rd to Tyre Neck Rd	Widen to 4-L		Urban	9,424
U	Chesapeake	Butts Station Rd	Centerville Tnpk to Kempsville Rd	Widen to 5-L		Urban	8,900
U	Chesapeake	Camelot Blvd	GW Hwy to Deep Creek Blvd	Widen to 4-L		Bond	1,533
U	Chesapeake	Campostella Connector	Atlantic Ave to NCL	Constr 4 & 6 L	Y	M/STP	12,811
U	Chesapeake	Canal Dr	GW Hwy to Military Hwy	Widen to 4-L		Bond	3,000
U	Chesapeake	Cedar Rd	Dominion Blvd to GW Hwy	Widen to 4-L		Urban	15,276
U	Chesapeake	Cedar Rd	Battlefield Blvd to Albemarle Dr	Widen to 5-L		Urban	5,000
U	Chesapeake	Cedar Rd	Albemarle Dr to Dominion Blvd	Widen to 4-L		Bond	7,000
U	Chesapeake	Centerville Tnpk	Mount Pleasant Rd to VA Beach CL	Widen to 4-L		Urban/Bond (5M)	19,904
U	Chesapeake	Churchland Blvd	Towne Point Rd to ECL	Widen to 4-L	Y	M/STP	483
P	Chesapeake	Dominion Blvd (Rt 104)	Great Bridge Blvd to Cedar Rd	Widen to 6-L		Primary	24,039
P	Chesapeake	Dominion Blvd (Rt 104)	Cedar Rd to US 17	Widen to 4-L		Primary	12,000
U	Chesapeake	George Washington Hwy	I-64 to Cedar Rd	Widen to 4-L		Urban	5,290
U	Chesapeake	George Washington Hwy	Canal Dr to Military Hwy	Widen to 5-L		Bond	6,600
U	Chesapeake	Gilmerton Bridge	S Military Hwy over S Branch Elizabeth River	Bridge Rehab	Y	BR	1,484
U	Chesapeake	Great Bridge Blvd	River Walk to Battlefield Blvd	Widen to 5-L		Urban	6,100
U	Chesapeake	Greenbrier Pkwy	Volvo Pkwy Intersection	Add Turn Lanes	Y	S	550
U	Chesapeake	Hanbury Rd	Battlefield Blvd to Johnstown Rd	Widen to 4-L		Urban/CIB (2M)	5,757
U	Chesapeake	Hanbury Rd Interchange	Interchange w/Great Bridge Bypass	Constr Interchange		Bond	8,182
U	Chesapeake	Indian River Rd	VA Beach CL to Norfolk CL	Widen to 6-L		Bond	3,100
U	Chesapeake	Indian River Rd	WCL to Wingfield Ave	Widen to 4-L	Y	S	0
U	Chesapeake	Johnstown Rd	Parker Rd to Benefit Rd	Widen to 4-L		Urban/Bond (5M)	26,553
U	Chesapeake	Jordan Bridge	Poindexter over S Branch Elizabeth River	Temp Rehab (2-L)		Bond	2,400
U	Chesapeake	Jordan Bridge Corridor	Frederick Blvd to I-464	Feasibility Study	Y	Reg STP	1,000
U	Chesapeake	Kempsville Rd	Volvo Pkwy to ECL	Widen to 6-L	Y	Reg STP	2,156
U	Chesapeake	Kempsville Rd	Battlefield Blvd to Greenbrier Pkwy	Widen to 6-L	Y	STP	10,674
U	Chesapeake	Kempsville Rd	Greenbrier Pkwy to Volvo Pkwy	Widen to 6-L	Y	Reg STP	16,122
U	Chesapeake	Military Hwy	Allison to VA Beach CL	Widen to 6-L		Urban	17,440
U	Chesapeake	Military Hwy	Canal Dr to Bainbridge Blvd	Widen to 6-L		Urban	46,738
U	Chesapeake	Military Hwy	Bainbridge Blvd to Battlefield Blvd	Widen to 6-L		Urban	18,000
U	Chesapeake	Mount Pleasant Rd	Great Bridge Bypass to Centerville Tnpk	Widen to 4-L		Urban/Bond (500K)	14,744
U	Chesapeake	Mount Pleasant Rd	Battlefield Blvd to Great Bridge Bypass	Widen to 4-L		Bond	4,200
U	Chesapeake	Portsmouth Blvd (Rt 337)	I-664 to Suffolk CL	Widen to 4-L		Urban/Reg STP (2M)	4,275
U	Chesapeake	Tyre Neck Rd	Bruce Rd to Portsmouth CL	Widen to 4-L		Urban	7,182
P	Chesapeake	US 17	Intersection US 17 & Rt 104	Realign Intersection	Y	Reg STP	370

