REPORT OF THE VIRGINIA DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION ON THE STUDY OF

RICHMOND RAIL STUDY

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

HOUSE DOCUMENT NO. 57

COMMONWEALTH OF VIRGINIA
RICHMOND
1996

WASHINGTON, D.C. - RICHMOND RAIL CORRIDOR STUDY

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PREFACE

The 1993 Session of the General Assembly of Virginia directed the Virginia Department of Rail and Public Transportation to "perform a study of the rail freight and passenger demands of the corridor between Washington, D.C. and the Richmond area. (Item 556 D of Chapter 994, 1993 Virginia Acts of Assembly) "

Pursuant to this directive, staff of the Department of Rail and Public Transportation(DRPT) undertook such a study. The consulting firm of URS Consultants, Inc. was hired to perform this study. Subcontractors on this project included Gannett Fleming, R.L. Banks & Associates, Inc., Garg Consulting Services, Paul H Reistrup, and Basile Baumann Prost & Associates, Inc. A description of the study effort, its findings and recommendations are contained in this report.

A Technical Advisory Committee was established to provide data for the study and to review the findings. This committee included representatives from the Department, the railroads, and local jurisdictions, as follows:

WASHINGTON, D.C. TO RICHMOND RAIL CORRIDOR STUDY
TECHNICAL ADVISORY COMMITTEE

NAME	ORGANIZATION
Mr. Alan Tobias, Project Manager	Department of Rail and Public Transportation
Mr. George R. Conner	Department of Rail and Public Transportation
Mr. Thomas F. Stewart	Department of Rail and Public Transportation
Mr. Ed Barber	Northern Virginia Transportation Commission
Mr. Dan Lysy	Richmond Regional Planning District Commission
Ms. Vickey Badger	City of Richmond
Ms. Isabel Kaldenbach	National Railroad Passenger Corporation
Mr. Dean Smoak	CSX Transportation
Mr. Bruce Clarke	Virginia Department of Transportation
Mr. Keith McCrea	Virginia Department of Aviation

Two public hearings on this study were held, in Richmond on January 24, 1996 and in Alexandria on January 25, 1996. Approximately 65 people attended these two hearings, and 31 written and oral comments were submitted to DRPT. These comments were overwhelmingly supportive of the study and of the proposal to implement rail service. A list of excerpts from these comments is provided in Appendix A. A complete set of these comments is on file with the Department.

EXECUTIVE SUMMARY

STUDY PURPOSE

Item 556 D of Chapter 994, 1993 Virginia Acts of Assembly states that:

> *"The Secretary of Transportation in conjunction with the Department of Rail and Public Transportation and the Department of Transportation shall perform a study of the rail freight and passenger demands of the corridor between Washington, D.C. and the Richmond area. The study shall include an assessment of the existing conditions, capacities, and improvements needed. The study will also include a preliminary engineering feasibility analysis of the corridor between Richmond and the Tidewater area. The study shall be completed by January, 1995."*

The Virginia Department of Rail and Public Transportation (DRPT) hired a consulting firm lead by URS Consultants, Inc. To perform this study. The purpose of this study was to:

1. Assess current conditions

2. Forecast travel demand.

3. Develop a system of improvements.

4. Summarize six previous efforts:
   a. A Preliminary Engineering assessment of the Washington to Richmond rail corridor.
   b. A Preliminary Engineering assessment of the Richmond to Hampton Roads corridor.
   c. Simulation of corridor rail operations utilizing a computer model.
   d. Planning for the Richmond Multimodal Center at Main Street Station.
   e. An analysis of land use development strategies.
   f. A preliminary investigation of environmental considerations.

FINDINGS AND RECOMMENDATIONS

Future Demand Population within the corridor study area is projected to grow from about 2.8 million in 1990 to more than 3.5 million in 2014. Employment in the corridor is expected to grow by 45% from 1.9 million in 1990 to 2.7 million in 2014. Based on this growth, rail ridership in the corridor could be expected to grow by more than 50% over the next 20 years without any changes to the level of service. However, with the proposed improvements reducing travel time by 30 minutes and increasing frequency of service to one train per hour, ridership is projected to grow from the current 708,000 to 2.2 million, an increase of more than 300%.

Projected Revenues and Expenses Growth of passenger revenue would match the rate of growth of riders. Revenues are projected to exceed operating expenses over a 20 period in all of the service scenarios tested.

Needed Improvements In order increase the speed of trains traveling between Richmond, and Washington, D.C., improvements need to be made to the rail infrastructure. Curves need to be straightened, additional signals need to be installed and crossing protection gates need to be upgraded in some locations. In order to add more trains to increase the frequency of service, an additional track will need to be constructed along the corridor to provide increased capacity. It will also be necessary to procure additional trains in order to provide the proposed frequency of service.

Phased Improvement Program An incremental approach towards constructing the recommended improvements is being recommended. A six phased program of improvements has been identified:

Stage 1: Maximum speed in corridor will be raised from current 70 mph to 80 mph. Approximately 6½ minutes of travel time will be saved.

Stage 2: Curves will be straightened and improvements in the Potomac Yard area in Northern Virginia will be completed. An additional 10 minutes in travel time will be saved.

Stage 3: The signal system will be upgraded and improvements will be made to eliminate speed restrictions in three locations. Maximum speed will be increased to 90 mph. An additional 6 minutes in travel time will be saved, and additional capacity will be provided.

Stage 4: Additional track will be built between Alexandria and Fredericksburg, including the construction of a new bridge across Quantico Creek. This will provide substantial additional capacity to allow for the operation of additional passenger trains.

Stage 5: High speed trainsets will be purchased to operate the expanded service. High speed crossovers will be install at ten locations to allow trains to maintain higher speeds when switching from one track to another. Track improvements will be made in Richmond to allow corridor trains to serve Main Street Station and a new layover facility at the Richmond International Airport.

Stage 6: An additional track will be installed between Fredericksburg and Richmond, and the maximum speed limit will be increased to 110 mph. An additional 10 minutes in travel time will be saved.

Cost Projections The total cost of all of the recommended improvements is in excess of $330 million. An incremental approach to constructing these projects will allow the phasing in of improvements over several years. The first three phases involve projects with a relatively low cost that will significantly improve the travel time of existing trains in the corridor. Stages four through six involve higher cost projects that will be necessary to further reduce travel times and to increase the capacity of the corridor in order to accommodate more frequent passenger service.

CONCLUSION

Frequent, fast, comfortable rail service in the Washington, D.C. to Richmond corridor could draw a substantial number of riders. The availability of an attractive alternative mode of transportation could help alleviate some of the severe congestion problems that exist now on the Interstate 95 corridor. A phased improvement program is being recommended to allow the Commonwealth to make gradual but significant improvement to rail passenger service in the Washington, D.C. to Richmond corridor.

WASHINGTON, D.C. TO RICHMOND RAIL CORRIDOR STUDY

THE GENERAL ASSEMBLY'S REQUEST

In the FY 1993 Budget Bill, the General Assembly of the Commonwealth of Virginia passed the following legislation:

> *The Secretary of Transportation in conjunction with the Department of Rail and Public Transportation and the Department of Transportation shall perform a study of the rail freight and passenger demands of the corridor between Washington, D.C. and the Richmond area. The study shall include an assessment of the existing conditions, capacities, and improvements needed. The study will also include a preliminary engineering feasibility analysis of the corridor between Richmond and the Tidewater area. The study shall be completed by January, 1995. (ITEM 556 D OF CHAPTER 994, 1993 VIRGINIA ACTS OF ASSEMBLY)*

THE DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION'S ASSIGNMENT

To accomplish the study, four tasks were conducted:

1. Assess current conditions.
2. Forecast travel demand.
3. Develop a system of improvements.
4. Project construction costs for selected improvements.

