

**MINUTES  
OF  
MEETING OF STATE HIGHWAY COMMISSION  
NATURAL BRIDGE, VIRGINIA  
ON  
OCTOBER 27, 1965**

A special meeting of the State Highway Commission of Virginia was held at the Natural Bridge Hotel, Natural Bridge, Virginia, at 4:00 p.m. on October 27, 1965, to consider a proposal for sale by the Commission of \$34 Million Toll Revenue Bonds (series 1965) to finance the costs of rights of way, engineering expense, construction and bond services for the proposed Norfolk-Virginia Beach Toll Road.

Present at this meeting were Messrs. Fugate, Chilton, Fitzpatrick, Holland, Landrith, McNamee, Sclater and Weaver, Members of the Commission.

Mr. A. B. Kura presented to the Commission the following:

- Mr. Robert L. Mitchell of Mitchell, Perching, Shetterly and Mitchell, Attorneys, New York City, Bond Counsel.
- Mr. Craighton Blase and Mr. James T. Cavanaugh, of Alex. Brown and Sons, Baltimore, Md., Financial Advisors.
- Mr. William A. Stevens of J. C. Wheat & Co., Richmond, Virginia, Chairman of Virginia Investment Banker group with whom the Commission had previously negotiated the bond sale, subject to acceptable price.
- Mr. Elmer K. Tinby of Howard, Needles, Tammen and Bergendoff, New York City, Consulting Engineers.

Mr. Stevens submitted the Underwriters' offer to purchase the \$34 Million principal amount of State of Virginia Toll Revenue Bonds (series 1965), dated July 1, 1965, due January 1, 2005, and bearing interest at the rate of 4% per annum, at a price of 98.5% of the principal amount of the bonds, plus interest accrued from their date to the date of closing on or about December 9, 1965. The Underwriters' offer further included the provision that a bona fide public offering would be made of all the bonds at not in excess of 100.5% of the principal amount thereof, plus accrued interest from July 1, 1965 to the date of delivery.

\$34,000,000

STATE OF VIRGINIA  
Toll Revenue Bonds (Series 1965)  
(Norfolk-Virginia Beach Toll Road)

PURCHASE CONTRACT

October 27, 1965

State Highway Commission of Virginia  
Richmond, Virginia

Sirs:

The undersigned, acting on behalf of ourselves, and on behalf of the other Underwriters named in the list attached hereto marked Exhibit 1, as said list may from time to time be changed by us prior to the Closing (we and such other Underwriters as finally determined being herein collectively called the "Underwriters"), offer to enter into the following agreement with you (herein sometimes referred to as the "Commission") which, upon your acceptance of this offer, will be binding upon you and upon the Underwriters. We need not advise you of any change in such list of Underwriters, except that we shall in any event remain on such list as Underwriters. This offer is made subject to your acceptance by execution of this Purchase Contract and its delivery to us at or prior to 6:00 P.M., Eastern Standard Time, on October 27, 1965.

1. Upon the terms and conditions and upon the basis of the representations hereinafter set forth, we and the other Underwriters, jointly and severally, hereby agree to purchase from you for offering to the public, and you hereby agree to sell to the Underwriters for such purpose, all (but not less than all) of \$34,000,000 principal amount of State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road), dated July 1, 1965, due January 1, 2005 (herein called the "Bonds"), and bearing interest at the rate of  $4\%$  per annum, payable semi-annually on the 1st days of January and July in each year, at the purchase price of  $98.75\%$  of the principal amount of the Bonds, plus interest accrued on the Bonds from their date to the date of the Closing. The Bonds shall be as described in, and shall be issued and secured under and pursuant to, a Trust Indenture, dated as of July 1, 1965, to be entered into between the Commission and Virginia National Bank, Norfolk, Virginia, as Trustee (herein called the "Trust Indenture"), in the form authorized by you by resolution adopted October 27, 1965, with only such changes therein as shall be mutually agreed upon between you and the undersigned.

2. The Underwriters have heretofore designated the undersigned as their representatives. We represent that J. C. Wheat & Co. has been duly authorized to execute this Purchase Contract and to act thereunder on behalf of the other Underwriters. We further represent that J. C. Wheat & Co., Anderson & Strudwick, Smith, Barney & Co. Incorporated, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Allen & Company, F. W. Craigie & Co., Inc., Investment Corporation of Norfolk, Scott & Stringfellow and Strader & Company, Inc. have been authorized to be named the "principal underwriters" as defined in, and for all purposes of, the Trust Indenture.

3. The Underwriters agree to make a bona fide public offering of all of the Bonds at not in excess of the initial public offering price, which shall be  $100.5\%$  of the principal amount of the Bonds, plus interest accrued thereon from July 1, 1965 to the date of delivery.

4. Delivered to you herewith is a certified or bank cashier's or bank treasurer's check payable to the order of the State Treasurer of Virginia, in Richmond Clearing House funds, for \$340,000, being 1% of the principal amount of the Bonds. You agree to hold this check uncashed until the Closing as security for the performance by the Underwriters of their obligation to accept and pay for the Bonds at the Closing, and in the event of their compliance with such obligation such check shall be applied to the purchase price of the Bonds as provided in Paragraph 7 hereof. In the event you do not accept this offer, such check shall be immediately returned to us. In the event of your failure to deliver the Bonds at the Closing, or if you shall be unable to satisfy the conditions of the obligations of the Underwriters contained herein, or if the obligations of the Underwriters shall be terminated for any reason permitted by this Purchase Contract, such check shall be immediately returned to us. In the event that the Underwriters fail (other than for a reason permitted hereunder) to accept and pay for the Bonds at the Closing as herein provided, such check shall be retained by you as and for full liquidated damages for such failure and for any defaults hereunder on the part of the Underwriters.

5. At the time of or before your acceptance hereof, you shall deliver to us

(a) one copy of an Official Statement of the Commission, in the form attached hereto and marked Exhibit 2, dated October 27, 1965, relating to the Bonds (which, together with the maps, the engineering report of Howard, Needles, Tammen & Bergendoff and the traffic report of Wilbur Smith and Associates included therein, is herein called the "Official Statement") executed on behalf of the Commission by the State Highway Commissioner, and

(b) one certified copy of the Trust Indenture in the form authorized by you by resolution adopted October 27, 1965.

You authorize any and all of this material, including specifically the Official Statement and the Trust Indenture, and the information contained therein, to be used in connection with the public offering and sale of the Bonds.

6. You represent to each of the Underwriters that, both at the time of your acceptance hereof and at the time of the Closing, the statements and information contained in the Official Statement will be true and correct in all material respects, and the Official Statement will not omit any statement or information which should be included therein for the purpose for which the Official Statement is to be used, or which is necessary to make the statements and information contained therein not misleading in any material respect.

7. At 10:00 A.M., Eastern Standard Time, on December 9, 1965, or at such other time or on such other day or later business day as shall have been mutually agreed upon by you and us, you will deliver to us the Bonds in definitive form, duly executed and authenticated, together with the other documents hereinafter mentioned; and we, on behalf of the Underwriters, will accept such delivery and pay the purchase price of the Bonds as set forth in Paragraph 1 hereof (less the payment made by the check referred to in Paragraph 4 hereof), in Federal funds. Payment for the Bonds shall be made at the office of the State Highway Commission, Richmond, Virginia; provided, however, that if the Commission should be unable to deliver the Bonds at 10:00 A.M., Eastern Standard Time, on December 9, 1965, in accordance with this Purchase Contract, for any reason beyond the control of the Commission, we agree to extend the date of the Closing (hereinafter defined) to a date not more than thirty (30) days after December 9, 1965, on which the Closing can be held in accordance with this Purchase Contract. Delivery of the Bonds shall be made at Chemical Bank New York Trust Company, New York, New York, and First and Merchants National Bank, Richmond, Virginia, as the undersigned may request not more than ten days prior to the Closing. This payment and delivery is herein called the "Closing". The Bonds will be delivered as coupon bonds or as registered bonds without coupons in authorized denominations and registered in such names and to such extent as the undersigned may request not less than ten days prior to the Closing.

8. The obligations of the Underwriters hereunder are subject to the following conditions:

(a) At the time of the Closing, (i) the Trust Indenture shall be in full force and effect, and shall not have been amended, modified or supplemented except as may have been agreed to in

writing by us, and you shall have duly adopted and there shall be in full force and effect such additional resolutions as shall, in the opinion of Mitchell, Pershing, Shetterly & Mitchell, Bond Counsel, be necessary in connection with the transactions contemplated hereby, and (ii) the Commission shall perform or have performed all of its obligations required under or specified in this Purchase Contract, the Official Statement and the Trust Indenture to be performed at or prior to the Closing;

(b) We may terminate this agreement by notification to you if at any time at or prior to the Closing a decision by The Tax Court of the United States or by any other court authorized under the constitution or laws of the United States shall be rendered, or a regulation, official ruling or official statement by or on behalf of the Treasury Department of the United States, the Internal Revenue Service or other governmental agency shall be made, with respect to Federal taxation upon revenues or other income of the general character expected to be derived by you or upon interest received on bonds of the general character of the Bonds, which in our opinion materially affects the market price of the Bonds; and

(c) At or prior to the Closing, we shall receive the following documents:

(1) The unqualified approving opinion of Mitchell, Pershing, Shetterly & Mitchell, Bond Counsel, dated the day of the Closing, in substantially the form attached hereto and marked Exhibit 3,

(2) A certificate dated the day of the Closing by the Commission and by the Attorney General or an Assistant Attorney General of the Commonwealth of Virginia to the effect that no litigation is pending or, to the knowledge of the signers of such certificate, threatened to restrain or enjoin the issuance or delivery of any of the Bonds, or the collection of tolls and revenues pledged or to be pledged to pay the principal of, and the interest on, the Bonds, or in any way contesting or affecting the validity of the Bonds or Trust Indenture, of this Purchase Contract, or of the collection of said tolls and revenues or the pledge thereof, or contesting the existence or powers of the Commission or any authority with respect to the Bonds or Trust Indenture, which certificates shall be in form and substance acceptable to us (but in lieu of such certificate we may in our sole discretion accept certificates by Bond Counsel and by the Attorney General or an Assistant Attorney General of the Commonwealth of Virginia, acceptable to us in form and substance, that in their opinion the issues raised in any such pending or threatened litigation are without substance or that the contentions of any plaintiffs therein are without merit), and

(3) Such additional certificates, instruments and other documents as we may deem necessary to evidence the truth and accuracy as of the time of the Closing of your representations herein contained and the due performance or satisfaction by you at or prior to such time of all agreements then to be performed and all conditions then to be satisfied by you.

If you shall be unable to satisfy the conditions of the obligations of the Underwriters contained in this Purchase Contract, or if the obligations of the Underwriters shall be terminated for any reason permitted by this Purchase Contract, this Purchase Contract shall terminate and neither the Underwriters nor you shall be under further obligation hereunder, except that the check referred to in Paragraph 4 hereof shall be returned to us by you.

9. The Underwriters shall be under no obligation to pay any expenses incident to the performance of your obligations hereunder including, but not limited to, the fees or disbursements of Howard, Needles, Tammen & Bergendoff, Wilbur Smith and Associates and Bond Counsel, or of any other consultant not retained directly by us, and the cost of preparation, printing or other reproduction, execution or delivery of the Trust Indenture and the Official Statement, or the Bonds, or certified copies of any of the foregoing. We agree to pay all our expenses.

10. Any notice or other communication to be given to you under this Purchase Contract may be given by delivering the same in writing at your address set forth above, and any notice or other communication to be given to the Underwriters under this Purchase Contract may be given by delivering the same in writing to J. C. Wheat & Co., 1001 East Main Street, Richmond, Virginia.

11. This Purchase Contract is made solely for the benefit of you and the Underwriters (including the successors or assigns of any Underwriter) and no other person shall acquire or have any right hereunder or by virtue hereof. All your representations and agreements in this Purchase Contract shall remain operative and in full force and effect, regardless of (a) any investigation made by or on behalf of any of the Underwriters, (b) delivery of and payment for the Bonds hereunder, and (c) any termination of this Purchase Contract.

Very truly yours,

J. C. WHEAT & CO.  
ANDERSON & STRUDWICK  
SMITH, BARNEY & CO. INCORPORATED  
MERRILL LYNCH, PIERCE, FENNER & SMITH  
INCORPORATED  
ALLEN & COMPANY  
P. W. CRAIGIE & CO., INC.  
INVESTMENT CORPORATION OF NORFOLK  
SCOTT & STRINGFELLOW  
STRADER & COMPANY, INC.

By: J. C. WHEAT & Co.

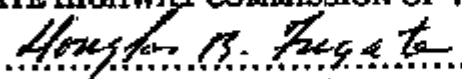
By:   
.....

Accepted by resolution adopted at National Bridge, Virginia,

..... 5:00 P.M., E.S.T., October 27, 1965.

STATE HIGHWAY COMMISSION OF VIRGINIA

By .....

  
.....  
State Highway Commissioner

(SEAL)

**LIST OF UNDERWRITERS**

Abbott, Proctor & Paine  
Allen & Company  
Anderson & Strudwick  
Auchincloss, Parker & Redpath  
Baker, Watts & Co.  
Blyth & Co., Inc.  
Branch, Cabell & Company  
C. F. Cassell & Co., Inc.  
Courts & Co.  
F. W. Craigie & Co., Inc.  
Davenport & Co.  
Francis I. du Pont & Co.  
Eastman Dillon, Union Securities & Co.  
Estabrook & Co.  
First Securities Corporation  
Folger, Nolan, Fleming & Co., Incorporated  
Galleher & Co., Inc.  
Robert Garrett & Sons Incorporated  
Glore Forgan, Wm. R. Staats Inc.  
Hayden, Stone, Incorporated  
J. J. B. Hilliard & Son  
Horner, Barksdale & Co.  
Interstate Securities Corporation  
Investment Corporation of Norfolk  
Kaufman Bros. Co.  
Leedy, Wheeler & Alleman, Incorporated  
Lehman Brothers  
Mackall & Coe  
Mason & Company Incorporated  
Mason-Hagan, Inc.  
Mason & Lee, Inc.  
Merrill Lynch, Pierce, Fenner & Smith Incorporated  
Miller & Patterson  
John Nuveen & Co. (Inc.)  
Phelps, Fenn & Co.  
Salomon Brothers & Hutzler  
Scott & Stringfellow  
Smith, Barney & Co. Incorporated  
Stein Bros. & Boyce, Inc.  
Strader & Company, Inc.  
Tripp & Co., Inc.  
B. J. Van Ingen & Co. Inc.  
G. H. Walker & Co.  
Storer Ware & Company  
Edward G. Webb & Co., Inc.  
Weeden & Co., Incorporated  
J. C. Wheat & Co.  
White, Weld & Co.  
Wyllie & Thornhill, Inc.

LAW OFFICES OF  
**MITCHELL, PERSHING, SHETTERLY & MITCHELL**

38th FLOOR  
20 BROAD STREET  
NEW YORK, N.Y. 10004

(MARBLE AND MITCHELL)  
(MITCHELL AND PERSHING)  
TEL. WHITEHALL 4-7888  
AREA CODE 212

ROBIE L. MITCHELL  
G. RUSSELL SHETTERLY  
ROBERT L. MITCHELL  
RICHARD S. PETTY  
JOSEPH GUANDOLO  
  
GEORGE E. BOYLE  
HOWARD W. WHITAKER, JR.

(Proposed Draft of Opinion)

December \_\_, 1965

STATE HIGHWAY COMMISSION OF THE STATE OF VIRGINIA,  
Richmond, Virginia.

Gentlemen:

We have examined Article 8, Chapter 3, Title 33, Code of Virginia, 1950, as amended (herein called the "State Revenue Bond Act"), and certified copies of the proceedings of the State Highway Commission of the State of Virginia (herein sometimes called the "Commission"), in authorizing the execution and delivery of the Trust Indenture (hereinafter mentioned) and the issuance of the State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road) hereinafter described, and other proofs submitted relative to the issuance and sale of such bonds.

The bonds referred to are described as follows:

\$34,000,000

STATE OF VIRGINIA  
Toll Revenue Bonds (Series 1965)  
(Norfolk-Virginia Beach Toll Road)

Dated July 1, 1965.

Maturing January 1, 2005.

Bearing interest at the rate of \_\_\_\_% per annum, payable  
semi-annually on January 1 and July 1 in each year.

The bonds are issuable as coupon bonds in the denomination of \$5,000 each, and as registered bonds without coupons in denominations of \$5,000 or any multiple thereof. At the principal office of the Trustee under the Trust Indenture, in the manner and subject to the limitations and conditions provided in the Trust Indenture, registered bonds without coupons may be exchanged for an equal aggregate principal amount of coupon bonds of the same series, bearing interest at the same rate and having attached thereto coupons representing all unpaid interest due or to become due thereon, or of registered bonds without coupons of the same series, of authorized denominations and bearing interest at the same rate, and coupon bonds with all coupons appertaining thereto representing all unpaid interest due or to become due thereon may in like manner be exchanged for an equal aggregate principal amount of registered bonds without coupons of the same series, of authorized denominations and bearing interest at the same rate, all as provided in the Trust Indenture.

The bonds issued initially consist of coupon bonds and registered bonds without coupons and are appropriately numbered.

Both the principal of and the interest on the bonds are payable in any coin or currency of the United States of America which on the respective dates of payment thereof is legal tender for the payment of public and private debts. The principal of coupon bonds and the interest thereon are payable at the principal office of Virginia National Bank, in the City of Norfolk, Virginia, or, at the option of the holder, at the principal office of Chemical Bank New York Trust Company, in the Borough of Manhattan, City and State of New York. The principal of all registered bonds without coupons is payable at the principal office of the Trustee under the Trust Indenture. The interest on all registered bonds without coupons is payable by check or draft mailed to the registered owner.

The bonds of this series at the time outstanding may be redeemed prior to their maturity, on thirty (30) days' published notice and otherwise as provided in the Trust Indenture, either

(a) in whole, on any date not earlier than January 1, 1976, at the option of the Commission, from any moneys that may be made available for such purpose, at the principal amount of the bonds to be redeemed, together with the interest accrued thereon to the date fixed for redemption, plus a premium of 4% of such principal amount if redeemed on or prior to December 31, 1980, 3% if redeemed thereafter and on or prior to December 31, 1985, 2% if redeemed thereafter and on or prior to December 31, 1990, 1% if redeemed thereafter and on or prior to December 31, 1995,  $\frac{1}{2}$  of 1% if redeemed thereafter and on or prior to December 31, 2000, and without premium if redeemed thereafter, or

(b) in part, on any interest payment date not earlier than January 1, 1971, from moneys in the State of Virginia Toll Revenue Bonds (Series 1965) Interest and Sinking Fund (herein called the "Sinking Fund"), at the principal amount of the bonds to be redeemed, together with the interest accrued thereon to the date fixed for redemption, plus a premium of 3% of such principal amount if redeemed on or prior to July 1, 1975, 2% if redeemed thereafter and on or prior to July 1, 1980, 1% if redeemed thereafter and on or prior to July 1, 1985,  $\frac{1}{2}$  of 1% if redeemed thereafter and on or prior to July 1, 1990, and without premium if redeemed thereafter.

The moneys in the Sinking Fund available for the purchase or redemption of bonds shall be allocated to all series of bonds outstanding under the Trust Indenture in the manner provided in the Trust Indenture.