2015 REGIONAL TRANSPORTATION PLAN
HAMPTON ROADS, VIRGINIA

CORRIDOR IMPROVEMENTS

REVISED: Apr. 10, 1995

Project Type	Jurisdiction	Facility	Project Location	Improvement Type	Project in 95-98 TIP	Funding Category	Cost ($ Thousands)
P	Chesapeake	US 17	NC State Line to 1.3 mi N of State Line	Widen to 4-L	Y	Reg STP	700
P	Chesapeake	US 17	1.3 mi N of NC Line to 3.8 mi N of SL	Widen to 4-L	Y	Reg STP	5,260
P	Chesapeake	US 17	3.8 mi N of NC Line to 5.4 mi N of SL	Widen to 4-L	Y	Reg STP	2,900
P	Chesapeake	US 17	5.4 mi N of NC Line to 0.4 mi S of Rt 104	Widen to 4-L	Y	Reg STP	8,682
U	Chesapeake	Various Facilities	Geometric, Signal, & RR Cross Improvs.			Bond	6,565
U	Chesapeake	Volvo Pkwy	Fairways Rd to Kempsville Rd	Widen to 4-L		Bond	2,300
U	Chesapeake	Volvo Pkwy	Kempsville Rd to ECL	Constr 4-L	Y	Reg STP	0
P	Gloucester Co	Upriver Crossing	Bet Gloucester & York over York River	Feasibility Study		Reg STP	2,000
P	Gloucester Co	US 17	Rt 614 to Rt 216	Widen to 6-L		Reg. STP	26,000
P	Gloucester Co	US 17	Rt 216 to Coleman Bridge	Widen to 6-L		Primary	15,016
P	Gloucester Co	US 17	Intersection of US 17 & Rt 606	Extend NB LT Lane	Y	S	23
U	Hampton	Armistead Ave	Wythe Creek Rd to NASA Main Gate	Widen to 4-L		Urban	4,560
U	Hampton	Armistead Ave Conn.	I-64/664 to Mercury Blvd	Constr 4-L Conn.	Y	Reg STP/Urban	28,909
U	Hampton	Big Bethel Rd	Saunders Rd to Semple Farm Rd	Widen to 4-L	Y	S	892
U	Hampton	Big Bethel Rd	HRCP to Thomas Nelson Dr	Widen to 4-L		Urban	7,472
U	Hampton	Commander Shepard Blvd	Magruder Blvd to Big Bethel Rd	Constr 4-L		Urban	22,581
U	Hampton	County St	Woodland Rd to Mallory St	Widen to 4-L		Urban	2,337
U	Hampton	Hampton Rds Cntr Pkwy	WCL to Big Bethel Rd	Constr 4-L	Y	STP	1,390
U	Hampton	Hampton Rds Cntr Pkwy	WCL to Big Bethel Rd	Widen to 6-L		Urban	2,468
U	Hampton	Harris Creek Rd	Little Back River Rd to Fox Hill Rd	Widen to 4-L		Urban	3,675
U	Hampton	King St	I-64 to Pembroke Ave	Widen to 4-L		Urban	1,698
U	Hampton	King St	Old Fox Hill Rd to Little Back River Rd	Widen to 6-L		Urban	4,320
U	Hampton	King St	Little Back River Rd to Langley Gate	Widen to 4-L		Urban	5,351
U	Hampton	Little Back River Rd	King St to Clemwood Pkwy	Widen to 4-L		Urban	4,446
U	Hampton	Little Back River Rd	Clemwood Pkwy to Wilderness Rd	Widen to 4-L		Urban	1,824
U	Hampton	Magruder Blvd	Semple Farm Rd to NCL	Widen to 6-L		Urban	2,100
U	Hampton	Magruder Blvd	Comm Shepard Blvd to Semple Farm Rd	Widen to 6-L		Urban	6,750
U	Hampton	Magruder Blvd	HRCP to Comm Shepard Blvd	Widen to 6-L		Urban	21,272
U	Hampton	Matching Funds	Matching Funds for CMAQ		Y	S	24
U	Hampton	Mercury Blvd	Armistead Ave to King St	Widen to 8-L	Y	S	10,415
U	Hampton	Mercury Blvd	Orcutt Ave to Queen St	Widen to 8-L	Y	S	126
U	Hampton	Mercury Blvd	WCL to Orcutt Ave	Widen to 8-L		Urban	3,696
U	Hampton	Mercury Blvd	Queen St to I-64	Widen to 8-L		Urban	4,013
U	Hampton	Mercury Blvd	I-64 to Coliseum Dr	Widen to 8-L		Urban	3,500
U	Hampton	Mercury Blvd	Coliseum Dr to Cunningham Dr	Widen to 8-L		Urban	5,386
U	Hampton	Mercury Blvd	Cunningham Dr to Armistead Ave	Widen to 8-L		Urban	1,584
U	Hampton	Mercury Blvd	King St to Fox Hill Rd	Widen to 8-L		Urban	4,067
U	Hampton	Mercury Blvd	Fox Hill Rd to Andrews Blvd	Widen to 8-L		Urban	13,339
U	Hampton	Mercury Blvd	Andrews Blvd to Pembroke Ave	Widen to 6-L		Urban	4,125