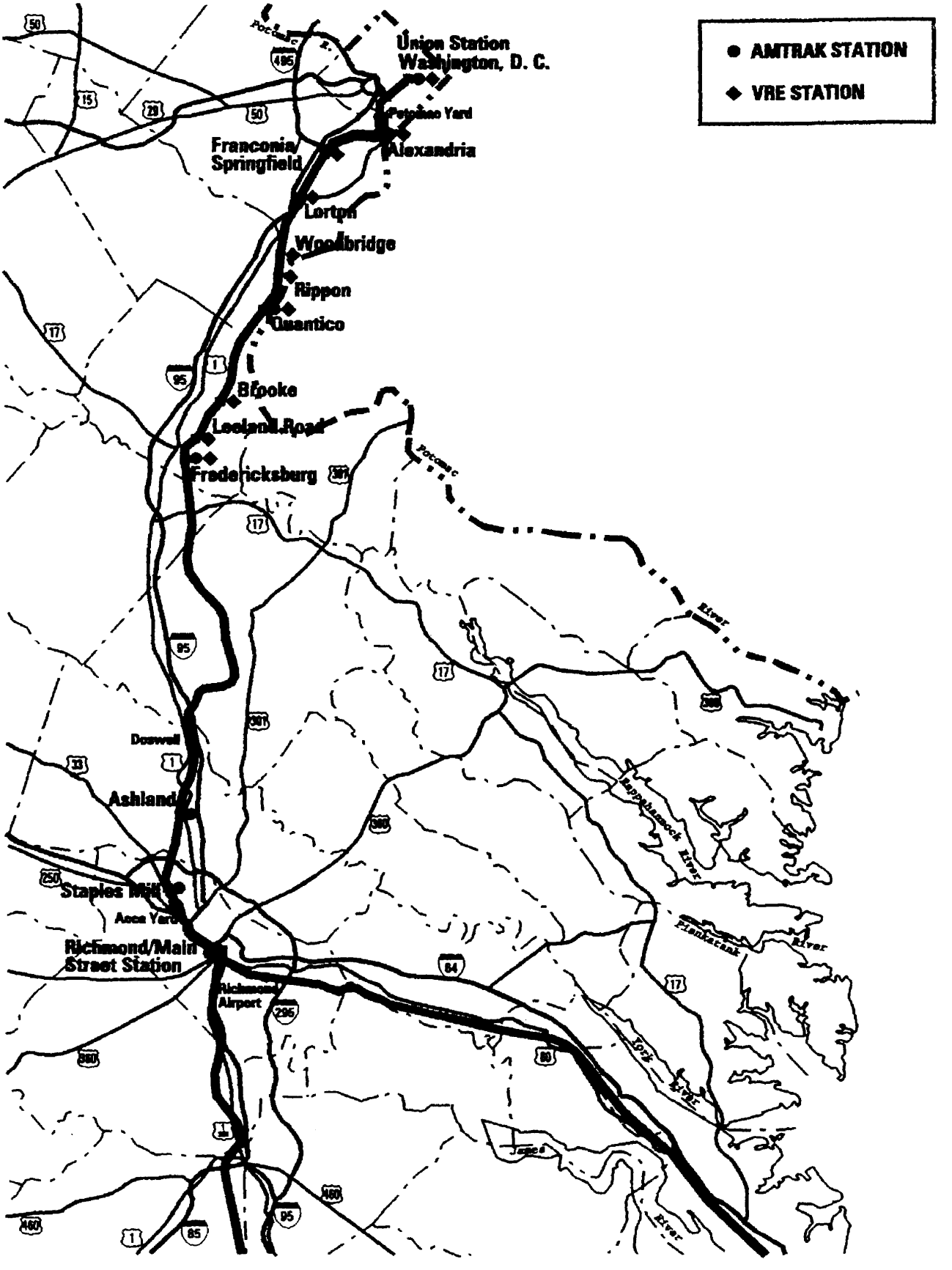
In addition, the consultants were asked to complete a fifth assignment:

5. Summarize six additional efforts - a preliminary assessment of the Washington, D.C.-to-Richmond Rail Corridor, a preliminary assessment of the Richmond-Hampton Roads Corridor, a preliminary analysis of a third track through the Corridor, planning for the Richmond Multimodal Transportation Center, an investigation of Corridor environmental considerations and development of land use strategies. The results were to be integrated into a Final Report for the General Assembly.

THE CORRIDOR STUDY'S FINDINGS

Interstate highway I-95 -- which generally parallels the rail route through much of the Corridor -- is currently congested. Bus, car and truck trips take approximately two hours between Richmond and Washington, D.C., and longer during rush hours. Improvements in the rail corridor could permit increased speeds for the corridor passenger trains, resulting in shorter train travel times. The shorter travel times might convince more car drivers to become train passengers. If projected increases in vehicle traffic on I-95 can be reduced, funds spent on rail improvements may have a greater benefit than funds spent on increasing highway capacity.

FIGURE 1
PROPOSED ROUTES AND SCHEDULES



An Historic Precedent -- According to Bob Kaplan and Deane Mellander in their book, *Richmond, Fredericksburg and Potomac Railroad, Linking North and South*, the Washington, D.C.-Richmond Rail Corridor has been a major force for economic development in Virginia since before the Civil War. Historically, one of the major sources of income for the railroads was rail passenger service. In 1943 an average of 103 trains -- one every 14 minutes -- passed through the corridor daily.

Better rail service could once again stimulate economic development in the region. From the north, Virginia could aggressively promote tourism fed by passengers already using trains on the Northeast Corridor. The Washington, D.C.-Richmond Corridor feeds the Northeast Corridor with thousands of passengers every year. Rail improvements in Virginia could extend the Northeast Corridor another 110 miles to the state capital. To the south, there is increasing interest in improving rail passenger service in the Carolinas, Georgia and Florida on rail lines that connect with the Washington-Richmond Corridor. Richmond and other Virginia communities would be more convenient for tourists, potential homeowners and businesses looking for building sites. Reduced vehicle traffic on I-95 would also reduce exhaust emissions and help Virginia control pollution. Finally, service to and from the urbanized Hampton Roads area could be improved. The Corridor Map is shown on Figure 1.

Future Demand -- Population on the Corridor is expected to grow from about 2.8 million in 1990 to more than 3.5 million in 2014. Employment will grow from about 1.9 million in 1990 to 2.7 million in 2014. Data collected from both automobile and rail passenger surveys in the Corridor, and the subsequent forecasting process, showed increasing demand for using rail service -- if running times were reduced and frequency of rail service was increased. These conservative estimates suggest ridership would increase if travel times were reduced. If train-trips were reduced to about 90 minutes, ridership would increase from its current 707,700 trips a year to more than 1.3 million in 2014. Improving rail travel time to 97 minutes and providing two additional trains per day would increase annual ridership to over 1.4 million in 2014. If trip times were 90 minutes and three more trains were added, annual ridership would increase to more than 1.6 million in 2014. Finally, 90-minute trips and hourly service would increase ridership to 2.2 million in 2014. Estimated total annual ridership is shown in Table 1.