If less than all of the bonds of a series shall be called for redemption, the particular bonds or portions of registered bonds without coupons to be redeemed from such series shall be selected by lot as provided in the Trust Indenture.

We have also examined two of said bonds (bonds numbered A1 and RA1) as executed and authenticated.

From such examination we are of the opinion that:

1. Said \$34,000,000 State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road) have been duly authorized and issued for the purpose of paying the cost of a toll road extending from the interchange of Interstate Routes 64 and 264, immediately south of U. S. Route 58, in the City of Norfolk, Virginia, to a point in the City of Virginia Beach, Virginia, east of Londonbridge and west of U. S. Route 60, having an eastbound roadway terminus at 21st Street and a westbound roadway terminus at 22nd Street in the City of Virginia Beach (said toll road being herein called the "Project").

2. As authorized by the State Revenue Bond Act and by said proceedings, a trust indenture dated as of July 1, 1965 (herein called the "Trust Indenture") has been duly executed by and between the State Highway Commission of the State of Virginia and Virginia National Bank, in



the City of Norfolk, Virginia, as trustee, which is a valid and binding trust indenture for the security of the bonds in accordance with its terms and contains reasonable and sufficient covenants and provisions in accordance with law with respect to the construction of the Project, the custody and application of the proceeds of the bonds, the collection and disposition of revenues, the proper maintenance, repair and operation of the Project, the conservation and application of all funds, the safeguarding of moneys on hand or on deposit, and the rights and remedies of the Trustee under the Trust Indenture and the holders of the bonds.

3. The Trust Indenture provides that, if and to the extent necessary to provide additional funds for completing payment of the cost of the Project, additional series of bonds may be issued under the Trust Indenture for such purpose. The Trust Indenture also provides, if and to the extent then permitted by law, for the issuance, from time to time, under the conditions, limitations and restrictions therein set forth, of additional series of bonds for the purpose of paying all or any part of the cost of any additions, improvements and enlargements to the Project (the Project, together with any additions, improvements and enlargements thereto, being herein called the "Toll Road").

4. Said \$34,000,000 State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road) are valid and binding special obligations of the State of Virginia, by the State Highway Commission as an agency thereof, payable solely from the Sinking Fund, a special fund created by the Trust Indenture, which special fund is pledged to and charged with the payment of the principal of and the interest on all bonds issued under the Trust Indenture.

5. The Trust Indenture, in accordance with and as required by the State Revenue Bond Act, provides for the fixing, revising, charging and collecting by the Commission of tolls for the use of the Toll Road and for revising such tolls from time to time in order that such tolls and other revenues of the Toll Road will be sufficient to provide funds to pay the cost of maintaining, repairing and operating the Toll Road and to pay the principal of and the interest on all bonds issued under the Trust Indenture as the same shall become due and payable, and to create reserves for such purposes. The Trust Indenture also provides for the deposit of a sufficient amount of such tolls and other revenues, over and above such cost of maintenance, repair and operation and reserves for such purposes, to the credit of the Sinking Fund to pay such principal and interest.

6. The State of Virginia is not obligated to pay the bonds or the interest thereon except from the Sinking Fund, and the faith and credit of the State are not pledged to the payment of the principal of or the interest on the bonds, and the State is not, directly or indirectly or contingently, obligated to levy or to pledge any form of taxation whatever therefor or to make any appropriation for the payment of the principal of or the interest on the bonds except from the Sinking Fund.

7. The interest on the bonds is exempt from all present Federal income taxes.

Respectfully submitted,

(To be signed) Mitchell, Pershing, Shetterly & Mitchell

Following receipt of this offer the Commission discussed it in executive session with the Financial Advisors. It was the opinion of Messrs. Riaps and Cavanaugh that both the interest rate and the discount rate were excellent considering marketing experience with comparable issues over the country in recent months. It was also their opinion that these rates would have been somewhat higher had this bond sale been offered to underwriters on a competitive bid basis, the negotiated agreement with the Virginia Banker Group having permitted time before pricing the issue to work up local and national interest among the dealers and institutional buyers.

Following further discussion by Commission Members with Messrs. Riaps, Cavanaugh, Mitchell and Eurs, it was moved by Mr. Holland, seconded by Mr. Landrith, that the Underwriters' offer be accepted. The motion was unanimously carried.

Mr. Robert L. Mitchell, Bond Counsel, then completed the attached Purchase Contract in conformance with the accepted offer and it was executed by Mr. Fogate and Mr. Stevens.

The following resolutions were then presented to the Commission and explained by Mr. Mitchell:

**A RESOLUTION ACCEPTING AND APPROVING  
THE REPORTS OF THE CONSULTING ENGI-  
NEERS AND THE TRAFFIC ENGINEERS.**

**Moved by Mr. Landrith, Seconded by Mr. Holland, that**

**WHEREAS, Howard, Needles, Tammen & Bergendoff, Consulting Engineers, of New York, New York, have made investigations and studies and have prepared and filed with the State Highway Commission their engineering report dated October 25, 1965, describing a toll road project, approximately 12.1 miles in length, extending from the interchange of Interstate Routes 64 and 264, immediately south of U. S. Route 58, in the City of Norfolk, Virginia, to a point in the City of Virginia Beach, Virginia, east of Londonbridge and west of U. S. Route 60, having an eastbound roadway terminus at 21st Street and a westbound roadway terminus at 22nd Street in the City of Virginia Beach, and setting forth their estimates of the cost of constructing the project and of the amounts required for maintenance, repair and operation of the project and for reserves for such purposes; and**

**WHEREAS, Wilbur Smith and Associates, Consulting Engineers, of New Haven, Connecticut, have made investigations and studies and have prepared and filed with the Commission their traffic report dated July 31, 1965, describing the project and setting forth their estimates with respect to the traffic to use the project and the revenues to be received therefrom based on the tolls recommended by them; now, therefore,**

**BE IT RESOLVED by the State Highway Commission that the above mentioned reports of Howard, Needles, Tammen & Bergendoff and Wilbur Smith and Associates are hereby accepted and approved.  
Motion carried.**

A RESOLUTION AUTHORIZING THE ISSUANCE OF \$34,000,000 STATE OF VIRGINIA TOLL REVENUE BONDS (SERIES 1965) (NORFOLK-VIRGINIA BEACH TOLL ROAD) AND THE EXECUTION AND DELIVERY OF A TRUST INDENTURE SECURING SAID BONDS, AND PROVIDING FOR THE AUTHENTICATION AND DELIVERY OF SAID BONDS.

Moved by Mr. Holland, seconded by Mr. Chilton, that

BE IT RESOLVED by the State Highway Commission:

Section 1. The State Highway Commission of the State of Virginia (hereinafter sometimes called the "Commission") has found and determined and does hereby declare that:

(a) By virtue of Article 8, Chapter 3, Title 33, Code of Virginia, 1950, as amended (hereinafter sometimes called the "State Revenue Bond Act"), the Commission is authorized and empowered

(i) to acquire by purchase or by condemnation, construct, improve, operate and maintain any one or more of the projects mentioned in the State Revenue Bond Act, including, among others, a highway extending from a point in the vicinity of the intersection of Interstate Route 64 and U. S. Route 58 in the City of Norfolk, Virginia, to some feasible point between Londonbridge and U. S. Route 60 in the City of Virginia Beach, Virginia,

(ii) to issue revenue bonds of the State of Virginia to pay the cost of such projects, and

(iii) to fix and collect tolls and other charges for the use of such projects.

(b) The Consulting Engineers (as defined in the trust indenture hereinafter authorized, said trust indenture being hereinafter sometimes called the "Trust Indenture") have made investigations and studies and have prepared and filed with the Commission their engineering report dated October 25, 1965, describing a toll road, approximately 12.1 miles in length, extending from the interchange of Interstate Routes

64 and 264, immediately south of U. S. Route 58, in the City of Norfolk, Virginia, to a point in the City of Virginia Beach, Virginia, east of Londonbridge and west of U. S. Route 60, having an eastbound roadway terminus at 21st Street and a westbound roadway terminus at 22nd Street in the City of Virginia Beach (said toll road being hereinafter sometimes called the "Project"), and setting forth their estimates of the cost of constructing the Project and of the amounts required for maintenance, repair and operation of the Project and for reserves for such purposes.

(c) The Traffic Engineers (as defined in the "Trust Indenture") have made investigations and studies and have prepared and filed with the Commission their traffic report dated July 31, 1965, describing the Project and setting forth their estimates with respect to the traffic to use the Project and the revenues to be received therefrom based on the tolls recommended by them.

(d) The Commission has determined the location of the Project and has approved plans for the construction of the Project as recommended by the Consulting Engineers.

(e) The Commission has determined to proceed with the construction of the Project and has determined that the proceeds of the revenue bonds to be issued initially under the provisions of the Trust Indenture will be required and will be sufficient to pay the cost of the Project as such cost is defined in the State Revenue Bond Act.

(f) The Commission has determined to provide for the issuance from time to time of additional revenue bonds of the State on a parity with the bonds initially issued under the provisions of the Trust Indenture for the purpose of paying all or any part of the cost of any additions, improvements and enlargements to the Project, if and to the extent then permitted by law.

Section 2. For the purpose of paying the cost of the Project, the issuance of revenue bonds of the State of Virginia in the aggregate principal amount of Thirty-four Million Dollars (\$34,000,000) is hereby authorized. Said bonds shall be designated "State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road)", shall be issuable as coupon bonds in the denomination of \$5,000 each, and as registered bonds without coupons in denominations of \$5,000 or any multiple thereof, shall be dated as of the 1st day of July, 1965, shall bear interest at a rate not exceeding six per centum (6%) per annum as shall hereafter be determined by the Commission by resolution, and shall be stated to mature, subject to the right of prior redemption, on the 1st day of January, 2005, all as provided in the Trust Indenture.

Section 3. In order to secure the payment of the principal of and the interest on the bonds herein authorized, including any redemption premium thereon, and any additional bonds that may be issued under the provisions of the Trust Indenture, according to their tenor, purport and effect, and in order to secure the performance and observance of all the covenants, agreements and conditions in said bonds, the execution and delivery of a Trust Indenture by and between the Commission and Virginia National Bank, as Trustee, is hereby authorized and said Trust Indenture (herein called the "Trust Indenture") shall be substantially in the form hereinafter provided and shall be executed in the manner therein set forth.

Section 4. The bonds herein authorized shall be executed in the form and manner provided in the Trust Indenture and shall be deposited with the Trustee for authentication and delivery in accordance with the provisions of Section 208 of the Trust Indenture. The bonds shall be appropriately numbered.

Section 5. The State Highway Commissioner is hereby authorized to sign the bonds by signing his name "D. B. Fugate" and to cause the coupons to bear his facsimile signature. The Secretary of the Commission is hereby authorized to cause the official seal of the Commission to be affixed to the bonds and to be attested by the Secretary of the Commission by signing his name " " .

Section 6. The members, officers and employees of the Commission, the Consulting Engineers and the Traffic Engineers and the officers and agents of the Trustee are hereby authorized and directed to do all acts and things required of them by the provisions of the bonds and of the Trust Indenture, for the full, punctual and complete performance of all the terms, covenants, provisions and agreements of the bonds and of the Trust Indenture, and also to do all acts and things required of them by the provisions of this resolution.

Section 7. Virginia National Bank, in the City of Norfolk, Virginia, be and hereby is appointed to act as Trustee under the Trust Indenture, and said Trustee shall be entitled to such estates, powers, rights, authorities, benefits, privileges, immunities and exemptions as are set forth in the Trust Indenture executed and delivered under the provisions of this resolution.

Section 8. Virginia National Bank, in the City of Norfolk, Virginia, and Chemical Bank New York Trust Company, in the Borough

of Manhattan, City and State of New York, be and each hereby is appointed to act as a Paying Agent under the Trust Indenture.

Section 9. The Trust Indenture hereinabove authorized shall be substantially in the form presented to this meeting, subject to such minor changes, insertions and omissions as may be approved by the State Highway Commissioner and by said Trustee, and the execution of the Trust Indenture by the State Highway Commissioner and by said Trustee shall be conclusive evidence of any such approval.

Motion carried.

**A RESOLUTION AWARDING \$34,000,000  
STATE OF VIRGINIA TOLL REVENUE BONDS  
(SERIES 1965) (NORFOLK-VIRGINIA BEACH  
TOLL ROAD), FIXING THE INITIAL AMORTI-  
ZATION REQUIREMENTS FOR SAID BONDS,  
SPECIFYING THE INTEREST RATE OF SAID  
BONDS AND DIRECTING THE AUTHENTICATION  
AND DELIVERY OF SAID BONDS.**

Moved by Mr. Holland, seconded by Mr. Solater, that

WHEREAS, the State Highway Commission has received from J. C. Wheat & Co., Anderson & Strudwick, Smith, Barney & Co. Incorporated, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Allen & Company, F. W. Craigie & Co., Inc., Investment Corporation of Norfolk, Scott & Stringfellow and Stradar & Company, Inc., acting on behalf of themselves and other underwriters, a proposal for the purchase of Thirty-four Million Dollars (\$34,000,000) State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road), dated as of the 1st day of July, 1965, and authorized by the Commission by resolution adopted on October 27, 1965, said proposal being that presented at this meeting in the form of a Purchase Contract between the Commission and said purchasers; and

WHEREAS, said Purchase Contract provides that J. C. Wheat & Co., Anderson & Strudwick, Smith, Barney & Co. Incorporated, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Allen & Company, F. W. Craigie & Co., Inc., Investment Corporation of Norfolk, Scott & Stringfellow and Stradar & Company, Inc. are to be designated as the "principal underwriters" as defined in, and for all purposes of, the Trust Indenture referred to in said Purchase Contract; and

WHEREAS, the Commission has determined that it is for the best interests of the State of Virginia and the Commission to accept said proposal; now, therefore,

**BE IT RESOLVED** by the State Highway Commission:

Section 1. The proposal in the form of the Purchase Contract mentioned above is hereby accepted and the Thirty-four Million Dollars (\$34,000,000) State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road), bearing interest at the rate of Four per centum (4 %) per annum, are hereby awarded to J. C. Wheat & Co., Anderson & Strudwick, Smith, Barney & Co. Incorporated, Merrill Lynch, Pierce, Fenner & Smith Incorporated,



Allen & Company, F. W. Craigie & Co., Inc., Investment Corporation of Norfolk, Scott & Stringfellow and Strader & Company, Inc. and such other underwriters at the purchase price of \$ \_\_\_\_\_ and accrued interest from July 1, 1965 to the date of delivery of said bonds and upon the terms and conditions set forth in said Purchase Contract.

Section 2. The State Highway Commissioner is hereby authorized to execute and deliver the Purchase Contract for and on behalf of the Commission.

Section 3. The initial Amortization Requirements for said bonds shall begin in the fiscal year 1970, shall end with the fiscal year 2004 and shall be as follows:

<u>Fiscal Year</u>	<u>Amortization Requirement</u>	<u>Fiscal Year</u>	<u>Amortization Requirement</u>
1970	\$ 120,000	1988	\$ 965,000
1971	205,000	1989	1,005,000
1972	290,000	1990	1,045,000
1973	385,000	1991	1,085,000
1974	480,000	1992	1,130,000
1975	580,000	1993	1,175,000
1976	605,000	1994	1,220,000
1977	625,000	1995	1,270,000
1978	650,000	1996	1,320,000
1979	680,000	1997	1,375,000
1980	705,000	1998	1,430,000
1981	735,000	1999	1,485,000
1982	765,000	2000	1,545,000
1983	795,000	2001	1,605,000
1984	825,000	2002	1,670,000
1985	860,000	2003	1,740,000
1986	890,000	2004	1,810,000
1987	930,000		

Section 4. Said bonds, upon their execution in the form and manner set forth in the Trust Indenture referred to in said Purchase Contract, shall be deposited with the Trustee under said Trust Indenture for authentication, and said Trustee is hereby authorized and directed to authenticate and deliver said bonds to or upon the order of said principal underwriters upon the payment of said purchase price.

Section 5. The members, officers and employees of the Commission and the officers and agents of the Trustee under the Trust Indenture securing said bonds are hereby authorized and directed to do all acts and things necessary to carry into effect the provisions of this resolution.

Motion carried.

A RESOLUTION APPROVING THE FORM OF THE OFFICIAL STATEMENT AND AUTHORIZING THE STATE HIGHWAY COMMISSIONER TO SIGN IT ON BEHALF OF THE STATE HIGHWAY COMMISSION.

Moved by Mr. Holland, Seconded by Mr. Fitzpatrick, that

BE IT RESOLVED by the State Highway Commission that the Official Statement of the Commission, dated October 27, 1965, in connection with the issuance of \$34,000,000 State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road) is hereby approved in the form presented at this meeting, with such minor changes, insertions and omissions as may be approved by the State Highway Commissioner, his signing of said Official Statement to be conclusive evidence of his approval of such changes, insertions and omissions, and the principal underwriters and the other underwriters to whom said bonds have been awarded are hereby authorized to use, in connection with the offering and sale of said bonds, said Official Statement. Motion carried.

**A RESOLUTION PROVIDING FOR THE PRINTING  
OF THE LEGAL OPINION ON THE \$34,000,000  
STATE OF VIRGINIA TOLL REVENUE BONDS  
(SERIES 1965) (NORFOLK-VIRGINIA BEACH  
TOLL ROAD).**

**Moved by Mr. Holland, Seconded by Judge Weaver, that**

**BE IT RESOLVED** by the State Highway Commission that there shall be printed on the reverse of each of the \$34,000,000 State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road), dated July 1, 1965, the legal opinion of Mitchell, Pershing, Shetterly & Mitchell, respecting the validity of said bonds and, immediately following such legal opinion, a certificate executed with the facsimile signature of the State Highway Commissioner, said certificate to be in substantially the following form:

**I HEREBY CERTIFY** that the foregoing is a true and correct copy of the legal opinion on the bonds therein described which was manually signed by Mitchell, Pershing, Shatterly & Mitchell, New York, N.Y., and was dated as of the date of delivery of and payment for said bonds.

---

**State Highway Commissioner**

**Motion carried.**

The Commission then approved award of contracts to the low bidders for construction of the three projects comprising the Norfolk-Virginia Beach Toll Road as follows:

Moved by Mr. Holland, Seconded by Mr. Fitzpatrick, that on bid received September 13, 1965, the Commission award contract on the following project:

Route 44, Project 0044-122-101, C501, B601, B602, B603, B604, Contr. 1  
0044-034-101, C501, B601, B602, B603, B604, B605,  
B606, B630, B631, Contr. 1

3.317 Mi. 2-Lanes 24" x 9" Reinf. Con. Conc. Pave., Incid. & Brs.,  
 2.292 Mi. E. Int. 64 - 0.3 Mi. E. of old Va. Beach Blvd-Cities of  
 Norfolk and Virginia Beach - Award of contract to low bidder,  
 E. V. Williams Co., Inc., and Williams Paving Co., Inc., Norfolk, Va.  
 Bid \$5,386,867.28  
 10% for engineering and additional work 558,686.72  
 Railroad - \$8,000.00 Flagging - \$2,500.00  
 Amount chargeable to project - \$6,156,050.00  
 To be financed from sale of Norfolk-Virginia Beach Toll Revenue Bonds...  
 Motion carried.