2015 REGIONAL TRANSPORTATION PLAN
HAMPTON ROADS, VIRGINIA

CORRIDOR IMPROVEMENTS

REVISED: Apr. 10, 1995

Project Type	Jurisdiction	Facility	Project Location	Improvement Type	Project in 95-98 TIP	Funding Category	Cost ($ Thousands)
U	Hampton	Mercury/King Interchange	Mercury Blvd @ King St	Widen to 6-L		Urban	960
U	Hampton	Pembroke Ave	Eaton St to Mercury Blvd	Widen to 4-L		Urban	5,400
U	Hampton	Pembroke Ave Bridge	Over Hampton River, River St to Barron St	Widen to 4-L	Y	STP/BR	6,066
U	Hampton	Powhatan Pkwy	Pembroke Ave to Shell Rd	Widen to 4-L		Urban	2,223
U	Hampton	Saunders Rd	Big Bethel Rd to WCL	Widen to 4-L		Urban	4,104
U	Hampton	Semple Farm Rd	Magruder Blvd to Armistead Ave	Widen to 4-L		Urban	1,026
U	Hampton	Wythe Creek Rd	Armistead Ave to NCL	4-L & Int. improvs.	Y	Reg STP	149
P	Isle of Wight	Rt 10 Bypass	Rt 10 Bus to Rt 258	Widen to 4-L		Primary	25,892
P	Isle of Wight	Rt 258	N&W Railway Crossing (0.1 mi S Rt 460)	Update Det. Sys.	Y	RRP	60
P	Isle of Wight	Rt 58/258 Conn.	Rt 58 Bus./258 to 2.5 mi S Rt 58 Bus./258	2L on 4-L RW	Y	S	8,100
P	Isle of Wight	Rt. 10 Business	Smithfield Blvd to Rt. 10 Bypass	Widen to 5-L	Y	S	140
P	Isle of Wight	Rt.10/258 Bypass	At Rt 258 Business	Intersection Improve.	Y	S	360
P	Isle of Wight	U.S. 17	James River Bridge	Install TMS	Y	HES/Reg STP	1,245
P	Isle of Wight	Various	Rt 17, 258/32, 10/32	8 Turn Lane Improve.	Y	S	210
P	James City Co	Monticello Ave Ext.	Monticello/Ironbound to Rt 199	Constr 4-L	Y	Reg STP	3,567
P	James City Co	Route 199	Rt 5 to US 60 E of WMBG	Widen to 4-L		Primary	8,432
P	James City Co	Route 199 Ext.	0.1 mi S of Rt 60 EB Lane to Rt 612	Constr 4-L	Y	Reg STP	9,340
P	James City Co	Route 199 Ext.	Rt 612 to Rt 615	Constr 4-L	Y	Reg STP	5,433
P	James City Co	Route 199 Ext.	Rt 615 to 0.2 mi S of Rt 5	Constr 4-L	Y	Reg STP	6,560
P	James City Co	Route 5 Alternate	Monticello Ave Ext. to Rt 613	4-L New Alignment		Primary/Private (4M)	10,000
P	James City Co	US 60	At Wisteria Garden Dr	Constr Turn Lanes	Y	S	225
P	James City Co	US 60	5 locations bet WMBG & Newport News	Constr Turn Lanes	Y	S	750
P	James City Co	US 60	At Williamsburg Pottery	Bus Shelter & Turnout	Y	S	45
P	James City Co	US 60 Relocated	Grove Interchange to Newport News CL	4-L New Alignment		Primary	19,500
P	James City Co	Route 199 Ext.	At Rt 646	Constr Interchange		Primary	2,233
P	James City Co	Route 199 Ext.	At Rt 615	Constr Interchange		Primary	4,600
P	James City/York	Route 199 Ext.	I-64 W of WMBG to Rt 5 S of WMBG	PE Only	Y	F/S	910
P	James City/York	Route 199 Ext.	I-64 W of WMBG to 0.1 mi S Rt 60 EB Lane	4-L on New Location	Y	Reg STP	5,950
P	James City/Yofk	Route 199 Ext.	Bridges over Rt 60 & CSX Railroad	Constr Parallel Bridges	Y	Reg STP	1,380
P	JC/York/WMGB	Route 199 Ext.	Bet I-64 and Rt 5	Constr Rt 612 Interchg	Y	Reg STP	4,615
U	Newport News	39th St Bridge	Jefferson Ave to Warwick Blvd	Replace 2-L Bridge	Y	BR/STP	6,859
U	Newport News	Briarfield Rd	Jefferson Ave to Hampton CL	Widen to 4-L		Urban	6,555
U	Newport News	Chestnut Ave	48th St to Briarfield Rd	Widen to 4-L		Urban	3,623
U	Newport News	CSX Rail Study	CSX Rail Corridor	Feasibility Study		Reg STP	1,500
U	Newport News	East-West Expressway	Jefferson Ave to ECL	Constr 6-L	Y	STP	7,831
U	Newport News	Fort Eustis Blvd	I-64 to York CL	4-L & Alter Interchange	Y	NH	See York Co
U	Newport News	Harpersville Rd	East-West Xway to Saunders Rd	Widen to 4-L		Urban	14,688
U	Newport News	Harpersville Rd	J Clyde Morris Blvd to Saunders Rd	Widen to 4-L		Urban	3,021
U	Newport News	Harpersville Rd	Warwick Blvd to Jefferson Ave	Widen to 4-L		Urban	6,042