Future Revenues -- Using the same scenarios, 90-minute trips would increase annual revenues from the current $18.39 million to $31.36 million in 2014.

Ninety-seven minute trips and two additional trains per day would increase annual revenues to $34.95 million in 2014. Ninety-minute travel times and three more trains would generate $39.31 If the 90-minute alternate is combined with a frequency of service of one train per hour, total revenue can range from $38.94 million in 1994 to $54.70 million in 2014. Estimated total annual revenues for the various scenarios are shown in Table 2. These amounts are total rail revenues, i.e. trips which are internal

within the corridor, trips which begin within the corridor and are complete at locations beyond the corridor, and trips which begin beyond the corridor and are completed within the corridor.

TABLE 1
ESTIMATED TOTAL ANNUAL RAIL RIDERSHIP
(In Thousands)

Scenario	Year		
	1994	2000	2014
Existing Rail Service	707.7	868.4	1084.9
Improved 97-Minute Travel Time	872.9	957.4	1255.0
Improved 90-Minute Travel Time	920.5	1021.9	1320.1
Improved 97-Minute Travel Time Plus Two Additional Trains	1032.0	1103.9	1456.0
Improved 97-Minute Travel Time Plus Three Additional Trains	1073.9	1179.3	1539.8
Improved 90-Minute Travel Time Plus Two Additional Trains	1093.7	1187.0	1552.7
Improved 90-Minute Travel Time Plus Three Additional Trains	1160.7	1266.5	1628.1
Improved 90-Minute Travel Time Plus One Train Per Hour	1581.0	1724.7	2224.9

Annual/Operating and Maintenance Expenses -- All current rail passenger service in the corridor is operated by Amtrak. Six trains operate in each direction, with an additional train that runs to Newport News on Fridays and Sundays. While it is expected that Amtrak will continue to provide this service for the foreseeable future, Amtrak, because of financial limitations, is not in a position to implement new service. It is therefore assumed that any new service in the corridor would be initiated by the Commonwealth. The new service could be operated by Amtrak, or by another appropriate rail operating authority, such as Virginia Railway Express (VRE).

Expenses for the current Amtrak services were calculated by Virginia Department of Rail and Public Transportation (DRPT) based on Amtrak's FY 1995 budget for each route. Expenses for proposed additional service levels were calculated using FY 1996 budgeted costs for VRE. Total annual operating expenses for each operating scenario are shown in Table 2.

Needed Improvements -- To increase passenger train speeds, certain curves in the track should be straightened, new signals added, safety improved where tracks cross streets, new trackage constructed in several areas, and a third track added incrementally. With improvements completed, tilt-train rail technology could be introduced on the Corridor, further improving the running time and comfort for passengers.

TABLE 2
ESTIMATED ANNUAL EXPENSES AND REVENUES
(Millions of 1994 Dollars)

Scenario	Annual Operating	Revenues - Year 1994	2000	2014
Existing Rail Service	$21.60	$18.39	$20.45	$25.46
Improved 97-Minute Travel Time	$21.80	$20.69	$22.64	$29.69
Improved 90-Minute Travel Time	$22.28	$21.88	$24.28	$31.36
Improved 97-Minute Travel Time Plus Two Additional Trains	$26.85	$24.83	$26.45	$34.95
Improved 97-Minute Travel Time Plus Three Additional	$29.48	$25.91	$28.41	$37.12
Improved 90-Minute Travel Time Plus Two Additional Trains	$26.97	$26.35	$28.53	$37.35
Improved 90-Minute Travel Time Plus Three Additional	$29.66	$28.10	$30.59	$39.31
Improved 90-Minute Travel Time Plus One Train Per Hour	$32.34	$38.94	$42.41	$54.70

The following is a listing of improvements, shown by priority based on critical need and cost effectiveness.

1. **Raise the maximum speed to 80 mph where feasible.**
2. **Raise the daytime speed through Ashland to 45 mph.**
3. **Complete installation of constant warning time (CWT) devices at the remaining grade crossings and modify 21 existing installations.**
4. **Increase superelevations, accept greater unbalanced loads and straighten curves within the right of way.**
5. **Complete the Crystal City area VRE track changes.**
6. **Add 26 signals to reduce headways.**
7. **Eliminate the diamond (rail-rail crossing) at Doswell.**
8. **Install a new signal at North Possum Point (between MP 83.5 and 81.3).**
9. **Raise maximum speed to 90 mph.**
10. **Remove 45 mph restrictions (Conrail).**
11. **Construct an additional track between Alexandria and Fredericksburg.**

12. **Construct a new bridge at Quantico Creek, partially straighten a curve, permitting 80 mph and increased capacity.**
13. **Replace the existing No. 20 turnouts with equilateral No. 20 turnouts at both ends of the Quantico bridge (if a new bridge resulting in two-track capacity at Quantico Creek, item 12 above, is not constructed).**
14. **Procure high speed tilt equipment.**
15. **Install 10 double No. 32.7, 80 mph crossovers/new turnouts, including VRE additions.**
16. **Implement Richmond area track improvements.**
17. **Construct an additional track between Fredericksburg and Richmond.**
18. **Introduce high speed service (110 mph).**
19. **Consider electrification to increase power and acceleration, to improve air quality, and to be consistent with the Northeast Corridor.**

In addition, the upgrading of existing stations at Staples Mill Road, Fredericksburg and Quantico for passenger convenience and comfort should be considered. There are also inadequate parking issues at stations which are used for both intercity and commuter services.

The phasing of improvements for reinstituting passenger service to the Richmond Main Street Station is described later in this report. Improvements at the Staples Mill Station should be coordinated with the planned service at the Main Street Station.

Cost Projections -- If all the improvements were constructed at once, it would strain public resources. Instead, an incremental approach has been proposed. This pragmatic, phased plan improves speed and service over several years. (Table 3 lists projected costs and a proposed schedule for improvements.) As construction is completed, results could be tested and operations refined. Freight activity on the Corridor would not be disrupted and could benefit from improved speed and capacity of the railroad.

RELATED CORRIDOR ENHANCEMENT STUDIES

The URS Consultants Washington, D.C.-to-Richmond Rail Corridor Team coordinated with several other Virginia Department of Rail and Public Transportation (DRPT) contractors conducting transportation related activities in this and adjacent rail corridors. The following is a summary of each of these related efforts.