Moved by Mr. Fitzpatrick, Seconded by Mr. Landrith, that on bid received September 13, 1965, the Commission award contract on the following project:

Route 44, Project 0044-134-101, C502, B607, B608, B609, B610, B611,  
B612, B613, B614, B615, B616, B632, Contr. 2

4.352 Mi. 2-Lanes 24" x 9" Reinf. Con. Conc. Pave., Incid. & Brs.,  
 0.3 Mi. E. Old Va. Beach Blvd. - Int. Great Neck Road, City of  
 Virginia Beach, Award of contract to low bidder - Ames & Webb,  
 Inc., Norfolk, Virginia and Higginson - Buchanan, Inc., Chesapeake,  
 Virginia.  
 Bid \$6,446,934.72  
 10% for engineering and additional work 644,692.47  
 Railroad - \$8,000.00 Flagging - \$2,500.00  
 Amount chargeable to project - \$7,102,100.00  
 To be financed from sale of Norfolk-Virginia Beach Toll Revenue Bonds.  
 Motion carried.

Moved by Mr. Chilton, Seconded by Judge Weaver, that on bid received September 13, 1965, the Commission award contract on the following project:

Route 44, Project 0044-134-101, C503, B617, B618, B619, B620, B621,  
B622, B623, B624, B625, B626, B627, B628, B629, B630,  
B634, B635, Contr. 3

3.675 Mi. 2-Lanes 24' x 9" Rainf. Can. Cons. Pava., Incid. & Brs.,  
Int. Great Neck Rd.-Int. Baltic Avenue - City of Virginia Beach,  
Award of contract to low bidder - Dickerson of N. C., Inc., Monroe,  
North Carolina.

Bid	\$7,529,541.45
10% for engineering and additional work	752,954.14
Amount chargeable to project -	\$8,282,500.00

To be financed from sale of Norfolk-Virginia Beach Toll Revenue Bonds.  
Motion carried.

Mr. Landrith expressed the Commission's commendation to the Underwriter, et al, for the excellent results obtained in this undertaking, an innovation in toll revenue financing without Wall Street management. Mr. Timby congratulated the Commission on making this possible through its cooperation in advance right of way acquisition and underwriting of maintenance expense.

Mr. Fugate thanked all who had a part in this transaction.

The meeting was adjourned at 5:25 P. M.

Approved:

Haydon B. Fugate  
Chairman

Attested:

W.M. Decatur  
Secretary

\$34,000,000

STATE OF VIRGINIA  
% Toll Revenue Bonds (Series 1965)  
(Norfolk-Virginia Beach Toll Road)

(Payable from tolls and other revenues as hereinafter set forth)

Dated July 1, 1965

Due January 1, 2005

Issuable as coupon bonds in the denomination of \$5,000 each, and as registered bonds without coupons in denominations of \$5,000 or any multiple thereof, and interchangeable as provided in the Trust Indenture. Semi-annual interest (January 1 and July 1) and principal of coupon bonds payable at Virginia National Bank, Norfolk, Virginia, or, at the option of the holder, at \_\_\_\_\_, New York, New York. Principal of registered bonds without coupons payable at the office of the Trustee.

Redeemable prior to maturity, upon 30 days' published notice, either in whole, on any date not earlier than January 1, 1976, from any moneys made available for such purpose, or, in part, by lot, on any interest payment date not earlier than January 1, 1971, by operation of the Sinking Fund, at the following prices and accrued interest to the date fixed for redemption:

Period	Redemption Prices	
	As a Whole	Sinking Fund
January 1, 1971 to December 31, 1975, inclusive	—	103%
January 1, 1976 to December 31, 1980, inclusive	104%	102
January 1, 1981 to December 31, 1985, inclusive	103	101
January 1, 1986 to December 31, 1990, inclusive	102	100½
January 1, 1991 to December 31, 1995, inclusive	101	100
January 1, 1996 to December 31, 2000, inclusive	100½	100
January 1, 2001 and thereafter prior to maturity	100	100

*Interest is exempt, in the opinion of Bond Counsel, from all present Federal income taxes.*

*The State Revenue Bond Act provides that the Bonds and the income thereof shall be exempt from all taxation within the State of Virginia.*

The Bonds are being issued for the purpose of paying the cost of a toll road extending from the interchange of Interstate Routes 64 and 264, immediately south of U. S. Route 58, in the City of Norfolk, Virginia, to a point in the City of Virginia Beach, Virginia, east of Londonbridge and west of U. S. Route 50, having an eastbound roadway terminus at 21st Street and a westbound roadway terminus at 22nd Street in the City of Virginia Beach. The Bonds are to be issued under a Trust Indenture, dated as of July 1, 1965, between the State Highway Commission of Virginia and Virginia National Bank, Norfolk, Virginia, as Trustee.

The Bonds are payable from tolls and other revenues of the Toll Road as provided in the Trust Indenture. The faith and credit of the State of Virginia are not pledged thereto, and the State is not, directly or indirectly or contingently, obligated to levy or to pledge any form of taxation whatever therefor or to make any appropriation for the payment of the principal of or the interest on the Bonds.

Price %  
(and accrued interest)

*The Bonds are offered for delivery when, as and if issued and received by us, and subject to approval of legality by Mitchell, Pershing, Shetterly & Mitchell, New York, N. Y. Bond Counsel. It is expected that the Bonds in definitive form will be available for delivery on or about December 9, 1965. Alex. Brown & Sons has acted as Financial Consultant to the Commission.*

CONCURRENTLY WITH THE SALE OF THE BONDS, THE COMMISSION WILL MAKE AVAILABLE ITS OFFICIAL STATEMENT WITH RESPECT TO THE BONDS. THE WITHIN OFFICIAL STATEMENT IS IN PRELIMINARY FORM AND IS SUBJECT TO COMPLETION AND AMENDMENT IN ALL RESPECTS WITHOUT NOTICE.

This Official Statement does not constitute an offer to sell bonds in any State to any person to whom it is unlawful to make such offer in such State. No dealer, salesman or any other person has been authorized to give any information or to make any representations, other than those contained herein in connection with the offering of the Bonds, and if given or made, such information or representations must not be relied upon.

TABLE OF CONTENTS	Page
The Commission and its Powers .....	3
Membership .....	3
Powers .....	3
Vicinity Map .....	4
Maintenance of the Toll Road by the State .....	5
Enabling Legislation .....	5
Supreme Court of Appeals Opinion .....	5
Commission Resolution .....	5
The Norfolk-Virginia Beach Toll Road .....	6
Location Map .....	7
Description of Norfolk-Portsmouth Metropolitan Area .....	8
Description of Virginia Beach .....	9
The Need for the Project .....	9
Additional Highway Improvements .....	10
Security for the Bonds .....	11
Application of Bond Proceeds .....	12
Estimated Net Revenues and Debt Service Coverage .....	12
Engineering and Traffic Reports .....	14
Engineering Report of Howard, Needles, Tammen & Bergendoff, Consulting Engineers .....	15
Location .....	15
Planning and Design .....	15
Construction Contracts .....	16
Construction Schedule .....	16
Design Features .....	16
Foundation Conditions .....	17
Right of Way .....	17
Permits and Authorizations .....	18
Toll Collection .....	18
Cost Estimate .....	19
Operation and Maintenance .....	19
Conclusion .....	21
Summary of Certain Provisions of the Trust Indenture .....	22
Toll Covenants .....	22
Collection and Disposition of Revenues .....	23
Custody and Application of Bond Proceeds .....	25
Additional Bonds .....	26
Insurance .....	26
Reports and Audits .....	27
Investments .....	28
Consulting and Traffic Engineers .....	28
Modification of Trust Indenture .....	28
Remedies of Bondholders .....	28
Tax Exemption .....	29
Legality for Investment .....	29
Legal Matters Subject to Approval of Counsel .....	29
Miscellaneous .....	29
Appendix A—Traffic Report of Wilbur Smith and Associates, Traffic Engineers..	A-1
Chapter 1—Introduction .....	A-3
Chapter 2—Area Growths .....	A-6
Chapter 3—Traffic Studies .....	A-13
Chapter 4—Estimated Usage and Revenues .....	A-29

# COMMONWEALTH OF VIRGINIA



DEPARTMENT OF HIGHWAYS  
RICHMOND, VIRGINIA 23219

DOUGLAS B. FUGATE, Commissioner  
G. L. BAUGHAN, Luray, Va.  
W. RAMSDELL CHILTON, Lancaster, Va.  
EARL A. FITZPATRICK, Roanoke, Va.  
R. S. HOLLAND, Virginia Beach, Va.  
GEORGE C. LANDRITH, Alexandria, Va.  
LAWRENCE H. McWANE, Lynchburg, Va.  
W. M. SCLATER, JR., Marion, Va.  
ROBERT S. WEAVER, JR., Victoria, Va.

JOHN E. HAYWOOD,  
Deputy Commissioner & Chief Engineer  
A. B. EVRE, Director of Administration  
A. K. NUNBERGER, Director of Engineering  
J. V. CLARKE, Director of Operations  
W. S. S. BRITTON,  
Director of Programming and Planning

## OFFICIAL STATEMENT

*of the*

# State Highway Commission of Virginia

*relating to*

**\$34,000,000**

## State of Virginia Toll Revenue Bonds (Series 1965)

(Norfolk-Virginia Beach Toll Road)

The purpose of this Official Statement, which includes the cover page, the maps and the appendix, is to furnish for all who may become holders of the below mentioned bonds information relating to the State Highway Commission of the State of Virginia (herein called the "Commission"), the Norfolk-Virginia Beach Toll Road (herein called the "Toll Road") and the proposed issue of \$34,000,000 State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road) (herein called the "Bonds"), to be dated July 1, 1965.

### THE COMMISSION AND ITS POWERS

The State Highway Commission is vested with the powers, among others, to locate and establish the routes to be followed by the roads comprising the State highway system, to let all contracts for the construction, improvement and maintenance of such roads and to make rules and regulations regarding the use of the State highway system.

#### Membership

The Commission consists of nine members appointed by the Governor, subject to approval of the General Assembly, for terms of four years each.

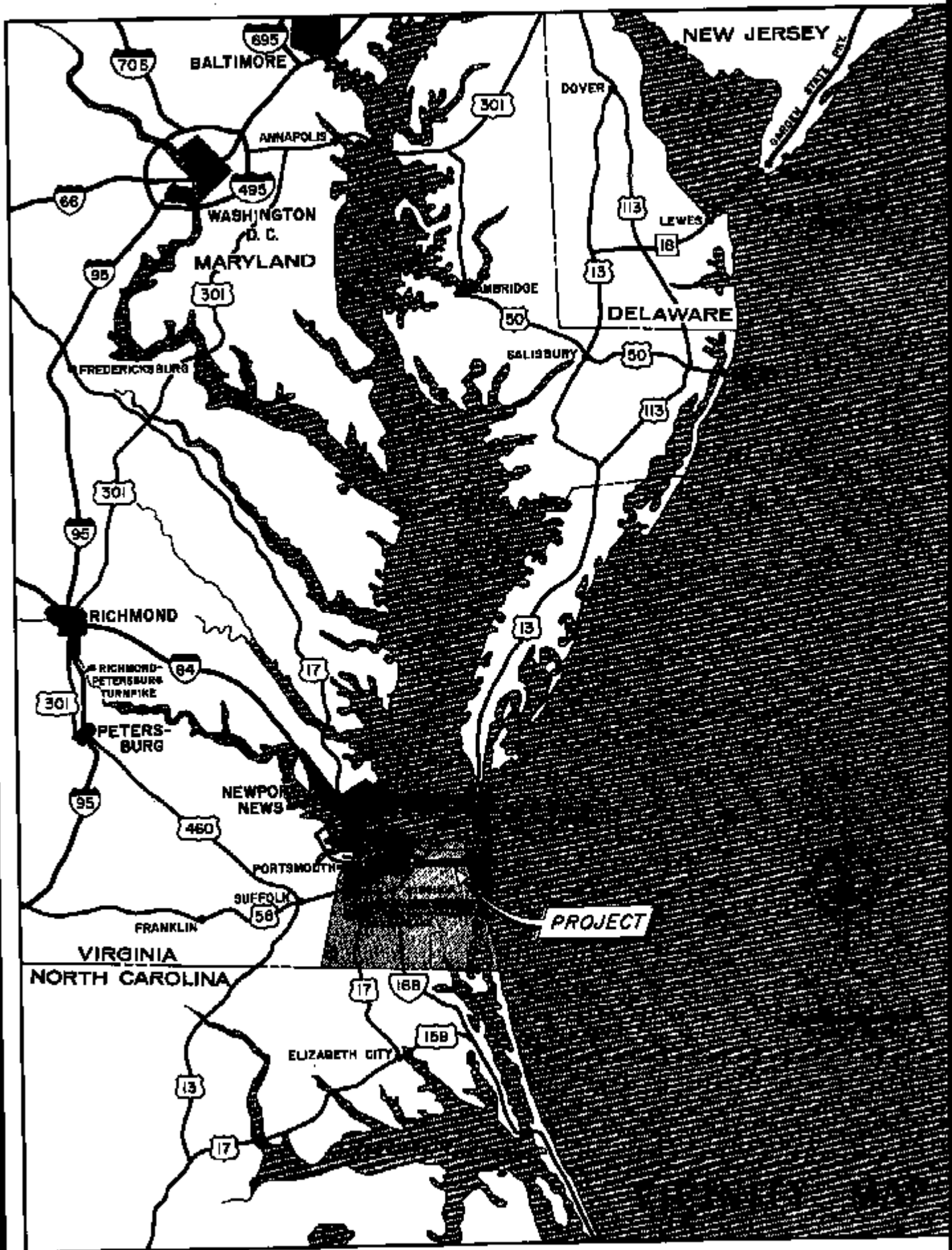
The present members of the Commission and the dates of expiration of their terms of office are:

DOUGLAS B. FUGATE, Richmond, Commissioner and Chairman . . . . .	Term expires June 30, 1966
G. L. BAUGHAN, Luray . . . . .	Term expires June 30, 1968
W. RAMSDELL CHILTON, Lancaster . . . . .	Term expires June 30, 1966
EARL A. FITZPATRICK, Roanoke . . . . .	Term expires June 30, 1969
R. S. HOLLAND, Virginia Beach . . . . .	Term expires June 30, 1969
GEORGE C. LANDRITH, Alexandria . . . . .	Term expires June 30, 1966
LAWRENCE H. McWANE, Lynchburg . . . . .	Term expires June 30, 1967
W. M. SCLATER, JR., Marion . . . . .	Term expires June 30, 1968
ROBERT S. WEAVER, JR., Victoria . . . . .	Term expires June 30, 1967

#### Powers

By virtue of Article 8, Chapter 3, Title 33, Code of Virginia, 1950, as amended (herein called the "State Revenue Bond Act"), the Commission is authorized and empowered:





(a) to acquire by purchase or by condemnation, construct, improve, operate and maintain any one or more of the projects mentioned in the State Revenue Bond Act, including the Norfolk-Virginia Beach Toll Road, extending from a point in the vicinity of the intersection of Interstate Route 64 and U. S. Route 58 in the City of Norfolk to some feasible point between Londonbridge and U. S. Route 60 in the City of Virginia Beach,

(b) to issue revenue bonds of the State, to be known and designated as "State of Virginia Toll Revenue Bonds", to pay the cost of such projects, and

(c) to fix and collect tolls and other charges for the use of such projects.

Under the State Revenue Bond Act, the Commission currently operates a bridge and tunnel complex consisting of the Hampton Roads Tunnel (Norfolk-Hampton), a bridge over the James River, the George P. Coleman Bridge over the York River and the Robert O. Norris Bridge over the Rappahannock River, all in the vicinity of the Toll Road. The tolls and other revenues of these facilities are pledged to the payment of the State of Virginia Toll Revenue Bonds (Series 1954) originally issued in the principal amount of \$95,000,000. As of September 30, 1965, the outstanding balance of this issue was \$75,487,000. By reason of its operation of these projects, the Commission has a well qualified organization, experienced in the operation of toll facilities, which will be responsible for administration of the Toll Road.

### **MAINTENANCE OF THE TOLL ROAD BY THE STATE**

#### **Enabling Legislation**

The State Revenue Bond Act provides in §33-248 as follows:

"The Commission may, in its discretion, use any part of funds available for the construction of State highways, in any construction district in which any project is wholly or partly located, to aid in the payment of the cost of such projects and for the payment, purchase or redemption of revenue bonds issued in connection with any such project, or in connection with any such project and any one or more other projects. The Commission may also, in its discretion, use any part of funds available for the maintenance of State highways, in any construction district in which any project is wholly or partly located, to provide for the operation, maintenance and repair of any such project and for the payment of interest on revenue bonds issued in connection with any such project, or in connection with any such project and any one or more other projects."

#### **Supreme Court of Appeals Opinion**

The Supreme Court of Appeals of Virginia in 1949 in *Almond v. Gilmer* (51 S.E. 2d 272) stated with respect to the statutory provision above quoted:

"It contemplates that the Commission may allocate funds for the maintenance, repair and operation not otherwise allocated or the State legislature, in its discretion, may make an appropriation for that purpose, yet unless and until other funds be so voluntarily made available, the receipts are charged with the cost of maintenance, repair and operation, and the right of the holders of the bonds to be paid interest and principal is therefore subordinate thereto and the State is not even indirectly or contingently obligated to make appropriation for their payment.

"It is true that the Commission and the State of Virginia may stand by as benevolent protectors of this enterprise of their creation. The one may allocate any funds not otherwise allocated or prohibited, to aid in its acquisition, maintenance and operation, and the other may make such appropriations toward those ends as it may desire. Yet neither is required to assume such philanthropic role."

#### **Commission Resolution**

At its meeting on August 19, 1965, the Commission, pursuant to the above legislation and opinion, adopted the following resolution expressing its desire to assist in the financing of the Norfolk-Virginia Beach Toll Road and its intention to make annual allocations to cover the maintenance of the Toll Road when it is opened to traffic:

"WHEREAS, by virtue of Chapter 399 of the Acts of Assembly 1940, known and cited as the

'State Revenue Bond Act' and now codified as Article 8 of Chapter 3 of Title 33 of the Code of Virginia (1950), as amended, the State Highway Commission is authorized to construct certain projects as toll revenue projects; and

"WHEREAS, by resolution adopted February 21, 1963, this Commission authorized the Highway Department to proceed with the construction of the Norfolk-Virginia Beach Highway; and

"WHEREAS, the Highway Department is now ready to proceed with the advertisement for bids for the construction of this project and the sale of the necessary bonds; and

"WHEREAS, it is the desire of this Commission to assist in the financing of the project by assuming the maintenance cost from highway funds.

"NOW, THEREFORE, BE IT RESOLVED: That the State Highway Commission hereby expresses its intent to make annual allocations from highway funds for the maintenance of the Norfolk-Virginia Beach Highway pursuant to §33-248 of the Code of Virginia (1950), as amended, after the completion of the project."

It is the intention of the Commission to pay for the maintenance of the Toll Road from State highway funds as it would if the project were operated free of tolls. This maintenance includes such items as ordinary maintenance, policing and certain administrative expenses. Reference is made to the Engineering Report of Howard, Needles, Tammen & Bergendoff, Consulting Engineers, included herein, as to their estimate of the amount of such expenses.