2015 REGIONAL TRANSPORTATION PLAN
HAMPTON ROADS, VIRGINIA

CORRIDOR IMPROVEMENTS

REVISED: Apr. 10, 1995

Project Type	Jurisdiction	Facility	Project Location	Improvement Type	Project in 95-98 TIP	Funding Category	Cost ($ Thousands)
U	Newport News	I-64 Interchange	Bland Blvd (Airport Access)	Constr Interchange		Reg STP	30,000
U	Newport News	J Clyde Morris Blvd	Jefferson Ave to I-64	Widen to 6-L	Y	F/STP	3,319
U	Newport News	J Clyde Morris Blvd	I-64 to York CL	Widen to 6-L		Urban	6,411
U	Newport News	J Clyde Morris Blvd	Warwick Blvd to Jefferson Ave	Widen to 6-L		Urban	10,818
U	Newport News	Jefferson Ave	Muller Ln to I-64	Pavement Repairs	Y	S	200
U	Newport News	Jefferson Ave	I-64 to Buchanan Dr	Widen to 6-L	Y	S	895
U	Newport News	Jefferson Ave	Buchanan Dr to Green Grove Ln	Widen to 6-L	Y	Reg STP	14,544
U	Newport News	Jefferson Ave	Green Grove Ln to Fort Eustis Blvd	Widen to 6-L		Urban	10,560
U	Newport News	Lucas Creek Rd	Warwick Blvd to Snidow Blvd	Constr 4-L		Urban	6,441
U	Newport News	Matching Funds	Matching Funds for CMAQ		Y	S	254
U	Newport News	Mercury Blvd	Jefferson Ave to Hampton CL	Widen to 8-L		Urban	2,000
U	Newport News	Middleground Blvd	Jefferson to Nettles (Inc. Conn to Warwick)	Constr 4-L	Y	M/STP	12,356
U	Newport News	Oyster Point Rd	Warwick Blvd to Jefferson Ave	Widen to 6-L		Urban	10,656
U	Newport News	Saunders Rd	Harpersville Rd to Hampton CL	Widen to 4-L		Urban	4,731
U	Newport News	Snidow Blvd	Warwick Blvd to Jefferson Ave	Constr 4-L	Y	M/STP	17,785
U	Newport News	Snidow Blvd	Jefferson Ave to Fort Eustis Blvd	Constr 4-L	Y	STP	9,750
U	Newport News	Warwick Blvd	J Clyde Morris Blvd to Nettles Dr	Widen to 6-L	Y	F/STP	13,072
U	Newport News	Warwick Blvd	Fort Eustis Blvd to WCL	PE Only (4-L)	Y	Reg STP	285
U	Newport News	Warwick Blvd	Yorktown Rd to Fort Eustis Blvd	Widen to 4-L		Urban	3,668
U	Newport News	Warwick Blvd	Fort Eustis Blvd to Nettles Dr	Widen to 6-L		Urban	41,704
U	Newport News	Warwick Relocated	Fort Eustis Blvd to James City CL	Constr 4-L		Urban	3,915
U	Newport News	Yorktown Rd	I-64 to Warwick Blvd	Widen to 4-L		Urban	1,975
U	Newport News	Yorktown Rd	Jefferson Ave to York CL	Widen to 4-L		Urban	5,985
U	Norfolk	4th View St	At Ocean View Ave & Tidewater Dr		Y	S	10,114
U	Norfolk	Ballentine Blvd	VA Beach Blvd to Tait Terr	Widen to 4-L		Urban	15,000
U	Norfolk	Bay Ave Ramps	I-64 at Bay Ave	Constr ramps		NH	5,000
U	Norfolk	Brambleton Ave	I-264 to Midtown Tunnel	Interchanges		Urban	50,000
U	Norfolk	Campostella Rd	SCL to Wilson Rd	Widen to 6-L	Y	M/STP	526
U	Norfolk	Chesapeake Blvd	Leicester Ave to E Ocean View Ave	Widen to 4-L	Y	S	843
U	Norfolk	Chesapeake/Lindenwood Ext	Lindenwood Ave to Norview Ave	4 & 6 L & Bridge		Urban	17,000
U	Norfolk	Church St	Goff St to Granby St	Widen to 4-L	Y	S	11,184
U	Norfolk	Cromwell/Robin Hood Ext	Chesapeake Blvd to Tidewater Dr	Widen to 4-L		Urban	8,000
U	Norfolk	Hampton Blvd	Interchange at Intern'l Terminal Blvd	Feasibility Study	Y	NH	500
U	Norfolk	Hampton Blvd	RR Cross north of Terminal Blvd	Grade Separate		Reg STP	10,000
U	Norfolk	Hampton Blvd Bridge	Bridge over Lafayette River	Repl SB/Rehab NB	Y	BR	808
U	Norfolk	Indian River Rd	Marsh St to Campostella Rd	Widen to 4 & 6 L	Y	S	729
U	Norfolk	Indian River Rd	Campostella Rd to ECL	Widen to 4 & 6 L	Y	S	2,036
U	Norfolk	Little Creek Rd	Tidewater Dr to Shore Dr	Widen to 6-L		Urban	35,000
U	Norfolk	Llewellyn Ave	21st St to Delaware Ave	Widen to 4-L		Urban	10,000