Preliminary Corridor Investigations (James R. Smith) -- Completed in August, 1992, by James R. Smith, Jr., a former senior engineer of the Richmond, Fredericksburg and Potomac Railroad, the study analyzed the feasibility of constructing an additional track, along the CSXT rail corridor, for high speed passenger service. Two options were analyzed:

1. Assumed that an operating speed of 150 mph would be attained wherever practical, with necessary alignment changes.

TABLE 3
PHASED RAIL IMPROVEMENT PROGRAM

Description of Improvements	Minutes Saved[1]	Projected Cost
Stage 1 (80 mph)		
1. Raise corridor speed to 80 mph.	6.00	None
2. Raise speed through Ashland to 45 mph.	0.50	None
3. Finish installation of CWT[2] devices (one site) and modify existing CWT installations at grade crossings.	---	$146,000
Stage 2 (80 mph)		
1. Increase superelevations, accept greater unbalanced load, straighten curves.	9.00	$1.5 million
2. Crystal City area track changes (VRE)	0.80	$3 million
3. Replace existing No. 20 turnouts north and south of Quantico bridge.	0.33	$350,000
Stage 3 (90 mph)		
1. Add 26 signals to reduce headways.	Capacity	$7.8 million
2. Eliminate diamond at Doswell (CSXT)	0.83	$300,000
3. Install new signal at North Possum Point and increase speed from 55 to 70 mph.	0.75 (south bound only)	$200,000
4. Raise Corridor speed to 90 mph.	4.80	$400,000[3]
5. Remove 45 mph restrictions (Conrail)	0.50	$34,000
Stage 4 (90 mph)		
1. Construct an additional track between Alexandria Fredericksburg.	---	$134.2 million[4]
2. Construct new bridge at Quantico Creek (VRE).	0.24	$13.3 million
Stage 5 (90 mph)		
1. Procure high speed tilt equipment.	---	$14 million/train
2. Install 10 double high speed crossovers/new turnouts, including VRE additions.	Capacity increase	$32 million
3. New tracks Hermitage Road to Acca Yard.	---	$2.75 million[5]
4. Proposed wye at Richmond Airport.	---	$1.81 million[5]
5. Storage and service tracks at airport.	---	$1.88 million[5]
Stage 6 (110 mph)		
1. Construct additional track between Fredericksburg and Richmond	---	$119 million[4]
2. Introduce 110 mph service (tilt train), accept 7-inch unbalanced load.	30.00[6]	$1.23 million[7]

[1] Time savings indicated are not cumulative; assumptions varied for changed conditions.

[2] Constant Warning Time Device: Activates crossing protection a prescribed constant Time before train arrives at highway grade crossings, regardless of train speed.

[3] Increased annual cost per track over the length of the Corridor for maintenance at Class 5 standards.

[4] Analysis for construction of an additional track, Wilbur Smith Associates, 1994

[5] Wilbur Smith Associates, 1995.

[6] Based upon Wilbur Smith DPM third track analyses of conventional Amtrak equipment. Would be greater savings for high speed technology.

[7] Increased annual cost per track over the length of the Corridor for maintenance at Class 6 standards.

2. Assumed an additional track paralleling the existing track and using the existing right-of-way alignment, with any speed restrictions resulting from alignment or congestion.

The James R. Smith study estimates the 150-mph option with necessary alignment changes would cost approximately $435 million; the estimate for following the existing alignment is approximately $350 million. Neither of these cost estimates includes electrification.

Richmond-Hampton Roads Study (Donald W. Dodson) --- DRPT contracted with Donald W. Dodson to determine the feasibility of constructing an additional track adjacent to the existing CSXT track between Richmond and Newport News. Dodson's study assessed the existing conditions of the corridor and analyzed problem areas, including bridges and rights-of-way. Preliminary cost estimates for track and other improvements as well as cost estimates for electrification of the Corridor were provided. Conducted in two parts, the study's first part assumed the additional track will follow the existing CSXT alignment with an operating speed of 150 mph, except where limited by track restrictions.

The second part of the study assumed an operating speed of 150 mph, to be attained wherever practical, with necessary alignment changes. Both parts include speed restrictions in congested areas such as the cities of Richmond, Williamsburg, Newport News and adjacent suburbs.

In 1993, Dodson estimated the cost of an additional track for the existing alignment was approximately $222 million. The estimate for the alternative alignment was approximately $220 million. Neither of these costs included electrification. The estimate for the alternative alignment does not include land acquisition costs for approximately eight miles where the track would be located off the existing right of way.

Third Track/High Speed Train Scenarios (Wilbur Smith Associates) -- DRPT asked Wilbur Smith Associates to use VRE's Dispatch Planning Model (DPM) to develop preliminary scenarios for the Corridor that assumed construction of a new third track dedicated to high speed trains.

Two different aspects of the existing right-of-way alignment were evaluated from DPM outputs:

1. How successful were high speed operations, given the alignment's geometric limitations?
2. How did high speed operations affect other services?

With the exception of a 10-mile section south of Fredericksburg, DPM outputs showed that there are few sections where high speed trains reached 110 mph for any significant distance because curvature restricted interspersing track speeds. A faster schedule should be possible using tilt equipment (i.e., the Spanish Talgo or the Swedish X-2000 trains) which are capable of higher curve speeds compared to conventional equipment.

Alternatively, higher superelevation or allowable unbalance on the high speed track would improve running times.

Richmond Multimodal Transportation Center (Wilbur Smith Associates) -- Historic Main Street Station, strategically located near the core of downtown Richmond, could serve rail and bus passengers, as well as air travelers through direct limousine service to the Richmond International Airport. Adoption of the concept and restoring Main Street Station into the Richmond Multimodal Transportation Center (RMTC) could enhance a redeveloping area of Richmond and stimulate travel between Richmond and Hampton Roads.

The Feasibility Study recommends a three-phase implementation plan as shown below. Future intercity rail facility needs must be measured against projections of passenger activity. There is already evidence that the Staple Mill Road facility may inhibit growth in rail passenger travel. Amtrak has expressed their willingness to add Main Street Station to its schedule to attract more riders. The Main Street Station location would provide improved access for riders to the central Richmond area. Track and passenger facility changes are included in the abbreviated description of the Main Street phased activities that follow:

Phase I:

1. Newport News trains will continue to operate along the existing track on the east side of the trainshed
2. No improvements to tracks or facilities except the addition of an east station platform and modest rehabilitation of the second floor of the headhouse.
3. An estimated 68,400 rail patrons annually would generate an estimated on-site retail/service sales of $40,000.

Phase II:

1. Introduce trains originating in Richmond (the Old Dominion and New England Express) to the track segment between the Staples Mill Road Station and the RMTC. Upgrading of the track segment is required.
2. Due to the difficulty in locating adequate room for turning facilities the use of push-pull equipment was adopted for study purposes.
3. An estimated 157,200 rail patrons per year would generate an estimated on-site retail/service sales of $80,000.

Phase III:

The relocation of intercity bus operation from the present bus terminal on North Boulevard to the RMTC will require suitable roadways, bus and passenger parking areas, and truck access for baggage/express operations. Interior space requirements include passenger areas (waiting and refreshments), ticketing, administrative offices, dormitory space for drivers, etc. In Phase III there will be significantly increased passengers, to include approximately 800,000 annual intercity bus riders. In addition, transportation services will include downtown trolleys, taxi, car rentals and limousine service. The following facility is envisioned:

1. An estimated 800,000 intercity bus and 232,500 intercity rail patrons per year would generate an estimated $275,000 on-site retail/ service sales.
2. The upper level of the train shed could be used for expanded train service and/or major museum/ public space including a Visitor's Information Center, a Virginia Commerce and Heritage Exhibit Center; the lower level could include specialty retail/kiosks, etc.
3. Outside, to the east of the headhouse, a three level parking deck to include retail space at the ground level, is proposed.

Environmental Considerations -- In a separate effort, the Environmental Division of VDOT conducted a "Preliminary Environmental Overview" of the Washington-to-Richmond Rail Corridor Study Area. This overview concluded that complete data must be derived from additional studies in order to prepare the required environmental documentation and permit applications at the implementation stage of the proposed project. "It is most likely that a draft and final environmental assessment will be required for the proposed activity," the report stated. "However, depending on federal agency interpretation of the regulations, the activity may be determined to qualify for a categorical exclusion for NEPA requirements."