While the Commission under the present legislation may pay for the maintenance of the Toll Road from State highway funds, it can not contract or obligate itself to do so.

#### THE NORFOLK-VIRGINIA BEACH TOLL ROAD

The Toll Road will be a 12.1 mile completely modern limited access transportation facility designed according to Interstate System standards with a design speed of 70 mph. It is designed to carry heavy and dense traffic. The basic roadway to be constructed initially in each direction will consist of two 12-foot lanes with fully paved shoulders. Provision has been made for the addition of one additional 12-foot lane on the left hand side of each of the two roadways.

The Toll Road's western terminus is at a point in the City of Norfolk at the Interstate Route 64-264 Interchange. It follows a route easterly through a rapidly growing commercial and residential section of Virginia Beach roughly paralleling U. S. Route 58 to its eastern terminus in downtown Virginia Beach. The route of the Toll Road is shown on the Location Map.

The project will directly connect with but will not be a part of the National System of Interstate and Defense Highways. Interstate Route 64 at the western terminus of the project is a limited access high speed facility serving Richmond, Williamsburg and Norfolk. It is a direct connection to Interstate Route 95, the principal north-south route on the Atlantic seaboard. Interstate Route 264 connects directly with the western end of the Toll Road and traverses both Norfolk and Portsmouth. These Interstate routes are shown on the Vicinity Map.

The Commission has engaged Howard, Needles, Tammen & Bergendoff as its Consulting Engineers to design and supervise the construction of the Toll Road and to prepare an estimate of construction costs.

Following is the estimated cost of the Toll Road contained in the Engineering Report:

General Construction .....	\$19,563,333
Signing and Pavement Striping .....	260,000
Toll Facilities, Communication and Service Buildings .....	500,000
Utility Adjustments .....	485,000
Total Construction Cost .....	<u>\$20,808,333</u>
Engineering, Legal and Administration .....	2,200,000
Right of Way .....	5,350,000
Contingencies .....	1,441,667
Total Estimated Project Cost .....	<u>\$29,800,000</u>



Firm bids have been received by the Commission for all major items of construction along the full length of the Toll Road. These bids total \$19,563,333 and represent 94% of total construction cost.

The right of way for the Toll Road is estimated to cost \$5,350,000. As of September 17, 1965 acquisition had been accomplished and options to purchase acquired for property parcels representing \$4,243,000 or approximately 79% of the total estimated right of way cost.

The construction schedule has been set to conform with the scheduled completion of the principal connecting interstate highways at the western terminus of the Toll Road. Opening of the Toll Road to traffic is scheduled for December 1, 1967, with the entire project scheduled for completion on June 1, 1968.

A description of the Toll Road to be constructed with the proceeds of the Bonds is contained herein in the Engineering Report.

### DESCRIPTION OF NORFOLK-PORTSMOUTH METROPOLITAN AREA

The Norfolk-Portsmouth metropolitan area is made up of the four contiguous cities of Norfolk, Portsmouth, Chesapeake and Virginia Beach. These last two cities were formed on January 1, 1963 from Norfolk and Princess Anne counties and the old cities of South Norfolk and Virginia Beach.

The total area of the four cities includes approximately 766 square miles. Of this approximately 100 square miles is inland water.

Forming the southern rim of Hampton Roads and Chesapeake Bay, the Norfolk-Portsmouth area houses the greatest concentration of naval installations in the world. A United States Navy shipbuilding yard is located at Portsmouth and the largest United States Naval Base is located at Norfolk. The United States Naval Air Station at Norfolk was commissioned in 1918 and is presently one of the major naval aviation stations in the world.

Hampton Roads has long been recognized as one of the world's finest natural harbors. The Port of Hampton Roads is comprised of the cities of Norfolk, Portsmouth, Chesapeake, Hampton and Newport News. It leads all other eastern seaboard ports in the export of coal and grain, Tobacco, lumber, fuel oil, gypsum, manganese and many other items form the exports and imports which are shipped on ocean, coastwise and intercoastal vessels through this harbor.

Regularly scheduled sailings link Hampton Roads with all important world centers—300 ports in 95 foreign countries. While Hampton Roads ranks fourth among the Atlantic ports as a gateway of commerce, the City of Norfolk ranks first among all United States ports in tonnage exported.

The Norfolk-Portsmouth metropolitan area is one of the State's leading industrial centers with more than 330 manufacturing establishments in the area. Industry is widely varied. Some of its major industrial activities include shipbuilding, automobile assembly, railroad repair, seafood and meat packing, chemicals, fertilizers, oil refining operations and electronics. Among the larger employers in the area are The Norfolk Shipbuilding and Dry Dock Corporation, Ford Motor Co., Norfolk & Western Railway Company, Armour & Co., the Smith-Douglas Division of Borden Co., and The Gulf Oil Corporation. The Newport News Shipbuilding & Dry Dock Company, one of the largest shipbuilding corporations in the nation, is located in nearby Newport News.

Norfolk's position as a hub of a transportation system, served by regularly scheduled sailings, eight railroads and three airlines, makes it a distribution center of increasing importance.

Although more people are employed in manufacturing, trade and other works, agriculture is a significant industry, especially in Chesapeake.

The Norfolk-Portsmouth area is the State's top ranking metropolitan area from the standpoint of population, income and retail sales. This area ranks 44th in population among the nation's 212 metropolitan areas.

### POPULATION TRENDS

Year	Norfolk	Virginia Beach(1)	Portsmouth	Chesapeake(2)	Total
1940 .....	144,332	22,584	50,745	43,866	261,527
1950 .....	213,513	47,667	80,039	110,371	451,590
1960 .....	304,869	84,215	114,773	73,647*	577,504
1964 estimated .....	315,032	116,746	119,203	85,704	636,685

(1) Merged with Princess Anne County, January 1, 1963.

(2) Created from Norfolk County and the City of South Norfolk on January 1, 1963.

\* Population loss due to annexation of part of Norfolk County to the existing Cities of Norfolk and Portsmouth.

### DESCRIPTION OF VIRGINIA BEACH

With the merger of the resort City of Virginia Beach and Princess Anne County in January, 1963, the new City now ranks seventh in size in the nation areawise. Extending from the North Carolina line on the south, north to Cape Henry and west to the Norfolk and Chesapeake city limits, the City covers 312 square miles. Behind its 38 mile sand beach shoreline are 60,000 acres of rich farmland, four permanent military installations, nine major shopping centers and 57 square miles of lake and bay water.

Numerous housing developments have been constructed in recent years along the route of the Toll Road, while in the eastern sections of the City the excellent inland waterways and attractive seashore areas have contributed to the growth of several exclusive residential developments, as well as an expanding number of apartment complexes. The result of this construction is readily apparent in the population statistics of the City.

Many Virginia Beach residents are employed in Norfolk and Portsmouth and commute daily to those cities. It is estimated that 35 per cent of Virginia Beach's 120,000 population is employed by the Federal government in permanent military installations or through Civil Service.

While in the past agriculture has played an important part in the economic development of Virginia Beach, the City is rapidly becoming a major distribution center and is attracting extensive commercial development. The Chesapeake Bay Bridge-Tunnel, with its southern terminus in Virginia Beach, offers additional prospects for obtaining new industry.

With its renowned beaches and inland waterways, the City for many years has attracted large numbers of tourists, not only from the local communities, but also from other parts of Virginia, the Carolinas and other states. In downtown Virginia Beach there are more than 3,300 rooms available in hotels, motels and rooming houses and more than 90 dining facilities. On peak days during the tourist season, an estimated 80,000 tourists visit downtown Virginia Beach, an area of approximately two square miles located on the Atlantic Ocean. Within recent years millions of dollars have been invested in the construction of hotel, restaurant and other seashore facilities in order to keep pace with the increasing demand for these services.

Within the City limits in excess of 10,000 acres of land are owned by the Federal government, or approximately 10 per cent of the City area. Military installations include the United States Naval Amphibious Base at Little Creek; the Oceana Naval Air Station; Fort Story; Dam Neck Missile Base; and Camp Pendleton.

The City is served by the Norfolk and Southern Railway which connects seven other major railroads in the metropolitan area. In addition 46 trucking lines are available in the area handling intra and interstate shipments to all points.

### THE NEED FOR THE PROJECT

The Virginia Beach, Norfolk, Portsmouth and Chesapeake metropolitan area comprises one of the most dynamic urban sections in the nation. With an area population in excess of 600,000, travel is

heavily automobile oriented. Motor vehicle registrations in southeastern Virginia have increased an average of 3.9% annually between 1954 and 1959 and approximately 7.2% between 1959 and 1964.

Virginia Beach, to the east of Norfolk, serves as a primary recreational area for Tidewater Virginia and is one of the most popular tourist resorts along the entire east coast. In addition, it is becoming increasingly important as a residential area with large numbers of its residents commuting daily to Norfolk and Portsmouth.

The Norfolk-Virginia Beach Toll Road in combination with Interstate Route 264 will provide a direct high-speed, limited access route between Norfolk and downtown Virginia Beach. The proposed facility will substantially reduce the driving time between the Norfolk central business district and downtown Virginia Beach and the element of safety will be greatly enhanced by this controlled access highway. Reference is made to the Traffic Report of Wilbur Smith and Associates, Traffic Engineers, included herein as Appendix A for a detailed discussion of these features.

At the present time, U. S. Route 58 serves as the primary through highway between Norfolk and downtown Virginia Beach. Extensive residential and commercial development has occurred along this facility in recent years, which, combined with daily commuter traffic and heavy recreational usage during summer months, causes congestion on the facility during these periods of peak traffic. The safety record of U. S. Route 58 during the past few years has been a source of concern among highway officials and motorists. During 1964, on U. S. Route 58 in Virginia Beach there were 782 accidents resulting in 150 personal injuries and 3 fatalities.

There are 12 traffic signals on the 12.5 mile section of U. S. Route 58 and Business 58. This section parallels the route of the Toll Road. In addition a recent field survey shows a total of 308 commercial establishments on this section of which 138 businesses have direct access to the main road and 170 have access to a parallel service road. Also the number of private entrances is approximately equal to that of the commercial entrances on this section.

The Commission has no further plans for the improvement of U. S. Route 58 between downtown Norfolk and downtown Virginia Beach. It is not proposed to develop this road to expressway standards and, in fact, because of the narrow width of right of way and the extensive development thereon, it would be practically impossible to do so. Furthermore, there is no plan to connect U. S. Route 58 and Interstate Route 64 by means of an interchange.

In summary U. S. Route 58 has lost its value as a through artery and has taken on the characteristics of a local "main street" which results in accidents, fatalities and the loss of time and money to users of the highway.

#### **ADDITIONAL HIGHWAY IMPROVEMENTS**

The most important highway improvements in the area relating to the Toll Road are the construction of:

(a) Interstate Route 64 from the Hampton Roads Tunnel, through Norfolk and connecting with the western terminus of the Toll Road and Interstate Route 264, through Virginia Beach and to Chesapeake,

(b) Interstate Route 264 from downtown Norfolk to the Norfolk-Virginia Beach city line and connecting with the western terminus of the Toll Road and Interstate Route 64,

(c) Interstate Route 264 from downtown Portsmouth to a point near the Portsmouth-Chesapeake city line and connecting with Interstate Route 64, and

(d) Independence Boulevard from a point on U. S. Route 13 in Virginia Beach near the Chesapeake Bay Bridge-Tunnel terminus to Princess Anne in Virginia Beach and intersecting the Toll Road with a full interchange.

Also of importance in the area is the construction of Interstate Route 464 to the south and southeast from downtown Norfolk to a point on Interstate Route 64.

The above routes are shown on the Location Map.

Interstate Route 264, from the westerly terminus of the Toll Road to Brambleton Avenue, near downtown Norfolk, will be completed by December, 1967. The four contracts encompassing this work were at the following stages of completion on August 20, 1965.

Contract	Amount	Contractor's Schedule Completion	Actual Completion	Work to be Completed by
1.	\$5,962,092	3.8%	6%	7/1/67
2.	3,200,476	16.0	41	10/1/66
3.*	4,942,679	—	—	10/1/67
4.†	4,658,089	—	—	10/1/67

\* Contract signed and work started on August 25, 1965.

† Contract signed September 3, 1965 and work started on September 7, 1965.

Interstate Route 64, from the Interstate Route 64-264 interchange, northerly to Sewalls Point Road (State Route 170) will be completed by December, 1967. The three contracts encompassing this work were at the following stages of completion on August 20, 1965.

Contract	Amount	Contractor's Schedule Completion	Actual Completion	Work to be Completed by
1.*	\$5,962,092	3.8%	6%	7/1/67
2.	3,092,189	59.0	62	11/1/66
2a	1,157,975	73.3	60†	1/1/66
3.	4,500,872	79.0	55†	7/1/66

\* Same as Contract 1 mentioned above concerning Interstate Route 264.

† The delay has been due to the surcharge of some of the fills having to remain longer than anticipated. These contracts are expected to be completed as scheduled.

Interstate Route 64 from State Route 170 to the Hampton Roads Tunnel is scheduled for completion by 1970.

Independence Boulevard, from U. S. Route 13 near the terminus of the Chesapeake Bay Bridge-Tunnel facility to the interchange with the Toll Road, should be completed by the end of 1967 or shortly thereafter. Bids were received October 6, 1965 for the section between Virginia Beach Boulevard (U. S. Route 58) and Witch Duck Road (State Route 647). This work is scheduled for completion on October 1, 1966. The section from State Route 647 to U. S. Route 13, will be advertised in late 1966, with completion scheduled in the fall of 1967 or spring of 1968. (The Traffic Engineers have assumed that Independence Boulevard from the interchange with the Toll Road to U. S. Route 13 will be completed by December, 1967).

No other expressways or toll roads in the traffic corridor between downtown Norfolk and downtown Virginia Beach are planned or proposed in the long range expressway and arterial transportation plan for this area.

### SECURITY FOR THE BONDS

The Bonds are to be issued under and secured by a Trust Indenture, to be dated as of July 1, 1965 (herein called the "Trust Indenture"), between the Commission and Virginia National Bank, Norfolk, Virginia, as Trustee.

The Trust Indenture provides for the fixing, revising, charging and collecting by the Commission of tolls for the use of the Toll Road and for the deposit in a special fund designated "State of Virginia Toll Revenue Bonds (Series 1965) Interest and Sinking Fund" (herein called the "Sinking Fund") of an amount, over and above the cost of maintenance, repair and operation and reserves for such purposes, sufficient to pay the Amortisation Requirements for and the interest on the Bonds. The Sinking Fund is pledged to and charged with the payment of the principal of and the interest on all bonds issued under the Trust Indenture.



The tolls and other revenues to be received from the Toll Road are pledged as security for the Bonds. The faith and credit of the State are not pledged to the payment of the principal of or the interest on the Bonds. The Trust Indenture does not convey title to or mortgage the Toll Road or any part thereof.

#### APPLICATION OF BOND PROCEEDS

The \$34,000,000 principal amount of Bonds, plus the estimated earnings from investment of moneys in the Construction Fund, cover the following:

Cost of Project, including financing expenses (as estimated by Howard, Needles, Tammen & Bergendoff, the Consulting Engineers, and set forth in their Engineering Report contained herein) .....	\$29,800,000
Capitalized interest on the Bonds from December 9, 1965 to January 1, 1969 .....	
Bond Discount .....	
Additional Reserve For Contingencies .....	_____
	\$
Less: Estimated Earnings from investment of moneys in the Construction Fund .....	_____
Principal amount of Bonds .....	\$34,000,000

#### ESTIMATED NET REVENUES AND DEBT SERVICE COVERAGE

The accompanying table has been compiled to show the coverage provided by the estimated net revenues in each fiscal year of interest on the Bonds and of the Principal and Interest Requirements of the Bonds.

The gross revenues have been estimated by the Traffic Engineers. The operation and maintenance expenses, as estimated by the Consulting Engineers, are shown in two columns, the first column reflecting the payment of maintenance expenses by the Commission from State highway funds, in accordance with their resolution discussed above, in which case the Consulting Engineers have recommended that no deposits be made to the credit of the Reserve Maintenance Fund. The second column shows operation and maintenance expenses, including deposits to the credit of the Reserve Maintenance Fund as recommended by the Consulting Engineers, if maintenance expenses are not paid from State highway funds. Such estimates are intended to indicate trends and approximate amounts reasonably anticipated to be received or expended over the years and do not purport to represent exact amounts for any one year.

The table has been prepared on the assumption that the Bonds will be retired at the close of each fiscal year in the principal amount equal to the Amortization Requirement for such fiscal year. If at the close of any fiscal year the total principal amount of the Bonds retired or called for redemption prior to the close of such fiscal year shall be in excess of, or shall be less than, the total amount of the Amortization Requirements for the Bonds to and including such fiscal year, then the total amount of the Amortization Requirements for the Bonds for all subsequent fiscal years shall be proportionately reduced by the amount of such excess or increased by the amount of such deficiency. In calculating Principal and Interest Requirements no allowance has been made for premiums payable on redemption of Bonds or premiums paid or discounts received in connection with the purchase of Bonds. These calculations also assume that no additional bonds are issued under the Trust Indenture.

The table does not purport to indicate the time or manner in which the net revenues will or are to be applied to the retirement of Bonds. The time and manner of such application is provided in the Trust Indenture. Reference is made to the caption "Summary of Certain Provisions of the Trust Indenture" herein.