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HAMPTON ROADS, VIRGINIA

CORRIDOR IMPROVEMENTS

REVISED: Apr. 10, 1995

Project Type	Jurisdiction	Facility	Project Location	Improvement Type	Project in 95-98 TIP	Funding Category	Cost ($ Thousands)
U	Norfolk	Military Hwy	Curlew Dr to 0.29 mi S of Rt 58	Widen to 8-L	Y	STP	3,022
U	Norfolk	Military Hwy	0.29 mi S of Rt 58 to Lowery Rd	8-L & Rt 58 Interchange	Y	Reg & State STP	18,838
U	Norfolk	Military Hwy	Curlew Dr to Lowery Rd	Utilities	Y	STP	9,300
U	Norfolk	Military Hwy	Lowery Rd to Northampton Blvd	PE Only (8-L)	Y	STP	205
U	Norfolk	Military Hwy	SCL to Curlew Dr	Widen to 8-L	Y	STP	1,357
U	Norfolk	Military Hwy	Northampton Blvd to I-64	PE Only (6-L)	Y	STP	349
U	Norfolk	Military Hwy	Lowery Rd to Robin Hood Rd	Widen to 8-L		Urban	37,000
U	Norfolk	Military Hwy	Robin Hood Rd to Norview Ave	Widen to 6-L		Urban	11,000
U	Norfolk	Norview Ave	I-64 to Azalea Garden Rd	Widen to 6-L		Urban	10,000
U	Norfolk	Shore Dr	Bridge over Pretty Lake	Bridge Replace (4-L)	Y	BR/STP	7,459
U	Norfolk	St Pauls Blvd Flyover	St Pauls Blvd to Market St	Constr Flyover	Y	F/STP	4,561
U	Norfolk	Tidewater Dr	Alsace Ave to I-64	Widen to 6-L	Y	S	2,855
U	Norfolk	Tidewater Dr	Lafayette Blvd to Little Creek Rd	Widen to 6-L		Urban	30,000
U	Norfolk	VA Beach Blvd/Newtown Rd	VA Beach Blvd/Newtown Rd	Constr Interchange		Urban	24,000
U	Norfolk	Virginia Beach Blvd	Ingleside Rd to Jett St	Widen to 6-L	Y	M/STP	2,016
U	Norfolk	Virginia Beach Blvd	Glenrock Rd to Newtown Rd	PE Only (8-L)	Y	STP	267
U	Norfolk	Virginia Beach Blvd	Jett St to ECL	Widen to 8-L		Urban	22,000
U	Norfolk	Wesleyan Dr	Northampton Blvd to ECL	Widen to 4-L		Urban	3,000
U	Norfolk	Wilson Rd	Indian River Rd to SCL	Widen to 4-L		Urban	2,000
U	Poquoson	Victory Blvd/Little Florida Rd	York CL to Poquoson Ave	Widen to 4-L		Urban	9,311
U	Poquoson	Wythe Creek Rd	Hudgins Rd to Browns Neck Rd	Widen to 4-L	Y	S	1,524
U	Poquoson	Wythe Creek Rd	Alphus St to SCL	Widen to 4-L	Y	Reg STP	5,596
U	Poquoson	Yorktown Rd	Wythe Creek Rd to York CL	Improve 2-L		Urban	2,566
U	Portsmouth	Cedar Ln	High St W to W Norfolk Rd	Widen to 4-L	Y	Reg STP	6,242
U	Portsmouth	Churchland Blvd	WCL to High St W	Widen to 4-L	Y	M/STP	2,960
U	Portsmouth	Deep Creek Blvd	Wright Rd to SCL	Widen to 3-L		Urban	5,000
U	Portsmouth	Elmhurst Ln	Portsmouth Blvd to Clifford St	Improve 2-L		Urban	1,500
U	Portsmouth	Elmhurst Ln Ramp	I-264 at Elmhurst Ln	Constr Ramp		Urban	2,000
U	Portsmouth	High St	Churchland Bridge	Paint/Repairs	Y	Reg STP	1,500
U	Portsmouth	Hodges Ferry Rd	Logan to Club House	Improve 2-L		Urban	1,500
U	Portsmouth	Lee/Virginia Ave Conn.	Lee Ave to Virginia Ave Connector	Constr 2-L	Y	S	422
U	Portsmouth	MLK Fway Extension	London Blvd to I-264	Constr 4-L	Y	NH/Urban	85,000
U	Portsmouth	Pinners Point Interchange	West Norfolk Bridge to MLK Fway	Constr 4 & 6 L Conn.	Y	NH/Toll(29M)/City(50M)	115,000
U	Portsmouth	Towne Point Rd	WCL to Twin Pines Rd	Widen to 4-L		Urban	3,000
U	Portsmouth	Turnpike Rd	Constitution Ave to Portsmouth Blvd	Widen to 4-L	Y	M/STP	14,000
U	Portsmouth	Twin Pines Rd	Towne Point Rd to Terry St	Widen to 4-L	Y	S	2,263
U	Portsmouth	Twin Pines Rd	Terry St to Hedgerow Ln	Improve 2-L	Y	S	1,892
U	Portsmouth	Tyre Neck Rd	SCL to Churchland Blvd	Widen to 4-L	Y	STP	1,800
U	Portsmouth	West Norfolk Road	Churchland Blvd to Cedar Ln	Widen to 4-L	Y	STP	4,000