This environmental overview briefly discussed impacts of the following environmental considerations of the corridor area:

- Water and Wetland Resources
- Cultural Resources
- Threatened and Endangered Species/Wildlife
- Superfund Sites
- Air Quality

Land Use Strategies -- Two consultants developed land use strategies: Community Design Group, under an initial separate contract with DRPT; and Basile Baumann Prost & Associates, Inc., a member of the URS Consultants Team.

The Corridor is critical to the economic development of the Commonwealth and to an appreciation of its cultural heritage and natural beauty. To study land use in the Corridor, including existing and potential viable rail station location sites, DRPT retained the Community Design Group. Its study promotes growth in efficient and livable patterns and supports improved rail passenger service. The Community Design Group recommends improvements that would establish ridership and provide benefits to the cities and counties affected.

The following communities were selected for their development potential, their different geographical locations and the variety of community types they represent (from north to south): Lorton, Fairfax County; City of Fredericksburg; Carmel Church, Caroline County; Glen Allen, Henrico County.

To analyze land use, development, zoning, planning and development issues at individual station areas within the Corridor, Basile Baumann Prost & Associates, Inc., (BBP), a member of the URS Consultants Team, prioritized intercity rail station locations and identified opportunities for private sector/joint development.

Based upon previous evaluation of economic development factors, the community design factors addressed by the Community Design Group and the estimated existing and projected rail ridership, BBP established priorities for intercity rail stations. These priorities reflect a combination of private sector joint development opportunities and the feasibility factors related to ridership, travel time and station spacing.

CONCLUSIONS

The Washington, D.C.-to-Richmond Corridor continues to be the predominant rail transportation link between the Northeast Corridor and the eastern seaboard corridor, through the Carolinas and Georgia to Florida. Today, however, vehicular traffic, cars, trucks, busses and vans, along I-95 carry about 74 percent of the total passenger traffic through the Corridor. There is significant congestion on I-95, and there is concern that the congestion is adversely impacting the economic development of the region.

The *Rail Corridor Study* demonstrates how improvements to the freight/passenger rail facilities produces increases in track speed and capacity. The resulting reduced running time between Washington, D.C. and Richmond, combined with a higher frequency of trains, can provide a higher level of Corridor rail service, resulting in increased Corridor ridership.

The foregoing conclusions are entirely consistent with the September, 1994 *Final Report of the National Commission on Intermodal Transportation.* "The benefits of a National Intermodal Transportation System are enormous. Intermodalism offers the promise of: (1) lowering overall transportation costs by allowing each mode to be used for the portion of the trip to which it is best suited, (2) increasing economic productivity and efficiency, thereby enhancing the nation's global competitiveness, (3) reducing congestion and the burden on overstressed infrastructure components; (4) generating higher returns from public and private infrastructure investments, (5) improving mobility for elderly, disabled, isolated and economically disadvantaged; and (6) reducing energy consumption and contributing to improved air quality and environmental conditions."

Increased rail ridership offers the opportunity for communities which house rail stations to further develop economically viable and pleasant residential and commercial facilities in the proximity of those stations, with resulting environmental benefits to the affected communities.

APPENDIX A
EXCERPTS OF COMMENTS RECEIVED
WASHINGTON, D.C. TO RICHMOND RAIL CORRIDOR STUDY

Michael C. Crowe, Member, Virginia Association of Railroad Passengers, Alexandria, Virginia

As a lifelong resident and taxpayer of the Old Dominion, I declare my unwavering support for the proposed Washington - Richmond Rail Corridor Study. Any and all alternatives to the automobile should be immediately explored and developed!

Successful international competition demands efficient transportation and ease of intermobility as well as research and capital. The highways (and airways) have reached their saturation point where new growth (if even possible) would produce negative results (i.e. further suburban sprawl, pollution, noise, congestion, foreign oil dependence, etc.)

The State of Virginia now has the opportunity to demonstrate its historic leadership in developing this long needed alternative to driving. The argument that only rail transportation is "subsidized" is laughable when we consider how many billions of tax dollars have been spent over the last fifty years subsidizing the private auto.

L. O. Meadows, Fredericksburg, Virginia

As residents of the Fredericksburg area, it is most gratifying to see these innovative planning objectives being undertaken by the Virginia Department of Rail and Public Transportation to enhance the commuter and passenger service between Washington and Richmond.

Providing this modern and faster service between these two major Metropolitan areas will contribute significantly to an increased tax revenue base, a broadening of the environment for a real estate expansion of both homes and businesses. This should result in an increase in the employment numbers up and down the railway transit lines.

An excellent opportunity will be present to expanding both the domestic and foreign tourist population in these areas. The faster train will allow tourist to elect to visit outlining areas of Northern Virginia's vast history while visiting the Washington area. As expansion is experienced an excellent potential to lengthen the service to include the Tidewater-Hampton Roads area.

Warren H. Dillenbeck, P.E., Harrisonburg, Virginia

I would like to encourage you to make bigger plans. What we ultimately need is a high speed passenger train to serve the entire Richmond-to-Boston megalopolis. Such a train would link Richmond, Washington, Baltimore, Philadelphia, Newark/ New York, Hartford and Boston. Total population of these cities is over 15 million.

Why do we need good high speed rail service in this corridor? It is already a heavily populated region. Automobiles don't serve it well because highways are forever crowded and land to expand them is too precious. Air pollution from autos is already a problem.

Neither do commercial airlines serve the area well. The weather is often a problem. On the short hops involved, one often spends longer tied up in ground traffic than in the air.

High speed rail can outperform both auto and plane. It uses only a small right-of-way. It is non-polluting. It is quiet and comfortable and it can probably provide faster downtown-to-downtown service than either competing mode in most cases.

Could you persuade Governor Allen to promote this concept, and engage the governors of Maryland, Pennsylvania, New Jersey, New York, Connecticut and Massachusetts to join him in adopting a master plan for it? It could be a centerpiece of his administration. I would suggest the title "Megatrain" for this project.

The cost of this project would certainly be huge, and it would take years to complete. But it could be done piecemeal, as funds are available. Your proposal to improve the Richmond-Washington segment could be part of the Megatrain project.

John J. Cramsey, Woodbridge, Virginia

I have serious problems with your study to increase rail service between Washington and Richmond.

No matter how much your study seems to justify the increase in service by reducing travel time 20-30 minutes by increasing speeds and frequency of trains, one overriding aspect of this situation remains: the railroads own and control the rights of way over which the trains will run.

Philip S. Fraulino, Member, Metrowatch and Action Committee For Transit
Silver Spring, Maryland

The corridor can be served best by a quick remedy and a long term remedy. In the locations where the VRE(Virginia Rail Express) is presently providing service, this service should be upgraded to weekends. This is also what should be done with the MARC(Maryland Rail Commuter) lines. Thus the Baltimore-Richmond areas can have more frequent service to enjoy all the amenities and work requirements of the residents and commuters of this area. A special problem for addressal very soon is to make VRE the peoples train instead of the Virginia Federal Express. On quite a number of federal holidays the VRE does not run trains. Not all workers are federal. MARC often runs on these days that VRE does not run. This is the small solution that needs to be addressed by the people of Virginia and the entire region. The larger requirements were hinted at above. That is we are a large region that needs more than the scheduled AMTRAK trains. Amtrak realizes that the New York - Richmond area is an important part of the Northeast Corridor. But is this enough? The long term requirement will include the MARC/VRE/AMTRAK trains plus the new technological trains that are being developed for the so-called high speed corridors around the country. The Washington - Richmond corridor is a natural for one of these high -speed corridors just as the New York -Boston - Washington or whatever is planned.