**ESTIMATED NET REVENUES AND DEBT SERVICE COVERAGE  
NORFOLK-VIRGINIA BEACH TOLL ROAD**

Year	Operation and Maintenance Expenses <sup>(1)</sup>				Net Revenues <sup>(2)</sup>		Taxes Covered		Taxes Covered	
	Gross Revenues <sup>(3)</sup>	With State Maintenance	Without State Maintenance	With State Maintenance	Without State Maintenance	Without State Maintenance	With State Maintenance	Without State Maintenance	With State Maintenance	Without State Maintenance
1966	—	—	—	—	—	—	—	—	—	—
1967	—	—	—	—	—	—	—	—	—	—
1968 <sup>(4)</sup>	\$1,957,000	\$172,000	\$319,000	\$1,695,000	\$1,548,000	\$1,360,000	1.40	1.28	1.40	1.28
1969	2,079,000	175,000	335,000	1,904,000	1,744,000	1,560,000	1.49	1.36	1.37	1.24
1970	2,203,000	190,000	350,000	2,023,000	1,853,000	1,660,000	1.58	1.44	1.37	1.25
1971	2,335,000	200,000	365,000	2,135,000	1,959,000	1,740,000	1.66	1.52	1.37	1.25
1972	2,452,000	210,000	405,000	2,242,000	2,047,000	1,815,000	1.77	1.61	1.37	1.25
1973	2,575,000	210,000	425,000	2,365,000	2,150,000	1,885,000	1.86	1.71	1.38	1.25
1974	2,703,000	220,000	450,000	2,483,000	2,253,000	1,960,000	1.94	1.78	1.39	1.27
1975	2,839,000	220,000	450,000	2,619,000	2,389,000	2,040,000	2.01	1.84	1.46	1.34
1976	2,980,000	230,000	450,000	2,750,000	2,530,000	2,127,000	2.15	1.96	1.46	1.34
1977	3,099,000	230,000	450,000	2,869,000	2,649,000	2,215,000	2.29	2.11	1.53	1.41
1978	3,223,000	240,000	500,000	2,983,000	2,763,000	2,298,000	2.43	2.23	1.59	1.45
1979	3,352,000	240,000	510,000	3,112,000	2,842,000	2,382,000	2.59	2.36	1.65	1.51
1980	3,485,000	250,000	530,000	3,235,000	2,965,000	2,466,000	2.75	2.52	1.72	1.58
1981	3,625,000	260,000	530,000	3,375,000	3,095,000	2,550,000	2.94	2.70	1.79	1.65
1982	3,770,000	260,000	600,000	3,510,000	3,170,000	2,635,000	3.14	2.84	1.86	1.68
1983	3,920,000	260,000	600,000	3,660,000	3,250,000	2,720,000	3.23	2.92	1.87	1.68
1984	4,070,000	260,000	600,000	3,810,000	3,330,000	2,805,000	3.35	3.00	1.87	1.69
1985	4,220,000	260,000	600,000	3,960,000	3,410,000	2,890,000	3.43	3.10	1.86	1.68
1986	4,370,000	260,000	600,000	4,110,000	3,490,000	2,975,000	3.55	3.21	1.87	1.69
1987	4,520,000	260,000	600,000	4,260,000	3,570,000	3,060,000	3.69	3.33	1.86	1.68
1988	4,670,000	260,000	600,000	4,410,000	3,650,000	3,145,000	3.84	3.46	1.87	1.69
1989	4,820,000	260,000	600,000	4,560,000	3,730,000	3,230,000	4.01	3.62	1.87	1.68
1990	4,970,000	260,000	600,000	4,710,000	3,810,000	3,315,000	4.20	3.79	1.87	1.69
1991	5,120,000	260,000	600,000	4,860,000	3,890,000	3,400,000	4.42	3.99	1.87	1.69
1992	5,270,000	260,000	600,000	5,010,000	3,970,000	3,485,000	4.67	4.22	1.87	1.69
1993	5,420,000	260,000	600,000	5,160,000	4,050,000	3,570,000	4.97	4.49	1.87	1.69
1994	5,570,000	260,000	600,000	5,310,000	4,130,000	3,655,000	5.33	4.81	1.87	1.69
1995	5,720,000	260,000	600,000	5,460,000	4,210,000	3,740,000	5.75	5.20	1.87	1.69
1996	5,870,000	260,000	600,000	5,610,000	4,290,000	3,825,000	6.28	5.67	1.87	1.69
1997	6,020,000	260,000	600,000	5,760,000	4,370,000	3,910,000	6.93	6.26	1.87	1.68
1998	6,170,000	260,000	600,000	5,910,000	4,450,000	3,995,000	7.78	7.03	1.87	1.68
1999	6,320,000	260,000	600,000	6,060,000	4,530,000	4,080,000	8.90	8.04	1.87	1.69
2000	6,470,000	260,000	600,000	6,210,000	4,610,000	4,165,000	10.48	9.47	1.87	1.69
2001	6,620,000	260,000	600,000	6,360,000	4,690,000	4,250,000	12.86	11.61	1.87	1.69
2002	6,770,000	260,000	600,000	6,510,000	4,770,000	4,335,000	16.81	15.19	1.87	1.69
2003	6,920,000	260,000	600,000	6,660,000	4,850,000	4,420,000	22.32	20.32	1.87	1.68
2004	7,070,000	260,000	600,000	6,810,000	4,930,000	4,505,000	48.98	43.79	1.86	1.68

(1) Gross Revenues as estimated by Withler Smith and Associates, the Traffic Engineers, and Operation and Maintenance Expenses, including deposits to the Reserve Maintenance Fund in this event maintenance expenses are not paid from State highway funds, as estimated by Howard, Needles, Tammen & Bergendoff, the Consulting Engineers. Does not include estimated investment earnings.

(2) Interest to and including January 1, 1969 is capitalized.

(3) Fixed by resolution of the Commission. Does not include redemption penalties.

(4) Estimated to be the first full year of operation of the Toll Road. Estimated that the Toll Road will be opened for traffic on December 1, 1967.

## **ENGINEERING AND TRAFFIC REPORTS**

The Commission engaged Howard, Needles, Tammen & Bergendoff, the Consulting Engineers, to make studies of design, principal physical features, project cost and operation and maintenance expenses. The results of these studies are stated in their Engineering Report on the Norfolk-Virginia Beach Toll Road dated September 24, 1965 (herein called the "Engineering Report"), which report is contained herein.

The Commission also engaged Wilbur Smith and Associates, the Traffic Engineers, to make studies of traffic and toll revenue. The results of these studies are stated in their Traffic Report on the Norfolk-Virginia Beach Toll Road dated July 31, 1965 (herein called the "Traffic Report"), which report is contained herein as Appendix A.

The above-mentioned Engineering Report and Traffic Report are a part of this Official Statement and reference is made thereto for information relating to the location and description of the Toll Road, estimate of Toll Road cost, time and completion of the Toll Road, cost of operation and maintenance, recommended toll schedule and traffic and revenue estimates.

RUBEN N. BERGENDOFF  
THEODORE J. CAMBERN  
ELLIS E. PAUL  
JOSEF BORRIN  
ELMER K. TINSY  
CARL L. EBB  
CARL H. PETERSON  
FRANK E. BLEIBSTEIN  
H. C. LAMBERTON, JR.  
JAMES F. FINN

ENOCH R. NEEDLES  
JAMES R. EKUM  
CONSULTANTS

ERNEST E. HOWARD  
1905-1963  
HENRY G. TAMMEN  
1908-1961

## HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS

89 CHURCH STREET, NEW YORK, N.Y. 10007  
CODE: E18, WORTH 4-0000  
CABLE: HOWARDNEED NEWYORK

ALEXANDRIA, VIRGINIA  
AUGUSTA, GA  
BOSTON, MASSACHUSETTS  
CLEVELAND, OHIO  
FAIRFIELD, NEW JERSEY  
KANSAS CITY, MISSOURI  
MILWAUKEE, WISCONSIN  
NEW YORK, NEW YORK  
ORLANDO, FLORIDA  
OVERLAND PARK, KANSAS  
SEATTLE, WASHINGTON  
WASHINGTON, D.C.

September 24, 1965

Department of Highways  
Commonwealth of Virginia  
Richmond, Virginia

Attention: Mr. DOUGLAS B. FUGATE, Commissioner

Subject: Norfolk-Virginia Beach Toll Road

Gentlemen:

The proposed Norfolk-Virginia Beach Toll Road will be a completely modern, east-west controlled access highway within the rapidly growing Norfolk-Virginia Beach metropolitan area of southeastern Virginia and having its eastern terminus in downtown Virginia Beach, the primary recreational and rapidly growing residential area of Tidewater Virginia. The project is about 12.1 miles long. Please refer to the Location Map.

### LOCATION

As shown on the Location Map, the Toll Road at its western end is a continuation of Interstate Route I-264 which will connect with the heart of downtown Norfolk. At the junction between these two routes Interstate Route I-64 forms a roughly circumferential north-south connection with Hampton and Newport News on the north via the Hampton Roads Tunnel and with Chesapeake and Portsmouth on the south and west via I-64, I-264 and I-464. These interstate routes will form an excellent collection and distribution system for the Toll Road, and their completion is scheduled so as to make that system fully effective when the Toll Road is open to traffic. The eastern end of the Toll Road connects directly with the principal north-south streets along the Atlantic shore line in Virginia Beach, providing a ready access to this residential and resort area.

Between its termini, the Toll Road will have interchanges to collect and distribute traffic effectively. The locations of these interchanges appear on the Location Map as open circles.

### PLANNING AND DESIGN

Preliminary traffic, revenue, and engineering studies for the proposed Toll Road were made by Wilbur Smith and Associates. The results of those studies were submitted to the Virginia Department of Highways in a report under date of February 1963. Following the submission of the above-mentioned report Howard, Needles, Tammem & Bergendoff were retained by the Department for the refinement of location, for the final design, and for supervision of construction. After refinements had been completed during the design period, Wilbur Smith and Associates were retained by the Department as Traffic Engineers to prepare an updated estimate of traffic and anticipated revenues. Reference should be made to the latter report of Wilbur Smith and Associates for the traffic and revenue data, corresponding with the design as described hereinafter.

During the design period there were several modifications which had to be considered and which increased the estimated cost of construction. These modifications can be described briefly as follows: slight adjustment in alignment to avoid existing property improvements, and to decrease right-of-way costs; an increase of vertical clearance under bridges over highways to conform to interstate standards; an increase in width of median to provide for one future additional lane in each direction; and the decision to take the Toll Road over Route 615 instead of taking Route 615 over the Toll Road.

### CONSTRUCTION CONTRACTS

Firm bids already have been received from construction contractors for all major items of construction along the full length of the proposed Toll Road. Included in these bids are all grading, drainage, pavement, shoulders, bridges, fencing, and guardrail. The estimated final cost of each of the three general construction contracts was determined by carefully evaluating the quantities of the various items of construction and multiplying these quantities by the respective bid unit prices. Completion of each of these contracts sufficiently to open to traffic is scheduled for December 1, 1967 with liquidated damages to be assessed at the rate of \$1,000 per calendar day per contract thereafter.

The low bidder and the contract bid price of each of the three general construction contracts are tabulated below.

Contract No.	Distance	Contractor	Contract Bid Price
1	3.7 Miles	E. V. Williams Co., Inc., Norfolk, Virginia and Williams Paving Co., Inc., Norfolk, Virginia ..	\$5,586,867
2	4.5 Miles	Ames & Webb, Inc., Norfolk, Virginia and Hig-gerson-Buchanan Inc., Chesapeake, Virginia...	\$6,446,925
3	3.9 Miles	Dickerson of North Carolina, Inc., Monroe, North Carolina .....	\$7,529,541

Additional items of construction required to complete the project are: signs, toll collection facilities, communication facilities, pavement striping, two utility buildings and the trail blazers to be located on feeder routes to the Toll Road. The estimated construction cost of the items not yet bid appears in a later portion of this report, but represents only approximately 6 per cent of the total estimated construction cost.

### CONSTRUCTION SCHEDULE

The construction schedule has been set to conform with the scheduled completion of the principal connecting interstate highways at the west end of the Toll Road. Award of the three construction contracts which have been bid is scheduled to be made immediately after the sale of the bonds. Each of these contracts represents approximately one-third of the construction work involved. Significant construction operations should be under way within one month after the award of these contracts. Opening of the proposed Toll Road to traffic is scheduled for December 1, 1967 with the entire project scheduled for completion on June 1, 1968. Consequently, there will be ample time for all construction operations. The bidding and award of the construction contracts for the minor items which have not yet been bid will be scheduled for effective integration into the overall construction program.

### DESIGN FEATURES

The design of the proposed Toll Road is completely modern in all respects. Access is controlled throughout the length of the project. Maximum grades have been kept to 3.00% in keeping with the

design speed of 70 MPH. Safety has been emphasized. Because the project is located in a coastal area, particular care has been given to the design of adequate drainage, and side slopes have been kept gentle to minimize possible erosion.

Pavements are to be constructed of reinforced concrete and are designed to carry heavy and dense traffic. The adjacent shoulders will provide safe parking areas for disabled vehicles. Throughout the length of the project the supporting soils generally are good. However, there are several points along the length of the project where shallow deposits of soft material were found. All such unsuitable material is to be removed, and the excavation replaced with good material. At another location the alignment crosses a sanitary landfill. Here, too, the unsuitable material is to be replaced with satisfactory material. At only one point, the easterly crossing of the Toll Road over the Norfolk-Southern Railroad, has unsuitable material been encountered at sufficient depth to justify special treatment by sand drains. Conventional excavation and backfill would be more costly because of the depth and volume of required replacement. Adequate provision for the cost of this sand drain treatment has been provided in the construction contracts as bid, and adequate time is in the construction schedule for the accomplishment of this treatment.

For all bridges carrying the Toll Road traffic, full-width shoulders have been carried across the bridges.

The basic roadway to be initially constructed in each direction will consist of two 12-foot lanes with fully paved shoulders. The capacity provided is fully adequate for traffic volumes estimated for revenue purposes. The median width between the two 2-lane roadways to be built during the initial construction is 64 feet, so that one additional 12-foot lane can be added in the future on the left-hand side of each of the two roadways if traffic volumes greatly exceed estimates. Following that construction the width of median will then be 40 feet.

During the development of the design we have enjoyed unusually close liaison with and cooperation of all parties concerned. By reason of this cooperation and the time available for development, no design changes should be required.

#### FOUNDATION CONDITIONS

The investigation of subsurface conditions was unusually thorough. Borings were made at 200-foot intervals along the centerline of each of the two roadways. In addition, borings were made at the location of each bridge abutment and pier and at the major culverts. Samples of material encountered were subjected to laboratory tests and the results carefully analyzed. Because of the thorough subsurface investigation no unanticipated situations are likely to be encountered during construction.

The Virginia Department of Highways adopted the policy of acquiring areas for borrow pits to supply the embankment for this project. To determine the suitability of such borrow, the Department made borings in and analyzed samples from the prospective borrow pits.

#### RIGHT OF WAY

Construction of the Toll Road will require the acquisition of 518 property parcels estimated to cost \$5,350,000. As of September 17, 1965, acquisition had been accomplished for 356 of the parcels at a cost of \$3,770,955 and options to purchase 46 additional parcels at a price of \$471,678 had been acquired. The 402 parcels represent a right-of-way cost of \$4,243,000 or approximately 79% of the total estimated cost for right-of-way. Right of entry has been secured for over 95% of the right-of-way. The remaining 5% is not anticipated to cause any delay in the construction program.

## PERMITS AND AUTHORIZATIONS

Permits were required from the Department of the Army with respect to clearances under the bridges which cross London Bridge Creek and Great Neck Creek. These permits have been obtained.

The Virginia Department of Highways has reached agreement with the City of Virginia Beach within which all borrow pits are located with respect to use of these borrow pits.

Owing to the urban area in which the proposed Toll Road is located and because of its controlled access several existing streets will have to be closed, and certain proposed streets will be unable to extend across the Toll Road right-of-way. The Virginia Department of Highways has reached agreement with the cognizant authorities within the City of Virginia Beach, where all of these closed streets are located, with respect to their closing and the cul-de-sacs or barriers to be used where such closings occur. All construction items associated with the closing of such streets are included in the contracts which have been bid.

The route of the project crosses several utility lines. Agreements have been reached with all the utility companies except the Norfolk-Southern Railroad as to the relocations and reconstructions required. The majority of these are included in the contracts already bid. Certain of the relocations not included in the construction contracts are already in progress. The Department is taking all necessary steps to conclude the agreement with the Railroad and no delay in the construction program is anticipated in connection therewith.

## TOLL COLLECTION

The principal toll collection facility is of the barrier type, located approximately at the middle of the project. Additional toll collection facilities are placed at Interchange Nos. 2, 3 and 5 as described below to provide for collection of toll from all users except for a short portion west of Interchange No. 1, which is a continuation of the connection with Interstate Routes 264 and 64 being constructed with interstate funds. No toll collection facilities are required at Interchange Nos. 1, 4, 6 and 7.

Interchange No. 1 between the Toll Road and Route 652 (Newtown Road) consists of a two-loop, half-diamond configuration. This arrangement provides complete service for Toll Road traffic to Newtown Road from both the eastbound and westbound directions.

Interchange No. 2 between the Toll Road and Route 647 (Witch Duck Road) is also a two-loop, half-diamond configuration. Automatic toll collection facilities are provided at westbound entrance ramp and eastbound exit ramp at this interchange.

Interchange No. 3 between the Toll Road and Roadway G (Independence Boulevard) continues the two-loop, half-diamond arrangement. Automatic toll collection equipment will be installed to intercept westbound entering and eastbound exiting traffic.

Interchange No. 4 between the Toll Road and Route 645 (Rosemont Road) consists of a single half-diamond layout serving inbound motorists to the west and exiting motorists to the east.

Interchange No. 5 at Route 644 (Mapleton Road) is a full-diamond configuration. Toll collection equipment will be installed for traffic to and from the easterly end of the project.

Interchange No. 6 consists of a directional type interchange among Route U.S. 58, Business Route U.S. 58 and the Toll Road to serve Toll Road traffic to and from the west only.

Interchange No. 7 located at Route 637 (Seatack Road) consists of a half-diamond serving eastbound exiting traffic and westbound entering traffic.

All toll collection equipment at interchanges consists of automatic toll collecting units so as to minimize labor costs. For comparison, the toll collection arrangement for the Toll Road is essentially identical to that already in use on the Delaware Turnpike.

**COST ESTIMATE**

The following estimates of construction cost are based on bids received for the major construction items and on careful engineering estimates for the remaining relatively minor items:

**Contracts For Which Bids Have Been Received**  
(Refer to "CONSTRUCTION CONTRACTS" for description)

Construction Contract No. 1 .....	\$ 5,586,867
Construction Contract No. 2 .....	6,446,925
Construction Contract No. 3 .....	<u>7,529,541</u>
SUBTOTAL .....	<u>\$19,563,333</u>

**Contracts For Which Bids Have Not Been Received**

Contracts for Signing and Pavement Striping .....	\$ 260,000
Contracts for Toll Collection Facilities, Communications and Service Buildings .....	500,000
Utility Adjustments by Owners .....	<u>485,000</u>
SUBTOTAL .....	<u>\$ 1,245,000</u>
ESTIMATE OF CONSTRUCTION COST* .....	<u>\$20,808,333</u>
Engineering, Legal and Administration .....	\$ 2,200,000
Right of Way .....	5,350,000
Contingencies .....	<u>1,441,667</u>
TOTAL ESTIMATED PROJECT COST* .....	<u>\$29,800,000</u>

\* Exclusive of interest during construction and financing expenses.

**OPERATION AND MAINTENANCE**

Operation and maintenance of the proposed Toll Road will be administered by the Toll Facilities Manager of the Virginia Department of Highways who already has under his jurisdiction the James River Bridge, the Hampton Roads Tunnel, the George P. Coleman Bridge over the York River, and the Robert O. Norris Bridge over the Rappahannock River, all of which are located in the vicinity of the proposed Toll Road. There is a headquarters building at the toll plaza of the Hampton Roads Tunnel, which will serve the Toll Road as well. In addition, the existing administrative and accounting staff will be utilized, augmented only as required to handle the increased volume of work arising from the Toll Road. Existing facilities for the maintenance of roadway and equipment will serve the Toll Road.

For the foregoing reasons the two modest service buildings to be constructed on the proposed Toll Road project are limited to those functions which are required on the site for effective and efficient toll collection, maintenance and control. Economies in construction cost, in equipment costs, and in the annual costs of operation and maintenance will result from these arrangements.

We have been advised that the Virginia Department of Highways has adopted a resolution expressing its intent to make annual allocations from highway funds for the maintenance of this Toll Road. In view of the foregoing, whereby all maintenance is to be paid from Highway Department funds at no cost to the project, and in the light of experience with many other toll revenue projects, we have esti-



estimated the Operation Expenses chargeable against the project revenues for the first full year of operation as follows:

Administrative:	
Headquarters Staff .....	\$ 12,000
Buildings .....	5,000
Accounting:	
General .....	7,000
Toll Audit .....	10,000
Toll Collection .....	120,000
Communications .....	6,000
Professional Services .....	12,000
<b>TOTAL FOR THE FIRST YEAR .....</b>	<b>\$172,000</b>

A table of estimated Operation Expenses has been prepared which projects these expenses, it being unnecessary to provide for deposits to a Reserve Maintenance Fund under these circumstances.