2015 REGIONAL TRANSPORTATION PLAN
HAMPTON ROADS, VIRGINIA

CORRIDOR IMPROVEMENTS

REVISED: Apr. 10, 1995

Project Type	Jurisdiction	Facility	Project Location	Improvement Type	Project in 95-98 TIP	Funding Category	Cost ($ Thousands)
P	Suff/I o W Co	US 17	Chuckatuck Creek Bridge	Constr Parallel Bridge	Y	Reg STP	8,630
U	Suffolk	Broad St Bridge	Second Ave to Constance Rd (N&W RR)	Replace Bridge	Y	BR	171
U	Suffolk	North Main St	Nansemond River Bridge to Wal-Mart Ent.	Widen to 5-L	Y	Reg STP	2,176
P	Suffolk	Route 10	0.2 mi N Rt 58 BP to 1.4 mi N Rt 58 BP	Widen to 4-L	Y	Reg STP	480
P	Suffolk	Route 10	2.1 mi N Rt 58 BP to 1.4 mi N Rt 58 BP	Widen to 4-L	Y	Reg STP	1,710
P	Suffolk	Route 125	Kings Hwy Bridge over Nansemond River	PE Only (2-L Bridge)	Y	BR/Reg STP	25
P	Suffolk	Route 13 South	Rt 32 to Whaleyville	Widen to 4-L		Reg STP	17,000
P	Suffolk	Route 337	Wilroy Rd to Chesapeake CL	Widen to 4-L		Primary	27,893
P	Suffolk	Route 337	At Rt 627 Near Driver	Eliminate RR Crossing	Y	S	65
P	Suffolk	Route 460	0.8 mi W of Rt 58 to 1.5 mi W of Rt 58	Provide LT Lane	Y	HES	90
P	Suffolk	Route 58	Interchange Rt 58 Business	Incr Super Elev., Dual Lns	Y	Reg STP	110
P	Suffolk	Route 58 Business	Rt 58 Bypass to Constance Rd	Widen to 4-L		Primary	10,325
U	Suffolk	Rt 10/32	2.1 mi N Rt 58 to Isle of Wight CL	Widen to 4-L		Primary	14,251
P	Suffolk	Rt 13/32 Bypass	SW Quadrant: Rt 58 to Rt 13/32	Constr 4-L	Y	Reg STP	17,945
P	Suffolk	US 17	Nansemond River Bridge	Constr Parallel Bridge	Y	Reg STP	15,370
U	Suffolk	Wilroy Rd	Rt 58 Bypass to Rt 337	Widen to 4-L		Reg STP	8,000
U	Virginia Beach	Birdneck Rd	General Booth Blvd to Southern Blvd	Widen to 4-L	Y	M/Reg STP	13,398
U	Virginia Beach	Centerville Tnpk	Centerville Reloc. to Kempsville	Widen to 4-L		Urban	5,350
U	Virginia Beach	Centerville Tnpk	Indian River Rd to Centerville Reloc.	Widen to 4-L		Urban	5,776
U	Virginia Beach	Centerville Tnpk	Kempsville Rd to Chesapeake CL	Widen to 4-L		Urban	6,870
U	Virginia Beach	City Line Rd	Kempsville Rd to Providence w/Interchg	Feasibility Study	Y	Reg STP	4,500
U	Virginia Beach	Constitution	VA Beach Blvd to Jeanne St	Widen to 4-L		Urban	2,184
U	Virginia Beach	Elbow Rd	Salem Rd to Indian River Rd	Widen to 4-L		Urban	16,000
U	Virginia Beach	Holland Rd	Dam Neck Rd to Princess Anne Rd	Widen to 4-L		Urban	11,005
U	Virginia Beach	Holland Rd/Dam Neck Rd	Intersection of Holland & Dam Neck Rds	Improve Intersection		Urban	1,460
U	Virginia Beach	Holland Rd/Lynnhaven Pkwy	Intersection of Holland & Lynnhaven	Improve Intersection		Urban	3,900
U	Virginia Beach	Independence Blvd	Pembroke Blvd to Haygood Rd	Widen to 6-L	Y	STP	4,320
U	Virginia Beach	Independence Blvd	Northampton Blvd to Haygood Rd	Widen to 6-L		Urban	14,160
U	Virginia Beach	Indian River Rd	I-64 to Kempsville Rd	Widen to 8-L		Urban	8,480
U	Virginia Beach	Indian River Rd	Ferrell Pkwy to Lynnhaven Pkwy	Widen to 6-L		Urban	3,221
U	Virginia Beach	Indian River Rd	Indian River Intersection to Ferrell Pkwy	Widen to 6-L		Urban	1,920
U	Virginia Beach	Indian River Rd	Independence Blvd to SE Expressway	Widen to 6-L		Urban	15,600
U	Virginia Beach	Indian River Rd	Lynnhaven Pkwy to Independence Blvd	Widen to 6-L		Urban	10,880
U	Virginia Beach	Indian River Rd	SE Expressway to North Landing Rd	Widen to 4-L		Urban	10,590
U	Virginia Beach	Indian River/Kempsville Rds	Intersection of Indian River & Kempsville	Improve Intersection		Urban	32,500
U	Virginia Beach	International Pkwy	Lynnhaven Pkwy to London Bridge Rd	Widen to 4-L		Urban	7,384
U	Virginia Beach	Jeanne St	Independence Blvd to Constitution Dr	Widen to 4-L	Y	STP	1,316
U	Virginia Beach	Kempsville Rd	WCL to Centerville Tnpk	4-L on 6-L RW	Y	Reg STP	2,340
U	Virginia Beach	Landstown/Elbow Ext.	Princess Anne Rd to Salem Rd	Constr 4-L		Urban	17,997