E.L. Tennyson, P.E., Vienna, Virginia

There is a clear and pressing need for acceptable rail passenger service between Northern Virginia (Alexandria and Washington, D.C.) and Richmond, the Commonwealth capitol. Overloaded traffic and accidents on highway I-95 are obvious indications of need. The success of passenger train service between New York and Philadelphia, Los Angeles and San Diego, Chicago and Milwaukee and San Francisco (Oakland) and Bakersfield proves that the rail mode is as modern as Boeing 737's for trips of less than 300 miles where air travel is both costly and inconvenient.

The incremental approach to rail passenger service improvement is essential. Funding for true high-speed rail is unlikely and may be uneconomical. Amtrak's through train service to Newport News and Charlotte, N.C. must be an integral component of Richmond-Washington service to avoid wasteful duplication, or inadequate service. Restoring speeds of 79 miles per hour should pose no great problem, except on curves, which will need better superelevation and some speed restriction. CSXT must not be permitted to demand more than equity and the Amtrak law require. Eventual speeds of 90 miles per hour are a reasonable target.

With curves and intermediate stations, higher speeds will do more harm than good.

Richmond's Main Street station is an essential element in rail service. It is also needed now. The Commonwealth capitol and the city need a station. Staples Mill is fine for suburbia, but not for urban and capitol business. Until the Main Street Station is returned to active service, the Greater Richmond Transit Company must be retained to meet each train with a dedicated bus to and from a convenient downtown location, for $1.

The train schedule is key to its success. We need trains departing Richmond at 6:35am, 7:40am, 10:30am, 1:00pm, 3:45, 5:15 and 7:35pm. The first train would not operate weekends, and the 10:30am and 3:45pm trains are Amtrak through trains. Returning from Washington, trains are needed at 7:40am, 10:30am, 1:00pm, 44:30, 5:45 and 8:15pm. The first train would not operate on weekends and the 10:30am and 2:55pm trains are Amtrak through trains.

Brady Wassom, Fredericksburg, Virginia

As a native Arlingtonian who goes to Mary Washington College in Fredericksburg, I am always confronted with the problem of finding a reliable way to get to home or to school. I have found that train travel is more efficient than driving due to the increasing amount of congestion on I-95. It seems that more attempts to find solutions to the congestion problem by widening I-95 will be futile at the least. The Transportation Department of the United Kingdom has found this to be true in their country as a recent study concluded that "new roads often generate extra traffic rather than ease congestion." Though this may not be completely true in the United States, I am sure this conclusion definitely applies to U.S. highways.

Though a small part of the DRPT's study, it is important to note that improvements in the Washington, D.C. to Richmond rail corridor will be an important step in cutting carbon dioxide and pollution emissions from motor vehicles in this area.

John D. Detlefsen, Richmond, Virginia

This is a well thought-out study. The incremental options are clearly presented. Now "you pays your money and takes your choice" how far Virginia, CSXT, et al. are willing to go.

A specific comment about Stage 6, Item 3, Additional (3rd) track between Fredericksburg and Richmond:

You are certainly aware that a third track already exists between Doswell and Richmond (Main Street): the CSXT Piedmont Subdivision, which rambles around through Hanover and Atlee. Thus its best use in the context of this study would be as a through freight train relief line, continuing down the former Seaboard main line to the Centralia connection. Advantages:

- *Improvement $$ spent on this route should be substantially less than to build a third track through the Ashland impasse.*
- *Congestion at Acca Yard would be reduced.*

Recommendation:

- *Encourage CSXT (with $$ if need be) to keep the Doswell - Main Street leg intact. This is consistent with CSXT's plan to eliminate the diamond crossings at Doswell. (Stage 3, Item 2)*

Mary L. Studevant, Executive Staff Officer Defense Logistics Agency, Defense Supply Center Richmond, Richmond, Virginia

In regard to your study on the Washington. DC - Richmond Rail Corridor, this Center submits the following input:

a. *In addition to reducing the travel time and increasing the frequency of trains, there is a dire need for a stop at the Belvoir-Lorton Corridor. Our headquarters, the Defense Logistics Agency employing approximately 1,150 people, is located at Fort Belvoir.*

b. *In any given week, we have approximately 5 round trips to Fort Belvoir. As a result, the inclusion of a scheduled stop by the rail system would certainly add to the convenience and efficiency of our daily operations.*

Urchie B. Ellis, Attorney at Law, Richmond, Virginia

(1) The proposal for high speed rail between Richmond and Washington is a good long range idea, but there is no prospect of funding these huge amounts in even the remote foreseeable future. Many other parts of the U.S. have similar desires and goals, and many are much further advanced, and involve more dense populations, and will have priority for any available funds. We need to look at more feasible alternatives. Reduction in transit time is not nearly as important as good equipment, and more frequent, reliable, service.

(2) *There is a strong justification for increased service, and better quality equipment, etc. with the existing speeds between Richmond and D.C. A relatively small amount of money would do a lot. Thus far, Virginia has put little or no money into the existing Amtrak service, and does not give the support that other states do, e.g. North Carolina, This is the most needed policy change for Virginia, and would do much to improve public service.*

(3) *Likewise, a relatively small amount of money spent on track maintenance to permit increase in train speeds to 80 mph could help. However, the freight service needs must also be recognized.*

(4) *Spending money on Main Street Station will be totally wasted unless there is far more frequent train service, and perhaps the high speed service, as well as definite commitments by Greyhound, etc. The consultant's report should be re-examined in the light of comments I have previously made. People are not going to drive down town to catch an Amtrak train in order to ride an added 30 minutes each way on a slow train through the industrial area, nor are they likely to want to park their cars downtown when they can use the nicely located existing Amtrak station.*

(5) *The existing Amtrak station needs much improvement and should get some State funding. This should be priority ahead of Main St. station, or more consultant studies. Much money has already been wasted.*

Leo James Hill, Falls Church, Virginia

1. *With substantial new development, i.e. offices and residence at Quantico, immediate rail improvement should be undertaken. Recommission vacant building and install METRO style ticket vendors. Contract space for snack bar and install restrooms and telephones. Design and build a parking garage on limited area.* ***Reason:*** *With limited bidirectional rail service in place there would be greater inducement to utilize area and lessen congestion on I-95. There would also be an inducement (forced) for none riders to start train commuting with the ability to return home in an emergency.*

2. *Bypass Williamsburg on Hampton Leg. Plan and install train station and staging area for rental cars, tour buses and resort vans.* ***Reason:*** *Lessen congestion on I-95, increase tourism.*

R. Bruce Borthwick, George Mason University, Alexandria, Virginia

Thank you for providing a briefing session on the results of your studies on the Washington- D.C.-to Richmond Rail Corridor Public policy must address the highway congestion issue along the Interstate 95 highway and the Northeast United States' non compliance with the air pollution standards. The use of high speed passenger rail service is one alternative to these difficult issues. There are to items of concerned noted.