**Estimated Operation and Maintenance Expenses With State Maintenance**

Year	Operation Expenses	Year	Operation Expenses
1968 .....	\$172,000	1976 .....	\$230,000
1969 .....	175,000	1977 .....	230,000
1970 .....	180,000	1978 .....	240,000
1971 .....	200,000	1979 .....	240,000
1972 .....	210,000	1980 .....	250,000
1973 .....	210,000	1981 .....	250,000
1974 .....	220,000	1982 .....	260,000
1975 .....	220,000	and thereafter .	260,000

In order to show what the situation would have been in the event that the Highway Department had not so acted to assist in the financing of this project, we have prepared a second estimate for the first full year of operation wherein all expenses of ordinary maintenance are included, with the following result:

Administrative:	
Department of Highways .....	\$ 3,000
Headquarters' Staff .....	12,000
Legal .....	6,000
Buildings .....	5,000
Maintenance .....	78,000
Accounting:	
General .....	7,000
Toll Audit .....	10,000
Toll Collection .....	120,000
Communications .....	6,000
Policing .....	50,000
Professional Services .....	12,000
<b>TOTAL FOR THE FIRST YEAR .....</b>	<b>\$309,000</b>

We have projected these latter ordinary Operation and Maintenance Expenses, and our estimates of requirements for a Reserve Maintenance Fund.

**Estimated Operation and Maintenance Expenses Without State Maintenance**

Year	Operation and Maintenance	Reserve Maintenance Fund	Total
1968 .....	\$309,000	\$ 10,000	\$319,000
1969 .....	315,000	20,000	335,000
1970 .....	320,000	30,000	350,000
1971 .....	345,000	40,000	385,000
1972 .....	355,000	50,000	405,000
1973 .....	365,000	60,000	425,000
1974 .....	375,000	75,000	450,000
1975 .....	375,000	75,000	450,000
1976 .....	375,000	75,000	450,000
1977 .....	375,000	75,000	450,000
1978 .....	400,000	100,000	500,000
1979 .....	400,000	110,000	510,000
1980 .....	400,000	120,000	520,000
1981 .....	400,000	130,000	530,000
1982 .....	450,000	150,000	600,000

and thereafter.

The foregoing, in our opinion, in each case properly reflects the added expenses which will occur as the result of increases in traffic volume, increasing wage rates and aging of the elements of construction. The cost of insurance was not included in our estimated ordinary Operation and Maintenance Expenses for the first three years of operation since this cost is to be capitalized for that period. The operation and maintenance expenses for the year 1971 and thereafter do include an estimated insurance cost of \$20,000 per year. The foregoing estimates do not include any allowance for adding the third lane to each roadway. If and when the latter becomes necessary, it will be caused by traffic volumes (and therefore revenues) in excess of the current estimates.

**CONCLUSION**

It is our considered conclusion that the proposed Toll Road can be constructed as designed and that all initial costs of the project can be cared for within the total project cost estimated herein. We further conclude that the time allowed for construction is adequate, and that our estimates of annual operating expenses are realistic.

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
Consulting Engineers

## SUMMARY OF CERTAIN PROVISIONS OF THE TRUST INDENTURE

The following statements are brief summaries of certain provisions of the Trust Indenture. Such statements do not purport to be complete and reference is made to the Trust Indenture, copies of which are on file and available for examination at the offices of the Commission and the Trustee.

### TOLL COVENANTS

#### The Commission covenants in the Trust Indenture

(a) that before the Project or any part thereof is opened for traffic it will fix and place in effect an initial schedule of tolls for traffic using the Project, which schedule will be in substantial conformity with the tolls recommended by the Traffic Engineers in the Traffic Report, subject to any change which will not, in the opinion of the Traffic Engineers, result in producing less revenues,

(b) that it will not change the toll collecting facilities or change such tolls if, in the opinion of the Traffic Engineers, such change will result in producing less revenues unless such change, in the opinion of the Traffic Engineers, will still produce revenues sufficient to provide for the deposit to the Sinking Fund and the Improvement Fund in each fiscal year of an amount not less than (1) the amount of estimated net revenues (over and above current expenses and deposits to the Reserve Maintenance Fund) for each such fiscal year as determined from the estimates set forth in the Traffic Report and in the Engineering Report or, in case any additional bonds shall be issued under the Trust Indenture for the purpose of providing additional funds for completing payment of the cost of the Project, such estimated net revenues plus an amount equal to such percentage thereof as is obtained by dividing the principal amount of such additional bonds by the principal amount of the Bonds, or (ii) 135% of the maximum amount of the Principal and Interest Requirements (hereinafter mentioned) for any fiscal year thereafter on account of all bonds then outstanding, whichever is the lesser amount, and

(c) that if the schedule of tolls then in effect is not producing the revenues sufficient to provide for the deposit to the Sinking Fund and the Improvement Fund in each fiscal year of an amount not less than 120% of the Principal and Interest Requirements for such fiscal year, it will request the Traffic Engineers to make recommendations as to a revision of the schedule of tolls in order to produce the maximum amount of net revenues possible and, upon receiving such recommendations, it will revise such schedule of tolls in order to produce the maximum amount of net revenues possible, provided that such maximum amount need not exceed the amount referred to in this clause (c).

The Commission further covenants that, if the amount of the net revenues in any fiscal year shall be less than the amount referred to in (c) above for such fiscal year, it will, before the 15th day of February of the following fiscal year, request the Traffic Engineers to make recommendations as to a revision of the schedule of tolls in order to produce the maximum amount of net revenues possible and, upon receiving such recommendations, it will revise such schedule of tolls in order to produce the maximum amount of net revenues possible, provided that such maximum amount need not exceed the amount referred to in (c) above.

If the Commission shall comply with all recommendations of the Traffic Engineers (or such independent engineer or engineering firm or corporation required by the Trust Indenture to be appointed by the Trustee in the event that the Traffic Engineers fail to file such recommendations within 60 days from the date such request is made by the Commission) in respect of tolls, it will not constitute an event of default under the Trust Indenture even though the amount of the net revenues in any fiscal year shall be less than the amount referred to in (c) above for such fiscal year. In the event of any such deficiency and regardless of any recommendations of the Traffic Engineers or compliance therewith by the Commission, the Trustee or the holders of not less than 15% in aggregate principal amount of the bonds then outstanding may, however, and the Trustee shall, upon the written request of the holders of not less than 10% in aggregate principal amount of the bonds then outstanding and upon being indemnified to its satisfaction, institute and prosecute in a court of competent jurisdiction an appropriate action to compel the Commission to revise the schedule of tolls in order to produce the amount referred to in (c) above. The Commission covenants that it will adopt and charge tolls in compliance with any final order, decree or judgment entered in any such action.

The Commission further covenants that tolls will be classified in a reasonable way to cover all traffic, so that the tolls may be uniform in application to all traffic falling within any reasonable class regardless of the status or character of any person, firm or corporation and that no reduced rate of toll will be allowed within any such class except that provision may be made for the use of commutation or other tickets or privileges based upon frequency or volume.

The Commission further covenants that no free vehicular passage will be permitted on the Toll Road or any part thereof except to vehicles of members, officers and employees of the Commission, the State Department of Highways and the Division of Motor Vehicles while they are in the discharge of their official duties, to vehicles of any fire or police department of the State of Virginia or any political subdivision thereof while operated in the discharge of official duties, to ambulances owned or operated by a political subdivision of the State of Virginia or a non-profit organization while in the discharge of their duties and to vehicles owned or operated by agents and independent contractors of the Commission which are used in connection with the maintenance or operation of the Toll Road and except as is permitted on account of the interchanges and the toll collecting facilities provided for in the Traffic Report.

### COLLECTION AND DISPOSITION OF REVENUES

#### Revenue Fund and Annual Budget for Current Expenses

A special fund is created in the State Treasury by the Trust Indenture and designated "State of Virginia 1965 Toll Project Revenue Fund" (herein called the "Revenue Fund"). The Commission covenants that all tolls and other revenues derived from the operation or ownership of the Toll Road will be collected by the Commission and deposited daily, so far as practicable, in a state depository, in the name of the State Treasurer for the credit of the Revenue Fund. The State Treasurer makes monthly transfers to the Trustee for the credit of a special fund designated "1965 Revenue Fund—Trustee Account". The first charge against the 1965 Revenue Fund—Trustee Account is the payment of current expenses.

The Consulting Engineers will make an inspection of the Toll Road at least once in each year following the opening of the Project for traffic and submit to the Commission on or before October 1 in each such year a report setting forth their findings whether the Toll Road has been maintained in good repair, working order and condition. This report will also contain the recommendations of the Consulting Engineers as to the proper maintenance, repair and operation of the Toll Road during the ensuing fiscal year and the estimated amount of money necessary for such purposes, insurance to be carried and the amounts, if any, to be deposited during the ensuing fiscal year to the Reserve Maintenance Fund and the Improvement Fund. The Consulting Engineers will also submit a report setting forth their recommendations with respect to the items referred to in the preceding sentence for the period from the opening of the Project for traffic until the close of the appropriate fiscal year. The Commission covenants that it will promptly restore the Toll Road to good repair, working order and condition in accordance with the recommendations of the Consulting Engineers.

The Commission covenants that on or before the 10th day of October in each fiscal year it will prepare a preliminary budget of current expenses for the ensuing fiscal year. Upon the written request of the Trustee, the holders of 5% in aggregate principal amount of the bonds then outstanding or a majority of the principal underwriters (as defined in the Trust Indenture), the Commission shall upon notice hold a public hearing prior to November 20. The Commission will adopt the annual budget on or before December 1 of each year. If for any reason the Commission shall not have adopted the annual budget before the first day of any fiscal year, the preliminary budget for such fiscal year, if approved by the Consulting Engineers, or if there is none so approved, the budget for the preceding fiscal year, shall, until the adoption of the annual budget, be in force. The Commission may at any time, with the approval of the Consulting Engineers, adopt an amended or supplemental annual budget for the remainder of the then current fiscal year. The Commission covenants that the current expenses for maintenance, repair and operation will not exceed the amounts provided therefor in the annual budget, except amounts which may be paid from the Reserve Maintenance Fund. The Trust Indenture provides for the adoption of an initial budget for the Project for the period of time covered by the first report of the Consulting Engineers.

Copies of all such reports, annual budgets or amended or supplemental annual budgets and notices shall be filed with or mailed to the Trustee, the Traffic Engineers, the Consulting Engineers, the principal underwriters and all bondholders who have filed their names and addresses with the Commission for such purpose.

In general, payments can not be made from the 1965 Revenue Fund—Trustee Account for current expenses unless there is filed with the Trustee a requisition, signed by the proper officer or employee of the Commission, stating to whom payment should be made, the purpose and amount of the expenditures, accompanied by a certificate, signed by the State Highway Commissioner or employee of the Commission, that the obligations were properly incurred and are due and payable, and that the total amount of such payments will not be in excess of the unencumbered balance of the annual budget. A revolving fund to be held by the Commission aggregating not more than \$50,000 is provided for convenience, which fund may be reimbursed upon similar requisition.

#### **Sinking Fund, Reserve Maintenance Fund and Improvement Fund**

A special fund is created by the Trust Indenture and designated "State of Virginia Toll Revenue Bonds (Series 1965) Interest and Sinking Fund" (herein called the "Sinking Fund"). Three separate accounts are created in the Sinking Fund, namely, "Bond Interest Account", "Reserve Account" and "Redemption Account". Two additional funds are created by the Trust Indenture called the "State of Virginia 1965 Toll Project Reserve Maintenance Fund" (herein called the "Reserve Maintenance Fund") and the "State of Virginia 1965 Toll Project Improvement Fund" (herein called the "Improvement Fund").

It shall be the duty of the Trustee, on or before the 27th day of each month, to withdraw from the 1965 Revenue Fund—Trustee Account the amount of all moneys held in the 1965 Revenue Fund—Trustee Account on the last day of the preceding month less the amount in the revolving fund therein and an amount (to be held as a reserve for current expenses) equal to 20% of the amount shown by the annual budget to be necessary for current expenses for the current fiscal year and deposit the sum so withdrawn to the following Accounts or Funds in the following order:

- (a) to the Bond Interest Account, until an amount equal to 6 months' interest on all bonds then outstanding, except for certain interest payable from the Construction Fund, has been accumulated;
- (b) to the Reserve Maintenance Fund, until the amount so deposited equals the amount recommended by the Consulting Engineers;
- (c) to the Reserve Account, until the balance therein is equal to 18 months' interest on all bonds then outstanding;
- (d) to the Redemption Account until the amount so deposited equals the Amortization Requirements (as defined in the Trust Indenture), if any, for such fiscal year for the bonds of each Series then outstanding, plus the premium, if any, on such principal amount of bonds which would be payable in such fiscal year if such bonds were redeemed prior to maturity from Sinking Fund moneys;
- (e) to the Improvement Fund, until the amount so deposited equals the amount recommended by the Consulting Engineers; and
- (f) to the Redemption Account, any balance remaining after making the above deposits.

Moneys held in the Reserve Account shall be used for the purpose of paying interest on bonds whenever moneys held in the Bond Interest Account shall be insufficient for such purpose. If at any time during the first 15 days of May or November in each fiscal year the moneys held in the Reserve Account shall exceed 18 months' interest on all bonds then outstanding, such excess shall be transferred by the Trustee to the Redemption Account. The Trustee may, however, in its discretion transfer such excess moneys at any time.

Moneys held in the Reserve Maintenance Fund shall be disbursed only for paying the cost of resurfacing all or any part of the Toll Road, unusual or extraordinary maintenance or repairs, maintenance or repairs not recurring annually and renewals and replacements, including major items of equipment, certain emergency repairs or replacements and insurance premiums, and may also be disbursed, when the insurance proceeds are

insufficient, for meeting deficiencies in the payment of the cost of the repair, replacement or reconstruction of any damaged or destroyed property of the Toll Road.

If at any time the moneys held in the Bond Interest Account and the Reserve Account shall be insufficient for the purpose of paying the interest on bonds when due, the Trustee shall transfer from the Reserve Maintenance Fund to the Bond Interest Account an amount sufficient to make up any such deficiency.

Moneys held in the Redemption Account shall be applied to the purchase or redemption of bonds of each Series issued under the Trust Indenture and as provided in the Trust Indenture.

Moneys held in the Improvement Fund shall be disbursed only for paying if and to the extent then permitted by law, all or any part of the cost of any additions, improvements and enlargements to the Project, and may also be disbursed, when the insurance proceeds are insufficient, for meeting deficiencies in the payment of the cost of the repair, replacement or reconstruction of any damaged or destroyed property of the Toll Road.

If at any time the moneys held in the Bond Interest Account, the Reserve Account and the Reserve Maintenance Fund shall be insufficient for the purpose of paying the interest on bonds when due, the Trustee shall transfer from the Improvement Fund to the Bond Interest Account an amount sufficient to make up any such deficiency.

Moneys held in the Reserve Maintenance Fund and the Improvement Fund shall be transferred from time to time by the Trustee to the 1965 Revenue Fund—Trustee Account and the Redemption Account, respectively, upon resolution of the Commission and a certificate of the Consulting Engineers certifying that the transferred amount is not required for the purposes for which said Fund has been created.

#### **CUSTODY AND APPLICATION OF BOND PROCEEDS**

Simultaneously with the delivery of the Bonds, the proceeds (including accrued interest) thereof will be paid to the State Treasurer who will simultaneously therewith, upon warrants of the State Comptroller, disburse such proceeds as follows:

- (1) The sum of \$300,000 will be paid to the Trustee for deposit in a special checking account to be used by the Commission for the payment of expenses incident to the financing.
- (2) The balance of said proceeds will be paid to the Trustee for deposit in the State of Virginia 1965 Toll Project Construction Fund (herein called the "Construction Fund").

There will be set aside from the proceeds of the Bonds and credited to a separate interest account in the Construction Fund the amount required for paying the interest due and payable to and including January 1, 1969.

Payments are to be made from the Construction Fund to meet the costs of the Project as such costs are defined in the State Revenue Bond Act and in the Trust Indenture. Before any such payments can be made, except the payments from the separate interest account, there must be filed with the Trustee a requisition approved by the Consulting Engineers and signed by the proper officer or employee of the Commission accompanied by a certification of the State Highway Commissioner or employee of the Commission. The Trust Indenture provides for the creation of a revolving fund of \$50,000 to be held by the Commission for the payment of items of cost of the Project which can not conveniently be paid on such requisitions. The revolving fund is to be reimbursed as payments are made therefrom upon requisition of the Commission approved by the Consulting Engineers.

Upon completion of construction of the Project as provided in the Trust Indenture, the balance in the Construction Fund (excluding any amount in the separate interest account) not reserved by the Commission with the approval of the Consulting Engineers for the payment of any remaining part of the cost of the Project shall be transferred or deposited to the Reserve Account, provided that the Commission may from time to time, with the approval of the Consulting Engineers, authorize and direct the Trustee to transfer to the Reserve Account all or a portion of the funds held in the Construction Fund in excess of the amount then

estimated by the Commission, with the approval of the Consulting Engineers, to be sufficient to complete payment of the cost of the Project. Provision is made for the retransfer of any such funds to the Construction Fund in the event that the cost of the Project exceeds such estimate.

#### ADDITIONAL BONDS

The Trust Indenture provides that, in addition to the Bonds now being issued, revenue bonds of the State of Virginia may be issued if and to the extent necessary to provide additional funds for completing payment of the cost of the Project, subject to the filing with the Trustee, among other documents, of a statement signed by the Consulting Engineers and approved by the Chief Engineer, setting forth the Consulting Engineers' estimates of the date on which the Project will be opened for traffic, unless already so opened, and the date on which the construction of the Project will be completed and certifying that, according to the Consulting Engineers' estimate, the proceeds of such additional bonds will be required and will be sufficient to pay the balance of the cost of the Project. Such Series of additional bonds shall mature at the same time as the Bonds, but may have different interest rates and redemption provisions.

Additional revenue bonds of the State of Virginia may also be issued to pay all or any part of the cost of any additions, improvements and enlargements to the Project (herein called the "Improvements") at any time or times after the expiration of 24 months following the opening of the Project for traffic, if and to the extent then permitted by law. Such Series of additional bonds shall mature not earlier than January 1, 2005 and not later than 40 years from their date, and may have different interest rates and redemption provisions. Prior to the issuance of such additional bonds the following, among other conditions, must be met:

(a) There must be filed with the Trustee a certificate, signed by the State Highway Commissioner and approved by an independent firm of certified public accountants, setting forth:

(i) the amount obtained by dividing by two the total amount of the net revenues of the Toll Road (the Project together with any Improvements) for the last 24 months, and

(ii) the respective amounts of the Principal and Interest Requirements (as defined in the Trust Indenture) for each fiscal year thereafter for the bonds of each Series then outstanding and such additional bonds.

(b) The Trustee must determine that

(i) the proceeds of such additional bonds, together with any other funds available for the purpose, will not be less than the cost of the Improvements to be constructed as estimated by the Consulting Engineers, and

(ii) the percentage derived by dividing the amount shown in (a)(i) above by the maximum amount of the Principal and Interest Requirements for any fiscal year thereafter for all bonds then outstanding and such additional bonds shall be not less than 135%.