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Project Type	Jurisdiction	Facility	Project Location	Improvement Type	Project in 95-98 TIP	Funding Category	Cost ($ Thousands)
U	Virginia Beach	Laskin Rd	Great Neck Rd to First Colonial Rd	Widen to 8-L	Y	STP	14,246
U	Virginia Beach	Laskin Rd	First Colonial Rd to Birdneck Rd	Widen to 6-L	Y	STP	12,973
U	Virginia Beach	Laskin Rd	Birdneck Rd to Pacific Ave	Widen to 6-L	Y	STP	17,671
U	Virginia Beach	London Bridge Rd	International Pkwy to VA Beach Blvd	Widen to 4-L	Y	M/STP	14,498
U	Virginia Beach	London Bridge Rd	Shipps Corner Rd to International Pkwy	Widen to 4-L	Y	STP	3,936
U	Virginia Beach	Lynnhaven Pkwy	Holland Rd to S Lynnhaven Rd	Widen to 6-L	Y	STP	10,960
U	Virginia Beach	Lynnhaven Pkwy	Centerville Tnpk to Indian River Rd	4-L	Y	STP	9,648
U	Virginia Beach	Lynnhaven Pkwy	WCL to Centerville Pkwy	Constr 4-L	Y	Reg STP	0
U	Virginia Beach	Matching Funds	Matching Funds for CMAQ		Y	S	78
U	Virginia Beach	North Landing Rd	Princess Anne Rd to Salem Rd	Widen to 4-L		Urban	12,646
U	Virginia Beach	North Landing Rd	Salem Rd to Indian River Rd	Widen to 4-L		Urban	2,189
U	Virginia Beach	Oceana & 1st Colonial Ext.	General Booth Blvd to VA Beach Blvd	4-L	Y	S	10,905
U	Virginia Beach	Pacific Ave	Norfolk Ave to 42nd St			Local (TGIF)	64,000
U	Virginia Beach	Pacific Ave Bridge	Rudee Inlet Bridge & Approaches	Widen to 4-L	Y	S	3,181
U	Virginia Beach	Princess Anne Rd	Windsor Oaks Blvd to Independence Blvd	Widen to 8-L	Y	S	318
U	Virginia Beach	Princess Anne Rd	Independence Blvd to Landstown Rd	Widen to 8-L	Y	S	1,156
U	Virginia Beach	Princess Anne/Ferrell	Landstown to Courthouse Loop to Gen Booth	Widen to 4, 6, 8-L	Y	STP	39,500
U	Virginia Beach	Princess Anne/Witchduck	Intersection of Princess Anne & Witchduck	Improve Intersection		Urban	44,000
U	Virginia Beach	Rosemont Rd	Lynnhaven Pkwy to Landstown Rd	Widen to 4-L		Urban	9,180
U	Virginia Beach	S Independence Blvd	Salem Rd to Indian River Rd	Constr 4-L		Urban	11,735
U	Virginia Beach	Salem Rd	Ferrell Pkwy to Independence Blvd	Widen to 4-L	Y	S	4,690
U	Virginia Beach	Shore Dr	Northampton Blvd to Great Neck Rd	Widen to 6-L		Urban	27,760
U	Virginia Beach	South Plaza Trail	Princess Anne Rd to Independence Blvd	2-L on 4-L RW	Y	S	241
U	Virginia Beach	Virginia Beach Blvd	Rt 44 to Atlantic Ave	Widen to 4-L		Urban	22,496
U	Virginia Beach	Wesleyan Dr/Baker Rd	Newtown Rd to Norfolk CL	Widen to 6-L		Urban	8,912
U	Virginia Beach	Witchduck Rd	Rt 44 to VA Beach Blvd	Widen to 6-L		Urban	4,080
U	Virginia Beach	Witchduck Rd	Rt 44 to Princess Anne Rd	Widen to 6-L		Urban	6,240
U	Williamsburg	Ironbound Rd	Richmond Rd to WCL	Widen to 4-L		Urban	3,567
U	Williamsburg	Ironbound Rd	At Tewning Rd	Constr LT Lane	Y	S	144
U	Williamsburg	Merrimac Trail	Capitol Landing Rd to WMBG CL	Improve 2-L		Urban	1,350
U	Williamsburg	Monticello Ave	Richmond Rd to Ironbound Rd	Improve 2-L		Urban	2,107
U	Williamsburg	Quarterpath Rd	Rt 199 to York St	Improve 2-L		Urban	3,240
U	Williamsburg	Richmond Rd	Monticello Ave to Brooks St	Improve 2-L		Urban	2,200
U	Williamsburg	Richmond Rd	Monticello Ave to New Hope Rd	Widen to 4-L	Y	S/Urban (1.18M)	2,250
U	Williamsburg	York St	Quarterpath Rd to Page St	Improve 2-L		Urban	1,680
S	York Co	Route 603 Relocated	Rt 199 to Bypass Rd	4-L		Reg STP/Secondary?	8,000
S	York Co	Route 105 Ext.	US 17 to Rt 173	Constr 4-L	Y	Reg STP/Local/Other	9,500
P	York Co	Route 134	At Big Bethel Rd	Constr Turn Lanes	Y	S	50
P	York Co	Route 171	US 17 to Rt 134	Widen to 6-L		Primary	2,625

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HAMPTON ROADS, VIRGINIA

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Project Type	Jurisdiction	Facility	Project Location	Improvement Type	Project in 95-98 TIP	Funding Category	Cost ($ Thousands)
P	York Co	Route 171	Rt 134 to Big Bethel Rd	Widen to 6-L		Primary	7,650
P	York Co	Route 173	At US 17	Constr LT Lanes	Y	Reg STP	400
P	York Co	Route 238	At Baptist Rd	Curb,Gutter/Drain/Surf.	Y	S	25
P	York Co	Rt 105	At Wood Town Quarters (Rt 1370)	Constr LT Lanes	Y	S	120
P	York Co	US 17	0.4 mi S of Rt 105 at CSX RR Crossing	Improve Surface	Y	RRP	15
P	York Co	US 17	N ot Rt 621	Constr Thru Lane	Y	S	350
P	York Co	US 17	Rt 171 to Rt 105	Widen to 6-L		Primary	34,027
P	York/NN	US 17/Rt 105	I-64 to Coleman Bridge	Widen to 4 & 6-L	Y	NH	50,280
	Ches/Va Beach	Southeastern Expressway	I-64/464 to Rt 44 East of Oceana	4 & 6 L + 2 HOV	Y	NH/Toll(50)/Bond(32)/VB(152)	397,000
I	Ches/Va Beach	Interstate 64	0.8 mi E Indian River Rd to Battlefield Blvd	Widen to 6-L + HOV	Y	NH/IM	16,240
I	Chesapeake	Interstate 64	Battlefield Blvd to I-464	Widen to 6-L + HOV	Y	NH/IM	51,055
I	Chesapeake	Interstate 64	I-464 to US 17	Widen to 6-L	Y	NH/IM	79,450
I	Chesapeake	Interstate 64	US 17 to US 13	Widen to 6-L	Y	NH/IM	10,000
I	Chesapeake	Interstate 64	US 13 to Bowers Hill	Widen to 6-L	Y	NH/IM	10,800
I	Chesapeake	Interstate 64	Bowers Hill Interchange	Widen to Dual Ramps	Y	IR-IM	180
I	James City Co	Interstate 64	Grove Interchange	Constr Interchange	Y	IM	26,875
I	York/JCC	Interstate 64	Rt 199 to New Kent CL	Widen to 6-L	Y	NH/IM	68,892
I	Hampton/NN	Interstate 64	0.3 mi E US 17 to 0.9 mi W HRCP	Widen to 6-L	Y	NH	525
I	Hampton	Interstate 64	Rt 134 to Mallory St	Traffic Mgmt System	Y	NH	3,375
I	Hamp/Norfolk	Interstate 64	HRBT SW & NW Approach Bridges	Deck Rehab	Y	IM	11,290
I	Hamp/Norfolk	Interstate 64	Hampton Roads Bridge Tunnel	Upgrade Comm System	Y	IM	600
I	Hamp/Norfolk	Interstate 64	HRBT Westbound Tunnel	Replace Tunnel Ceiling	Y	IM	6,900
I	Hamp/Norfolk	Interstate 64	Hampton Roads Crossing Study	Partial PE Only	Y	DEMO/IM	4,074
I	Newport News	Interstate 64	US 17 to Rt 143 East	Constr HOV Lanes	Y	NH/IM	5,725
I	Newport News	Interstate 64	East Rt 143 to West Rt 143 (8.4 mi)	Widen to 6-L	Y	NH/IM	35,550
I	JC/NN/York	Interstate 64	Rt 143 to Rt 199 (4.6 mi)	Widen to 6-L	Y	NH/IM	24,200
I	Newport News	Interstate 64	0.6 mi W US 17 to 0.3 mi E US 17	Widen to 6-L	Y	NH/IM	11,215
I	Newport News	Interstate 64	0.6 mi W Jefferson to 0.6 mi W US 17	6-L & Noise Walls	Y	NH	15,430
I	NN/Hampton	Interstate 64	0.3 mi E US 17 to 0.1 mi E NN CL	Noise Walls	Y	NH	755
I	Newport News	Interstate 64	0.6 mi W RT 143 to 0.3 mi E US 17	Landscaping	Y	NH	295
I	Newport News	Interstate 64	AT Rt 105	PE Only Access Approv	Y	NH	25
I	NN/ Hampton	Interstate 64	I-664 to US 17	Constr HOV Lanes	Y	NH/IM	28,200
I	Hamp/Norfolk	Interstate 64	N Shore Hampton Roads & Willoughby	Emerg Turn-Outs WB	Y	IM	175
I	Norfolk	Interstate 64	Bayview Blvd to 4th View St	Traffic Mgmt System	Y	NH	700
I	Norfolk	Interstate 64	Robin Hood Rd/Military Hwy	Additional Ramps	Y	IM	3,000
I	Norfolk	Interstate 64/264	Various Locations	Underbridge Lighting	Y	IM	215
I	Norfolk	Interstate 264	0.4 mi W Brambleton to US 13 Interchange	Constr HOV Lanes	Y	I/IM/NH	7,020
I	Norfolk	Interstate 264	US 13 Interchange	Bridge Widen & Roadwk	Y	IM/NH	12,250