First, the briefings noted the need for high acceleration in any system adopted. This stands to reason because of the eight existing intermediate stations en route will consume 24 minutes(two minute dwell times) of the proposed 97 minutes overall schedule. To make the proposed schedule, the trains must achieve an 86 mile/hr average speed on the elsewhere portions of the journey- There is no slack in such a schedule for contingencies such as adverse weather, delay at a stop to embark(disembark) disabled passengers, etc. Increasing acceleration (deceleration) challenges physical limits of wheel adhesion and, more-important- passenger safety and Perceived comfort, These factors suggest that efforts must be made to increase maximum speeds to 110 miles per hour to assure consistent achievement and reliability of the proposed 97 and 90 minute schedules.

Second, the rail effort should include the expeditious relocations of the tracks from the west to the east side of the Potomac Yards before its commercial development. This would facilitate intermodal actions with Washington National airport. The same applies to Richmond where the Hampton line CSX trackage abuts the Richmond International Airport.

Henry S. Rodriguez, Falls Church, Virginia

I am pleased that the State of Virginia is finally thinking about improving rail service on the Washington-Richmond Corridor. This is long overdue. The neglect of rail service in this country by governments at all levels is criminal. We are a 3rd world nation where rail service is concerned. While I commend the State for making a start, I am greatly disappointed that planned improvements are so modest. We grossly subsidize the Interstate Highway System with ever increasing lanes and elaborate interchanges, while the proposed improvements talk only about grade crossings with some barrier improvements. Whether we like it or not we are greatly subsidizing bus and truck transportation through the Interstate System to the detriment of rail transportation. In my view 90 minutes from Washington to Richmond is much too slow to entice more

than a few to switch to rail transportation. The way a large percentage of people drive, the train wil only match driving time. If France, Germany and Spain can afford trains that do up to 186 miles per hour and the rest of the European Union planning to do likewise, we in Virginia should be able to plan for at least 125 miles per hour with greatly improved signaling and with a few more grade crossings at critical points.

Anthony A. Pelling Richmond, Virginia

"I have a vested interest as I travel by rail from Richmond to Washington about 4-5 times each month. The time taken is excessive to someone used to European rail services. Couldn't earlier savings be achieved by better maintenance of track and less heavy rolling stock? Platforms to bring exit/entrances to ease access would save huge costs and time. I hope Virginia consults not only station authorities but also local residents and travelers organizations. Only a popular ground swell of opinion can overcome resistance to investment in public transport in the most actively voting element of the Commonwealth. Faster progress to better services with most importantly greater frequency is more likely to get public support than mere sketched-out timing. Go for it!!.

Jack Berry, President, Metro Richmond Convention and Visitors Bureau, Richmond, Virginia

Obviously, from the tourist point of view, this makes it very accessible for the tourist to visit Washington D.C., come down to Richmond and even return in the same day or make it a night over which would obviously have an economic impact on the local community.

Another great advantage is for the convention business. We do many, many familiarization tours with meeting planners that are based in national associations in Washington D.C. and in the Northern Virginia area.

So in conclusion, we look at it as an advantage for bringing in more tourists from the northeast corridor. We look for it to have an economic impact of those guests spending the night, using the restaurants, and shopping at the retail stores, as well as the possibility of hosting national conventions here, and finally, of course, relocation of those national associations into the workplace of Metro Richmond.

Doug Gray, Richmond, Virginia

I just wanted to say that Virginia Association of Realtors is supportive of studies of increasing transportation efficiency. We're very concerned that we're running out of options for inner-suburban travel. We're very supportive of this type of study, but we want these things to be funded with broad-based taxes.

Tom Sayles, Richmond, Virginia

I'm here supporting the rail corridor improvements between Richmond and Washington D.C. It's a viable alternative to the expensive improvements along the interstate corridor.

Also, as a user of the rail corridor, I travel to and from Washington a couple of times a month and am glad to see that these improvements are underway and the more extensive improvements are in the planning stages.

I wish the Department of Rail and Public Transportation and the Commonwealth Transportation Board continued success in their search for funding and support for the rail corridor improvements.

Carlton McKenney, Richmond, Virginia

I'm very much interested in the corridor study. I think the consultants have done a good job and presented it clearly. However, there seems to be one omission and this is the piece of track called the Piedmont Subdivision which extends from the Main Street Station through Doswell and to the west.

At the moment it's a business piece of tracking because the James River Line has been blocked, flooded. I think it should be preserved as a possible high-speed corridor for futures trains. There is some threat now to abandon parts of it to sell off the real estate.

Richard L. Beadles, President, M.G.T. Realty Advisors, Richmond, Virginia
Richmond Chamber of Commerce

For 18 months the Chamber has had a task force working on transportation issues that are informant to the economic and social health of the greater Richmond area. I have been involved in that effort throughout, and most recently chaired the Rail and Public Transit Subcommittee of the task force.

The Chamber believes that good transportation infrastructure and service are critical to attracting and retaining business and industry to our region. Our studies have convinced us that rail must play an important role in the total mix of transportation solutions for the future.

The most recent phase of the Chamber's transportation study task force resulted in a rather comprehensive report that was released last Thursday, January 18. I have a copy here in my hand and I would like to submit it for the record of this hearing because it speaks directly to the subject of rail service improvements.

Among the summary recommendations, to be found on page 2 of the report, you will find that the Chamber's task force urges support for the Main Street Station project, and more to the point of this public hearing, support of Amtrak service improvement generally, but with special emphasis on the Richmond-Washington corridor improvements, including encouraging General Assembly funding.

I mentioned Main Street Station only because it is now recognized that without significant intercity rail passenger service improvements to and from Main Street Station, that commendable project will not achieve its full potential.

John W. Newell, Mayor of Ashland.

First of all, I would like it clear I'm not speaking for the counsel as a whole because we haven't met since we thought about this hearing.

Ashland has worked hard to entice ridership at the Ashland Station, and as you may note from the increased numbers of Amtrak passengers that take the train in Ashland, we feel we have been successful.

Two examples from this past year include a community schedule, some bumper stickers that promote use of Amtrak service in Ashland, produced by the Chamber of Commerce and some other activities that the town has been involved in.

I support the improvements for the Richmond-Washington rail corridor. My reasons:

I see this as a significant economic development strategy and one that would improve access for our area to the northeast corridor. Rail is the only logical and most cost-effective method of transportation between our area and the northeast market from Washington north.

I hope that with the return of train service to downtown Richmond that an a.m. southbound and p.m. northbound service would be restored so that reverse commuting will again be possible for not only the Washington area, but also from Ashland to and from downtown.

The improvements to this rail corridor will have other positive affects including improved air quality, reduced sprawl, and reduced development costs.

One concern, however, that I need to note that I have heard from citizens of Ashland that relates to the proposal to increase daytime speeds through our town from 35 to 45 miles per hour. As you may know, Ashland is unique in this corridor and is the only municipality where the community is bisected by the rail-line. There are significant safety issues related to this proposed increase in speed.

Elaine Terretta-Benko, Richmond, Virginia

My questions regarding the proposed draft are as follows:

Number 1: Localized agreements allow riders to use rail service free in the second region while paying for the first leg of their commuter trip during commuter hours. How does this figure into the proposal, and are any additional revenues projected as a result?