#### INSURANCE

The Commission covenants that during the construction of the Project or any Improvements it will carry such builders' risk insurance as shall be recommended by the Consulting Engineers and that from and after the time when the contractors engaged in constructing any bridge or elevated structure constituting a part of the Toll Road the replacement cost of which exceeds \$500,000 shall cease to be responsible, it will insure and keep insured such bridge or structure with responsible insurance companies against physical loss or damage however caused with such exceptions as are ordinarily required by insurers of structures or facilities of similar type. Such insurance shall be carried in an amount not less than 80% of the replacement value of each such bridge or structure, less depreciation, as certified by the Consulting Engineers, provided that such amount of insurance shall at all times be sufficient to comply with any legal or contractual requirement which, if breached, would result in assumption by the Commission of a portion of any loss or damage as a co-insurer. Such insurance may provide for the deduction from each claim for loss or damage (except in case of a total loss) of not more than 2% of the replacement value of the property insured, less depreciation.

The proceeds of all such insurance shall be available for, and shall to the extent necessary be applied to, the repair, replacement or reconstruction of the damaged or destroyed property. If the proceeds are more than sufficient for such purpose, the balance shall be deposited in the Reserve Maintenance Fund or the Redemption Account as the Commission may determine. If the proceeds are insufficient for such purpose, the deficiency shall be supplied from any moneys in the Reserve Maintenance Fund or the Improvement Fund.

The Commission covenants to carry such workmen's compensation or employers' liability insurance as may be required by law and such use and occupancy insurance, public liability, property damage and other insurance as the Consulting Engineers may recommend.

If such insurance be unobtainable either as to amount or risks covered, it will not constitute an event of default if the Commission shall carry such insurance to the extent reasonably obtainable.

#### REPORTS AND AUDITS

The Commission covenants that, at least once in each three months after the delivery of the Bonds and until completion of construction of the Project, it will prepare a progress report in connection with the acquisition of the right of way for the Project and will cause the Consulting Engineers to prepare a progress report in connection with the construction of the Project, including their current estimates of the date on which the Project will be opened for traffic, the date on which the construction of the Project will be completed, the cost of the Project and the amount of funds required each three months during the remaining period of construction, and comparisons between such dates and cost and the estimated dates and cost set forth in the Engineering Report and their statement filed with the Trustee prior to the delivery of the Bonds. At least once in each six months during the construction of the Project, the Commission will cause an audit to be made by an independent firm of certified public accountants of all receipts and moneys then on deposit with or in the name of the Trustee and the Commission and any security held therefor, any investments thereof and all disbursements made from the Construction Fund. Such progress and audit reports will be filed with the Trustee and copies thereof will be mailed to the principal underwriters and all bondholders who shall have filed their names and addresses with the Commission for such purpose.

The Commission covenants to keep an accurate record of the total cost of the Toll Road, of the daily tolls and other revenues collected, of the number and class of vehicles using the Toll Road, and of the application of such tolls and other revenues. Such records shall be open at all reasonable times to the inspection of the Trustee, the principal underwriters and the bondholders and their agents and representatives.

The Commission covenants that at least once each month after the opening of the Project or any part thereof for traffic it will cause to be filed with the Trustee and mailed to the Consulting Engineers, the Traffic Engineers, the principal underwriters and all bondholders who shall have filed their names and addresses with the Commission for such purpose, copies of any revisions of the toll schedule during the preceding calendar month and a report which shall include a statement of its operations during the preceding calendar month, including an income and expense account for the Toll Road, the number of vehicles in each toll class using the Toll Road and the revenues derived from each such class, all deposits to the credit of and withdrawals from each Fund and Account created by the Trust Indenture, the amounts on deposit at the end of each month to the credit of each such Fund and Account, the details of all bonds issued, paid, purchased or redeemed, the balance sheet as of the end of the preceding month, the proceeds received from insurance and from any sale of property pursuant to the Trust Indenture.

The Commission covenants that promptly after the close of each fiscal year after the opening of the Project or any part thereof for traffic it will cause an audit to be made of its books and accounts relating to the Toll Road by an independent firm of certified public accountants, and that it will cause a report of such audit, setting forth the same matters as are required for the monthly reports referred to above, as well as a schedule of all insurance policies then in effect and the findings of such accountants as to whether the moneys received by the Commission have been applied in accordance with the Trust Indenture, whether any obligations for current expenses were incurred in the preceding fiscal year in excess of the annual budget, whether the net revenues of the Toll Road for the preceding fiscal year have exceeded or were less than the amount for such fiscal year referred to in (c) under the caption "Toll Covenants" and whether the



Commission is in default in the performance of any of its covenants with respect to tolls, to be prepared and filed with the Commission and the Trustee, and copies thereof to be mailed to the Consulting Engineers, the Traffic Engineers, the principal underwriters and all bondholders who shall have filed their names and addresses with the Commission for such purpose.

Both the monthly reports and the annual audit reports will be open to the inspection of the bondholders and their agents and representatives.

#### INVESTMENTS

Moneys in the Construction Fund, excluding the moneys in the separate interest account therein, shall, as nearly as may be practicable, be invested and reinvested by the Trustee in direct obligations of, or obligations the principal of and the interest on which are unconditionally guaranteed by, the United States Government, Federal Intermediate Credit Banks, Federal Land Banks, Federal National Mortgage Association, Federal Home Loan Banks or Banks for Cooperatives, which shall mature or which shall be subject to redemption by the holder thereof at the option of such holder, not later than one year after the date on which the Project is estimated by the Consulting Engineers to be opened for traffic.

Moneys in the Construction Fund on or after such one-year period, as well as moneys in certain other Funds and Accounts, shall, as nearly as may be practicable, be invested and reinvested by the Trustee in direct obligations of, or obligations the principal of and the interest on which are unconditionally guaranteed by, the United States Government which shall mature, or which shall be subject to redemption by the holder thereof at the option of such holder, in the case of the Construction Fund, excluding the moneys in the separate interest account therein, not later than one year after the date of such investment; in the case of said separate interest account and the Bond Interest Account not later than the respective dates when the moneys held for the credit of said Accounts will be required for the purposes intended; and in the case of the Reserve Account, the Reserve Maintenance Fund and the Improvement Fund not later than five years after the date of such investment.

#### CONSULTING AND TRAFFIC ENGINEERS

The Commission covenants to employ consulting engineers and traffic engineers of nation-wide and favorable repute for skill and experience in such work for the purpose of performing and carrying out the duties imposed on the Consulting Engineers and the Traffic Engineers by the Trust Indenture.

#### MODIFICATION OF TRUST INDENTURE

The Commission and the Trustee may enter into supplemental indentures to cure any ambiguity, formal defect or omission in the Trust Indenture or to grant to the Trustee for the benefit of the bondholders any additional rights, remedies, powers, authority or security that may be lawfully granted. The Trust Indenture may be modified, altered, amended, added to or rescinded in any particular from time to time with the consent of the holders of not less than two-thirds in aggregate principal amount of the bonds outstanding, provided that nothing shall permit (a) an extension of the maturity of the principal of or the interest on any bond, (b) a reduction in the principal amount of any bond, the redemption premium or the rate of interest, (c) the creation of a lien upon or a pledge of revenues other than the lien and pledge created by the Trust Indenture, (d) a preference or priority of any bond or bonds over any other bond or bonds, or (e) a reduction in the aggregate principal amount of the bonds required for consent to such supplemental indenture.

#### REMEDIES OF BONDHOLDERS

The Trust Indenture defines events of default which include failure to pay principal, redemption premium or any instalment of interest, failure to carry on with reasonable dispatch the construction of the Project, failure after written notice by the Trustee (who is required to give such notice at the written request of the holders of 10% of the aggregate principal amount of the bonds then outstanding) to perform any covenant, condition, agreement or provision contained in the bonds or the Trust Indenture, the Commission's being rendered incapable of fulfilling its obligations under the Trust Indenture, failure to pay any final money judgment after the entry thereof, the entry of a decree appointing a receiver with or without the consent or acquiescence of the Com-

mission, the institution of proceedings with the consent or acquiescence of the Commission for the purpose of adjusting the claims of creditors pursuant to any federal or state statute and failure promptly to repair, replace or reconstruct any substantial part of the Toll Road which may be damaged or destroyed to the detriment thereof, in each case within or for the specified period of grace, if any.

In the event of any default, the Trustee may on its own initiative and shall, upon satisfactory indemnification and the request of the holders of not less than 10% in aggregate principal amount of the bonds then outstanding, proceed either at law or in equity to protect and enforce any and all rights of the Trustee and the bondholders under the laws of Virginia or the Trust Indenture and may enforce and compel the performance of all duties required under the laws of Virginia or the Trust Indenture to be performed by the Commission.

#### **TAX EXEMPTION**

In the opinion of Bond Counsel, interest on the Bonds is exempt from all present Federal income taxes.

The State Revenue Bond Act provides that the Bonds and the income thereof shall be exempt from all taxation within the State of Virginia.

#### **LEGALITY FOR INVESTMENT**

The State Revenue Bond Act provides that the Bonds are made securities in which all public officers and bodies of the State of Virginia and its political subdivisions, all insurance companies and associations, all national banks and trust companies, and savings institutions, including savings and loan associations, in the State of Virginia, and all executors, administrators, trustees, and other fiduciaries, both individual and corporate, may properly and legally invest funds within their control.

#### **LEGAL MATTERS SUBJECT TO APPROVAL OF COUNSEL**

All legal matters incident to the authorization and issuance of the Bonds are subject to the unqualified approving opinion of Mitchell, Pershing, Sherrerty & Mitchell, New York, N. Y., Bond Counsel. Copies of the opinion of Bond Counsel will be available at the time of delivery of the Bonds.

#### **MISCELLANEOUS**

The foregoing summaries of the provisions of the State Revenue Bond Act, the Bonds and the Trust Indenture do not purport to be complete and are made subject to the detailed provisions thereof to which reference is hereby made. Copies of the Trust Indenture are available for inspection at the office of the Commission and at the principal office of the Trustee.

There is appended to this Official Statement the Traffic Report of Wilbur Smith and Associates.

STATE HIGHWAY COMMISSION OF VIRGINIA

By **DOUGLAS B. FUGATE,**  
*State Highway Commissioner.*

*Wilbur Smith and Associates*

Cable: Wilsmith

CONSULTING ENGINEERS

493 ORANGE STREET

*New Haven, Conn. 06504*

July 31, 1965

Mr. Douglas B. Fugate  
 Commissioner  
 Virginia Department of Highways  
 1221 E. Broad Street  
 Richmond, Virginia 23219

Dear Mr. Fugate:

We are pleased to submit this report of estimated traffic and revenues for the proposed Norfolk-Virginia Beach Toll Road.

The findings are based upon extensive field investigations, including origin and destination surveys conducted in 1962 and 1965, vehicle classification counts, route reconnaissance and travel time and distance studies. Trends in population and various economic indices for the Norfolk-Virginia Beach area were evaluated. In addition, all available traffic data were assembled and carefully analyzed. Maximum use was also made of several previous studies pertinent to this project.

Toll revenues during 1968, the assumed first full year of operation, of \$1,867,000 are estimated for the proposed Norfolk-Virginia Beach Toll Road. This is estimated to increase to an average of \$2,187,000 over the first five years of operation, to \$2,513,000 over the first ten years of operation, and to \$3,393,000 over the 37-year earning period.

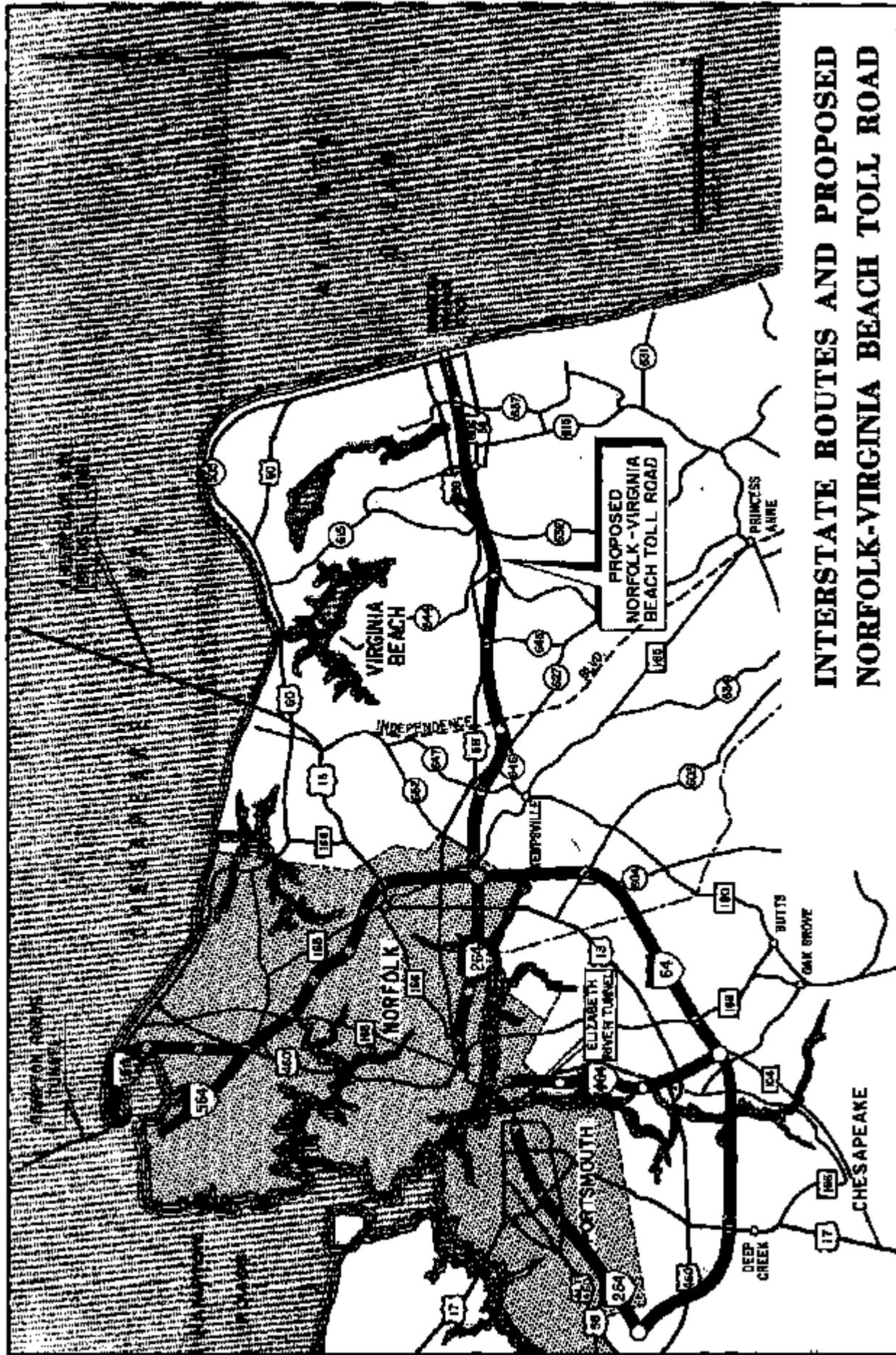
We gratefully acknowledge the excellent assistance and cooperation of the Virginia Department of Highways throughout this study. We have enjoyed working with you on this most interesting and important project.

Respectfully submitted,

WILBUR SMITH AND ASSOCIATES

*Paul E. Conrad*

PAUL E. CONRAD



**INTERSTATE ROUTES AND PROPOSED  
NORFOLK-VIRGINIA BEACH TOLL ROAD**

**FIGURE 1**

*Wilbur Smith and Associates*

# CHAPTER

# 1

## INTRODUCTION

The Norfolk-Portsmouth metropolitan area is one of the most dynamic urban areas in the nation. The site of perhaps the largest military installation in the country, excellent growths in all facets of its economy have occurred during the past several years. To complement this growth, an Interstate Highway network including both radial and circumferential routes is planned for the Norfolk-Portsmouth area.

Virginia Beach, to the east of Norfolk, serves as the primary recreational area for Tidewater Virginia and is one of the most popular tourist resorts along the entire east coast. In addition, it is becoming increasingly important as a residential area. The proposed Norfolk-Virginia Beach Toll Road, in combination with Interstate Route 264, would provide a direct high-speed route between the Norfolk-Portsmouth metropolitan area and downtown Virginia Beach. "Downtown Virginia Beach," as used in this report, refers to the old city limits of Virginia Beach, an area of approximately 2.0 square miles bounded on one side by the Atlantic Ocean. In 1963, the city merged with Princess Anne County to form the new municipality of Virginia Beach. The location of the proposed toll road in relation to existing highways and planned Interstate routes is illustrated in Figure 1.

At the present time, U. S. Route 58 serves as the primary through highway between Norfolk and downtown Virginia Beach. Extensive residential and commercial development has occurred along this facility in recent years, which, combined with heavy recreational usage during summer months, causes congestion on the facility during periods of heavy usage.

### Enabling Legislation

Authority to construct the proposed Norfolk-Virginia Beach Toll Road was set forth in an

Act approved by the General Assembly of Virginia in 1962.<sup>1</sup> The part of the act referring to the proposed facility reads as follows:

"Construction of projects. The Commission may construct, whenever it shall deem such construction expedient, any of the projects numbered paragraphs (a), (b), (d), (e), (j) and (k), as set forth in subsection (2) of Section 33-228."

Paragraph (k) of subsection (2) of Section 33-228 which is referred to above reads as follows:

"(k) The Norfolk-Virginia Beach Highway, extending from a point in the vicinity of the intersection of interstate route sixty-four and primary route fifty-eight at Norfolk to some feasible point between Londonbridge and primary route sixty; however, the project authorized by this subsection shall not be coupled or united with any other project or projects for the purpose of financing its construction and operation."

### Authority for Study

On December 30, 1963, the Department of Highways, Commonwealth of Virginia, authorized preparation of a comprehensive traffic and revenue report for the proposed Norfolk-Virginia Beach Toll Road. The report, as developed, would be of adequate scope for revenue bond financing of the proposed facility. On April 23, 1965, further authorization was received to update the analyses and findings developed during the course of the initial studies.

### Description of Project

The proposed Norfolk-Virginia Beach Toll Road would be a modern four-lane divided,

<sup>1</sup> Section 33-234, Chapter 273, General Assembly, Virginia, approved March 15, 1962.

fully controlled access highway. The facility would begin at the proposed Interstate Route 64-264 Interchange with the first toll road interchange located at Secondary Route 652. Moving southeasterly, roughly paralleling U. S. Route 58, the toll road would next interchange with Secondary Route 647 and then with proposed Independence Boulevard connecting Secondary Route 627 and U. S. Route 58, near Powells Crossroads. Moving east, the next interchange would be with Secondary Route 645. The route would then follow south of the Norfolk-Southern Railroad alignment to an interchange with Secondary Route 644, south of Lynnhaven.

Moving northeasterly, a major interchange would be provided with U. S. Routes 58 and 58 Business. The facility would then continue easterly to an interchange with Secondary Route 637; the easterly terminus of the toll road would be approximately 0.8 miles to the east where the eastbound roadway of the toll road would connect with 21st Street and the westbound roadway with 22nd Street in downtown Virginia Beach.