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HAMPTON ROADS, VIRGINIA

CORRIDOR IMPROVEMENTS

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I	Norfolk	Interstate 264	US 13 Interchange to 1.1 mi E US 13	Constr HOV Lanes	Y	IM/NH	18,400
I	Norfolk	Interstate 264	Direct HOV Ramps for 264-44-64	Feasibility Study	Y	NH	200
I	Norfolk	Interstate 564	I-64 to Gates 3 & 3A	Traffic Mgmt System	Y	NH	430
I	Norfolk	Interstate 564	Terminal Blvd to Bainbridge Ave	2 HOV Enforce Areas	Y	IM	75
I	Norfolk	Interstate 564	At Norfolk Naval Base Gates 3 & 3A	Signal & Gate Control	Y	IM	125
I	Hampton	Interstate 664	I-64 to Newport News CL	Traffic Mgmt System	Y	NH	2,425
I	Newport News	Interstate 664	Hampton CL to MMM Bridge Tunnel	Traffic Mgmt System	Y	NH	1,500
	TOTALS						3,353,716

NOTES: For projects listed in the TIP (Transportation Improvement Program), the amount shown in the "Cost" column is the amount listed in the FY 95-98 TIP as "Additional Funding Required." This value is not necessarily the total cost of the project.

Project Types are: Urban (U), Primary (P), Secondary (S), and Interstate (I). Only a select few Secondary projects are included in this list.

Funding Categories:

For projects listed in the TIP, the funding categories are listed in this table as they appear in the TIP.

For projects not listed in the TIP, the funding categories are listed in this table as they were assigned by the TIP subcommittee.

Definition of Funding Category Abbreviations:

AD = Defense Access Funds
BOND = City Bond (In this table, Bond refers to Chesapeake's Bond)
BR = Bridge Replacement Funds (TIP Definition)
CIB = Capital Improvement Budget (Chesapeake)
City = Funds provided by a City
CM = Congestion Mitigation and Air Quality Improvement Program Funds (TIP Definition)
DEMO = Demonstration Funds
F = Primary Funds (TIP Definition)
HES = Hazard Elimination Program Funds (TIP Definition)
I = Interstate Completion Funds (TIP Definition)
IM = Interstate Maintenance Funds (TIP Definition)
IR = Interstate (4-R) Funds (TIP Definition)
M = Urban Funds (TIP Definition)
NH = National Highway System Funds (TIP Definition)
Primary = Primary Funds
Private = Private Funds (Non government)
Reg STP = Regional STP Allocation (Noted when known)
RRP = Railway-Highway Crossing Funds (TIP Definition)
RRS = Railway-Highway Grade Separation (TIP Definition)
RS = Rural Secondary Funds (TIP Definition)
S = State Construction Funds, No Federal Funds (TIP Definition)
Secondary = Secondary Funds
STP = Surface Transportation Funds (TIP Definition) (May be Regional or Statewide)
TGIF = Tourism Growth Investment Fund (City of Virginia Beach)
TOLL = Funds acquired by Tolls
Urban = Urban Funds
VB = Funds provided by the City of Virginia Beach
OTHER = Funding source not specifically defined

Source: Virginia Department of Transportation and local jurisdictions within the Hampton Roads Planning District.

Prepared By: Hampton Roads Planning District Commission, November 1994.