Number 2: What is being done by environmental impact resulting from increased train service? Amtrak (white piles on the ground and groundwater contamination)

Number 3: How do we avoid what happened in New Mexico, the train derailment along the VRE lines? Is there one major rail electronic surveillance location and is that in Richmond?

Number 4: CWT devices. Is this a reality now? Needs changing. Some crossings activate CWT, but there is no train approaching.

Number 5: What is the timetable for moving/eliminating Staples Mill to the Main Street Station?

Number 6: What marketing techniques will attract additional ridership?

Number 7: I love the 90 miles per hour and the one train per hour. Realistically, how futuristic is this?

Number 8: The cheapest round-trip Amtrak rates are presently $30 a day, too high for commuters. How will the rates be determined and will they be attractive enough for mom to take her child from Richmond to Union Station to the zoo or Smithsonian, et cetera?

Number 9: Will additional passenger service speed be subject to freight-train traffic? What will be the relationship between Conrail, Amtrak and the VRE? Will Amtrak provide personal and/or expertise in VRE's operation along the rail corridor?

Number 10: Are there considerations for a track stop at or near the Richmond International Airport for east destinations and/or Richmond intercity connections with north and south rail connections?

Albert Meyer, Chairman of the Economic Development Committee of the Chesterfield Business Counsel, Richmond, Virginia

I think this is a fantastic idea to be able to have high-speed trains between Washington and Richmond, and Richmond and Washington. The trains will run in both directions so it would benefit both the Northern Virginia folk as well as the folks here in Central Virginia.

I believe that having it tied in so that you can get to Byrd Airport will help the economic growth of the Airport, especially if you're in Spotsylvania County, or Caroline County, or the City of Fredericksburg coming south you can use the Richmond Airport instead of Washington National.

Also, it will help the folks here if you want to go someplace across the great water to Europe, you could possibly make a very high-speed trip to get to Dulles Airport.

Stephen Meyers Chairman, Citizen Transportation Advisory Committee of the Richmond Metropolitan Planning Organization

I have familiarized myself with this Washington-Richmond Rail Corridor Study and I think it will be a tremendous improvement to the available rail service, future rail service to Richmond and it will help to relieve some of the congestion on 95 that currently exists and that may be created in the future.

I commend the staff of Virginia Department of Rail and Transportation for their tenacity in this work and the thoroughness with which they have done the job. I'm also gratified to hear that the Commonwealth Transportation Board has already started funding,

designating funding for some of the projects that have been enumerated here and that now this project may actually come to life in the very near future.

Anthony Harrigan, Washington, D.C.

I urge that Virginia take appropriate measures to increase passenger rail service between Richmond and Washington. I have family in Richmond and would welcome improved service.

I'm also interested in the maintenance of good rail service between Washington and Charlottesville and hope that in due course rail passenger service between Richmond and Charlottesville will be resumed. Again, I have family in Charlottesville interested in these services.

Otis Patton, Chesterfield County, Virginia

I'm here tonight to express an opposing viewpoint to this expenditure of what I think is a tremendous amount of money to be spent to benefit a relatively small number of people.

The $362 million about which we're talking, and you look at the number of passengers who ride the rails or might actually ride the rails between here and Washington in the very near future or the foreseeable future.

It appears to me we're spending way, way, way too much money to save these relatively few people a small amount of time, 30 minutes per trip on each one-way run save 30 minutes.

I'm not opposed to the rail traffic, but I feel that it needs to be done in a cost-effective manner to where the benefits that are derived from these improvements would equal the cost of making these improvements. I don't think that's being done here.

Last but not least, if this money is in fact spent, how much of this money is going to go into the pockets of CSX, improving their facilities, which I'm sure they will continue to own and will continue to charge us for the use of those facilities even though we the taxpayers are paying for the improvements.

Samuel Y. Bowling, Jr., Falls Church, Virginia

I try to take the train whenever I can when I go places, but sometimes it's not always possible. I find that the Washington Richmond corridor is in need of better passenger services, primarily because most of the people who benefit are the ones at the Richmond end of the corridor much more than Washington.

Right now the services for people going from Washington to Richmond do not allow them enough layover time in Richmond to make the trip by train and back in one day, and this has been going on like this for many years, and the American people really need better rail passenger services.

Walter Loftin, Alexandria, Virginia

Virginia has a long history of indifference to the passenger rail service with a few exceptions. Today, few areas of the State are served and the most served area, Washington to Richmond, is very inadequate.

This corridor should have at least 30 minute frequency with much lower fares. Many stations need cleaning and upgrading. Virginia should acquire all abandoned railroad beds and bank them for immediate future service.

Facts that are not often considered in decisions to expand and rebuild rail-lines work--the value of more rail-lines far exceeds their cost and some of these values are little noted: Very friendly to the environment, reduces accidents, saves lives, less vulnerable to adverse weather.

John Czyzewski, Chairman, Board of Directors of the Virginia Association of Railway Patrons, Fairfax, Virginia.

Our organization and I, myself, personally are very much supportive of as rapid a development of the high-speed rail corridor as possible. We're strongly supportive of getting to the Phase 6 with the least amount of delay.

We are very supportive of all the efforts and we encourage the Virginia Department of Rail and Public Transportation, the Virginia General Assembly, and the Governor to move as quickly as possible to implement the recommendations that have been made and to pursue to completion all six phases of the anticipated corridor development for high-speed rail passenger service.

Jerry Deily, Charlottesville, Virginia.

My only comments is that I would like to commend the Virginia Department of Rail and Public Transportation on this study and I would also suggest to them in future efforts, they might want to have studies on additional corridors such as Charlottesville to Washington, Charlottesville to Richmond, and Charlottesville to Roanoke.

As part of the support for future applications in these corridors, I would suggest that there be in addition to all the other trust funds, transportation trust funds in Virginia, a rail trust fund with a dedicated funding source that hopefully will be able to implement what we see in this study and hopefully others in the future.

Cliff Roberts, Arlington, Virginia

I think it's very important to balance our transportation system. We are way heavily dependent on highway transportation and an increase in different modes is welcomed and encouraged.

The Commonwealth is somewhat behind many other States, especially states in the northeast, and I think it's high-time we catch up with them as an example of what we can do.

I say that I support this, I would support this to the extent of an increase in tax on gasoline or other taxation funding mechanisms to support these improvements.

Miles Paul Member, Virginia Association of Railway Patrons, Arlington, Virginia

I feel that there are a lot of positive things in the plans that have been unveiled at this meeting. I think it would be excellent if the funding is obtained for these plans and the project goes forward as envisioned.

I hope that the Virginia Department of Rail and Public Transportation can avoid, continue to avoid the traps of becoming excessively concerned with producing studies as opposed to actually taking action.

I also hope that this project doesn't fall into the trap of spending lots of money that doesn't result in significant speed improvements because I think there have been other projects in other areas where large expenditures have not resulted in significant speed improvements, for example, the northeast corridor between Boston and New York.

I hope that as the Department explores new technologies for improving speeds they don't lose sight of the fact that speeds of between 100 and 125 miles an hour have already been achieved using conventional technologies in North America, and it would be a shame if the pursuit of new and/or exotic technologies became an end in itself and failed to produce as good results as have been produced using conventional technologies.

I hope that when the project, or as the project is implemented, ways are found to avoid the excessive labor expenditures that have been associated with a lot of rail projects in the past.