The proposed Norfolk-Virginia Beach Toll Road would be approximately 12.1 miles long.

Interchanges accommodating all movements are contemplated at Secondary Route 652, Secondary Route 647, Independence Boulevard and Secondary Route 644. Ramps serving movements to and from the west only would be provided at Secondary Route 645, the major interchange with U. S. Routes 58 and 58 Business, and at Secondary Route 637. Approximate distances between interchanges is given in Table 1.

### **Purpose and Scope of Report**

The purpose of this report is to estimate usage and revenues for the proposed Norfolk-Virginia Beach Toll Road.

A general economic evaluation of the area which would be directly served by the proposed facility was made. Trends in population, retail sales, average effective buying income per family, motor vehicle registrations and motor fuel consumption were analyzed. In addition, sales tax collections in downtown Virginia Beach and trends in revenue derived from amusement, restaurant and hotel taxes were also analyzed.

Origin and destination roadside interview studies were conducted at several locations in the Norfolk-Virginia Beach travel corridor on both weekdays and weekends. Vehicle classification counts and machine volume counts were obtained at each of the survey stations. Annual, seasonal, and daily traffic variations in the travel corridor of the proposed toll road were also investigated.

Several toll collection schemes and various toll rates were studied; the toll schedule which provided the best balance between traffic service and revenues is that recommended herein. Estimated first year usage of the proposed toll road was developed based upon time-distance relationships and empirical curves developed from studies of similar facilities. Annual usage of the proposed toll road in subsequent years was estimated based upon growths in traffic on existing highways and anticipated increases in economic activity in the area of the toll road. In addition, a level of induced growth, including both generated and develop-

Table 1

### **DISTANCE BETWEEN INTERCHANGES**

<u>INTERCHANGE</u>	<u>MILES</u>
Western Terminus	0.4
Secondary Route 652	1.5
Secondary Route 647	1.3
Proposed Independence Boulevard	2.3
Secondary Route 645	1.7
Secondary Route 644	1.2
U. S. Routes 58 and 58 Business	2.9
Secondary Route 637	0.8
Eastern Terminus	—
Total	12.1

ment, was estimated during the initial years of operation.

#### **Previous Studies**

Maximum use was made of all available information gathered from several studies which have been made in the southeastern Virginia area. These studies included:

- (1) "A Preliminary Highway Study of the Route 58 Traffic Corridor from Norfolk to Virginia Beach" prepared by the Virginia Department of Highways, December, 1959.
- (2) "A Supplemental Preliminary Study -- Future Highway Needs for the Route 58 Corridor" prepared by the Virginia

Department of Highways, February, 1962.

- (3) "Proposed Norfolk-Londonbridge Toll Road" prepared for the Virginia Department of Highways by Wilbur Smith and Associates, December, 1962.
- (4) "Traffic, Revenues and Engineering -- Proposed Norfolk-Virginia Beach Toll Road" prepared for the Virginia Department of Highways by Wilbur Smith and Associates, February, 1963.
- (5) "Southeastern Virginia Regional Transportation Study" Volumes I and II, prepared for the Virginia Department of Highways by Wilbur Smith and Associates, 1965.

# CHAPTER

# 2

## AREA GROWTHS

An indication of the economic activity in the area served by the proposed Norfolk-Virginia Beach Toll Road was obtained by analyzing population growths and various economic indices. In addition, motor vehicle registrations and motor fuel consumption, both excellent indicators of travel growth, were analyzed.

For comparative purposes, a study area comprised of the independent cities of Chesapeake, Norfolk, Portsmouth and Virginia Beach was delineated.<sup>1</sup> While the proposed toll road will traverse only Norfolk and Virginia Beach,

Chesapeake and Portsmouth were also included since they will, of course, be directly influenced by the proposed facility.

### Population

Between 1940 and 1950, the population of the study area increased an average of 5.6 per cent annually. During the succeeding ten year period, population increased an average of 2.5 per cent per year to a total population in 1960 of 577,504 persons. An annual growth of 2.6 per cent occurred between 1960 and 1964.

As shown in Table 2, these growths were above those realized statewide and also for the nation. Between 1960 and 1964, Virginia recorded an average annual population increase

<sup>1</sup> The City of South Norfolk merged with Norfolk County to create the new municipality of Chesapeake in 1963. The City of Virginia Beach merged with Princess Anne County to create the new municipality of Virginia Beach in 1963.

TABLE 2  
POPULATION TRENDS

AREA	1940	AVERAGE ANNUAL PER CENT CHANGE	1950	AVERAGE ANNUAL PER CENT CHANGE	1960	AVERAGE ANNUAL PER CENT CHANGE	1964
<b>Cities:</b>							
Chesapeake <sup>1</sup> . . .	43,866	9.7	110,371	-2.9	73,647	3.6	85,704
Norfolk . . . . .	144,332	4.0	213,513	3.6	304,869	0.8	315,032
Portsmouth . . . .	50,745	4.7	80,039	3.7	114,773	0.9	119,203
Virginia Beach <sup>2</sup> .	22,584	7.7	47,667	5.9	84,215	8.5	116,746
Four-City Total . .	261,527	5.6	451,590	2.5	577,504	2.6	636,685
<b>States:</b>							
Maryland . . . . .	1,821,244	2.6	2,343,001	2.8	3,100,689	2.6	3,432,000
North Carolina . .	3,571,623	1.3	4,061,929	1.2	4,556,155	1.6	4,852,000
VIRGINIA . . . . .	2,677,773	2.2	3,318,680	1.8	3,966,949	2.5	4,378,000
West Virginia . . .	1,901,974	0.5	2,005,552	-0.7	1,860,421	-0.8	1,797,000
United States <sup>3</sup> . . .	131,669,275	1.4	150,697,361	1.7	178,464,236	1.8	191,334,000

Source: U. S. Department of Commerce, Bureau of the Census. The 1964 population estimates for the four-city area were prepared by the University of Virginia, Bureau of Population and Economic Research.

<sup>1</sup> The City of South Norfolk merged with Norfolk County to create the new municipality of Chesapeake in 1963.

<sup>2</sup> The City of Virginia Beach merged with Princess Anne County to create the new municipality of Virginia Beach in 1963.

<sup>3</sup> Does not include Alaska and Hawaii.



of 2.5 per cent. This compared with average annual growths of 2.6 per cent in Maryland, 1.6 per cent in North Carolina, a decrease of 0.8 per cent in West Virginia and an increase of 1.8 per cent nationwide.

**Retail Sales**

Continued growths in retail sales have occurred in the four-city study area between 1954 and 1964. In 1954, total sales of \$482,443,000 were recorded in the study area. This increased to \$589,193,000 in 1959 and to \$738,031,000 in 1964. An average annual growth of 4.6 per cent was realized between 1959 and 1964. This compared with average annual increases of 5.1 per cent statewide and 5.6 per cent in Maryland. As shown in Table 3, the average annual growth during this same period in North Carolina was 4.5 per cent; a growth of 2.1 per cent

was recorded in West Virginia while the nation experienced a growth of 3.7 per cent.

**Average Effective Buying Income Per Family**

In 1964, the average effective buying income per family in the study area amounted to \$7,423. As shown in Table 4, this was above the statewide average and higher than the income levels in North Carolina and West Virginia.

Between 1959 and 1964, an average annual growth in average effective buying income per family in the study area of 1.9 per cent was realized. This compared with annual growths of 3.5 per cent statewide, 5.4 per cent in Maryland, 4.1 per cent in North Carolina, 2.8 per cent in West Virginia, and 3.3 per cent for the nation. During the preceding five-year

TABLE 3  
RETAIL SALES TRENDS

AREA	1954	AVERAGE ANNUAL PER CENT CHANGE	1959	AVERAGE ANNUAL PER CENT CHANGE	1964
(thousands of dollars)					
Cities:					
Chesapeake <sup>1</sup> .....	\$ 46,912	-3.4	\$ 38,421	7.0	\$ 53,778
Norfolk .....	314,694	4.4	390,854	2.5	441,866
Portsmouth .....	89,947	5.1	115,548	3.5	137,350
Virginia Beach <sup>2</sup> .....	30,890	7.5	44,370	18.8	105,037
Four-City Total .....	\$ 482,443	4.1	\$ 589,193	4.6	\$ 738,031
States:					
Maryland .....	\$ 2,577,240	6.6	\$ 3,542,261	5.6	\$ 4,646,528
North Carolina .....	3,000,214	7.2	4,253,514	4.5	5,308,302
VIRGINIA .....	2,950,595	6.3	4,001,646	5.1	5,137,396
West Virginia .....	1,458,295	2.6	1,661,754	2.1	1,845,601
United States <sup>3</sup> .....	\$170,034,796	4.8	\$215,428,410	3.7	\$258,478,369

Source: Sales Management, "Survey of Buying Power."

<sup>1</sup> The City of South Norfolk merged with Norfolk County to create the new municipality of Chesapeake in 1963.

<sup>2</sup> The City of Virginia Beach merged with Princess Anne County to create the new municipality of Virginia Beach in 1963.

<sup>3</sup> Does not include Alaska and Hawaii.

TABLE 4  
TRENDS IN AVERAGE EFFECTIVE BUYING INCOME PER HOUSEHOLD

AREA	1954	AVERAGE ANNUAL PER CENT CHANGE	1959	AVERAGE ANNUAL PER CENT CHANGE	1964
<b>Cities:</b>					
Chesapeake <sup>1</sup> .....	N.A.	—	N.A.	—	\$6,346
Norfolk .....	\$6,146	2.6	\$6,987	1.3	7,447
Portsmouth .....	5,327	2.8	6,131	0.5	6,283
Virginia Beach <sup>2</sup> .....	5,711	4.2	7,032	2.2	7,844
Four-City Average .....	\$5,657	3.6	\$6,738	1.9	\$7,423
<b>States:</b>					
Maryland .....	\$5,973	5.1	\$6,878	5.4	\$8,957
North Carolina .....	4,237	4.5	5,276	4.1	6,444
VIRGINIA .....	5,059	3.5	6,000	3.5	7,137
West Virginia .....	4,549	3.9	5,501	2.8	6,334
United States .....	\$5,274	3.9	\$6,385	3.3	\$7,542

Source: Sales Management, "Survey of Buying Power."

N.A. = Not Available.

<sup>1</sup> The City of South Norfolk merged with Norfolk County to create the new municipality of Chesapeake in 1963.

<sup>2</sup> The City of Virginia Beach merged with Princess Anne County to create the new municipality of Virginia Beach in 1963.

period, 1954-59, the average annual growth in effective buying income per family in the study area of 3.6 per cent was above the growth recorded statewide.

### Motor Vehicle Registrations

Good growths in motor vehicle registrations have occurred in southeastern Virginia between 1954 and 1964. As shown in Table 5, motor

vehicle registrations increased from 134,900 in 1954 to 163,200 in 1959, an annual growth of 3.9 per cent. Between 1959 and 1964, an average annual increase of 7.2 per cent was realized.

The annual growth of 4.3 per cent recorded in Virginia during the period 1959-64 was greater than the average annual increase of 2.3 per cent for West Virginia and 3.8 per cent for the nation.

TABLE 5  
MOTOR VEHICLE REGISTRATION TRENDS

AREA	1954	AVERAGE ANNUAL PER CENT CHANGE	1959	AVERAGE ANNUAL PER CENT CHANGE	1964
Southeastern Virginia <sup>1</sup> .....	134,900	3.9	163,200	7.2	230,496
Maryland .....	871,005	4.8	1,102,258	4.8	1,394,475
North Carolina .....	1,304,252	4.7	1,640,810	4.3	2,030,628
VIRGINIA .....	1,153,113	3.8	1,387,100	4.3	1,707,076
West Virginia .....	513,409	2.8	589,683	2.3	660,306
United States <sup>2</sup> .....	58,589,863	4.0	71,211,868	3.8	85,906,246

Source: Highway Statistics, U. S. Department of Commerce, Bureau of Public Roads, *Basic Data for Planning*, Southeastern Virginia Regional Planning Commission, 1962; Division of Motor Vehicles, Commonwealth of Virginia.

<sup>1</sup> Includes Cities of Chesapeake, Norfolk, Portsmouth, Suffolk and Virginia Beach, and Nansemond County.

<sup>2</sup> Does not include Alaska or Hawaii.

**Motor Fuel Consumption**

Motor fuel consumption trends in Virginia, adjacent states and the nation are shown in Table 6. Between 1954 and 1959, motor fuel consumption in Virginia increased at an average annual rate of 5.9 per cent which was higher than the growths in adjacent states and

for the nation.

Between 1959 and 1964, motor fuel consumption in Virginia increased at an average annual rate of 2.4 per cent compared with growths of 4.6 per cent in Maryland, 3.7 per cent in North Carolina, 1.7 per cent in West Virginia and 2.8 per cent for the nation.

TABLE 6  
TRENDS IN MOTOR FUEL CONSUMPTION

AREA	1954	AVERAGE ANNUAL PER CENT CHANGE	1959	AVERAGE ANNUAL PER CENT CHANGE	1964
		(thousands of gallons)			
Maryland	709,360	5.5	927,703	4.6	1,162,056
North Carolina	1,173,638	5.2	1,515,897	3.7	1,816,478
VIRGINIA	1,023,726	5.9	1,363,648	2.4	1,535,767
West Virginia	429,443	3.6	513,099	1.7	559,380
United States <sup>1</sup>	49,635,649	4.5	61,960,717	2.8	71,278,349

Sources: Highway Statistics, U. S. Department of Commerce, Bureau of Public Roads.

<sup>1</sup> Does not include Alaska and Hawaii.

**Downtown Virginia Beach**

The area between Norfolk and downtown Virginia Beach is rapidly undergoing commercial and residential development. Downtown Virginia Beach, which is primarily a residential-recreational area, comprises an area of approximately 2.0 square miles and is located on the Atlantic Ocean. It boasts several miles of beautiful beach front. It had a permanent population of 8,097 persons in 1960. During the tourist season, the number of people in this resort area is many times this number.

There are approximately 3,300 rooms available in hotels, motels and rooming houses in the downtown Virginia Beach area and an estimated 90 dining facilities, including those located in hotels and drug stores. On a peak day during the tourist season, which normally occurs around the Fourth of July, an estimated 80,000 tourists visit the downtown Virginia Beach area. By comparing this with the estimated permanent population of about 8,000 persons in this same area, some indication of

peak traffic loads which occur during the tourist season can be determined.

Several indices relating to growth in commercial and tourist development in downtown Virginia Beach have been analyzed. These include trends in amusement, restaurant and hotel tax revenues.

*Amusement Tax* — The amusement tax is a five per cent levy on all establishments which have an admission charge. These include movies, dance halls, and rides; however, no tax is charged for ride tickets sold to children under 12 years of age.

Annual trends in amusement tax revenues during the period 1954 to 1964 are given in Table 7. In 1954, total revenues amounted to \$15,799. This increased to \$23,565 in 1964, an average annual growth of 4.1 per cent. During the last five years, 1959-64, an average annual growth of 8.2 per cent occurred.

*Restaurant and Hotel Tax* — Hotel tax revenues are collected from hotels, motels, and rooming houses. The tax amounts to three per

TABLE 7  
AMUSEMENT TAX REVENUE TRENDS  
Downtown Virginia Beach

YEAR ENDING JUNE 30	AMUSEMENT TAX REVENUE	CHANGE OVER PREVIOUS YEAR
1954 .....	\$15,799	2.6
1955 .....	15,843	0.3
1956 .....	14,394	-9.2
1957 .....	15,615	8.5
1958 .....	16,311	4.5
1959 .....	15,850	-2.8
1960 .....	17,491	10.4
1961 .....	15,680	-10.4
1962 .....	21,705	38.4
1963 .....	18,233	-16.0
1964 <sup>1</sup> .....	23,565	29.2
<i>AVERAGE ANNUAL GROWTH (Compounded):</i>		
1954-1964 .....		4.1
1959-1964 .....		8.2

Source: Commissioner of Revenue and Finance Department, Virginia Beach, Virginia.

<sup>1</sup> Revenues during May and June, 1964 include monies received from total area within new corporate limits of Virginia Beach.

cent of all room and food charges incurred. Where a restaurant is located in a hotel the three per cent tax normally charged restaurants would be collected as hotel tax. The restaurant tax is a three per cent levy collected from restaurants, drug stores, and all other establishments which sell prepared food.

Excellent growths have occurred in revenues derived from restaurant and hotel tax in downtown Virginia Beach during the period 1954-1964. As shown in Table 8, restaurant tax revenues have increased at an average annual rate of 10.0 per cent during the last 10 years while hotel tax revenues have experienced an annual growth of 4.9 per cent. During the last five years, 1959-1964, restaurant tax revenues and hotel tax revenues increased 7.7 and 5.7 per cent per year, respectively.

#### **In Retrospect**

Population in the four-city study area increased at an average annual rate of 2.5 per cent between 1950-1960 and 2.6 per cent between 1960 and 1964, which was in excess of

the growth recorded statewide and for the nation. In 1964, the level of average effective buying income per family in the study area was above the statewide average.

Between 1959 and 1964, motor vehicle registrations in southeastern Virginia increased an average of 7.2 per cent annually. Motor fuel consumption in Virginia increased 2.4 per cent per year during this same period.

Revenues collected from amusement, restaurant and hotel taxes in downtown Virginia Beach have increased greatly during the past ten years. Between 1959-1964, amusement tax revenues increased an average of 8.2 per cent annually, restaurant tax revenues - - 7.7 per cent, and hotel tax revenues - - 5.7 per cent.

These studies indicate that the economy of the southeastern Virginia area has experienced good growth during the past several years. The completion of the Chesapeake Bay Bridge-Tunnel has served to further stimulate economic activity in the Norfolk-Virginia Beach area. Continued growths in population and tourist activity in the area will, in turn, increase the need for improved highway facilities.

**TABLE 8**  
**TRENDS IN RESTAURANT AND HOTEL TAX REVENUES**  
**Downtown Virginia Beach**

<u>YEAR ENDING JUNE 30</u>	<u>RESTAURANT TAX REVENUES</u>		<u>HOTEL TAX REVENUE</u>	
	<u>AMOUNT</u>	<u>ANNUAL PER CENT CHANGE</u>	<u>AMOUNT</u>	<u>ANNUAL PER CENT CHANGE</u>
1954.....	\$28,781		\$ 81,711	
1955.....	27,465	-4.6	92,899	13.7
1956.....	25,334	-7.8	79,344	-14.6
1957.....	30,956	22.2	117,416	48.0
1958.....	45,646	47.5	110,647	-5.8
1959.....	51,909	13.7	100,101	-9.5
1960.....	44,963	-13.4	113,287	13.2
1961.....	46,146	2.6	110,230	-2.7
1962.....	58,449	26.7	111,853	1.5
1963.....	61,664	5.5	104,135	-6.9
1964 <sup>1</sup> .....	75,051	21.7	131,881	26.6
<i>AVERAGE ANNUAL GROWTH (Compounded):</i>				
1954-1964.....		10.0		4.9
1959-1964.....		7.7		5.7

Source: Commissioner of Revenue and Finance Department, Virginia Beach, Virginia.

<sup>1</sup> Revenues during May and June, 1964 include monies received from total area within new corporate limits of Virginia Beach.

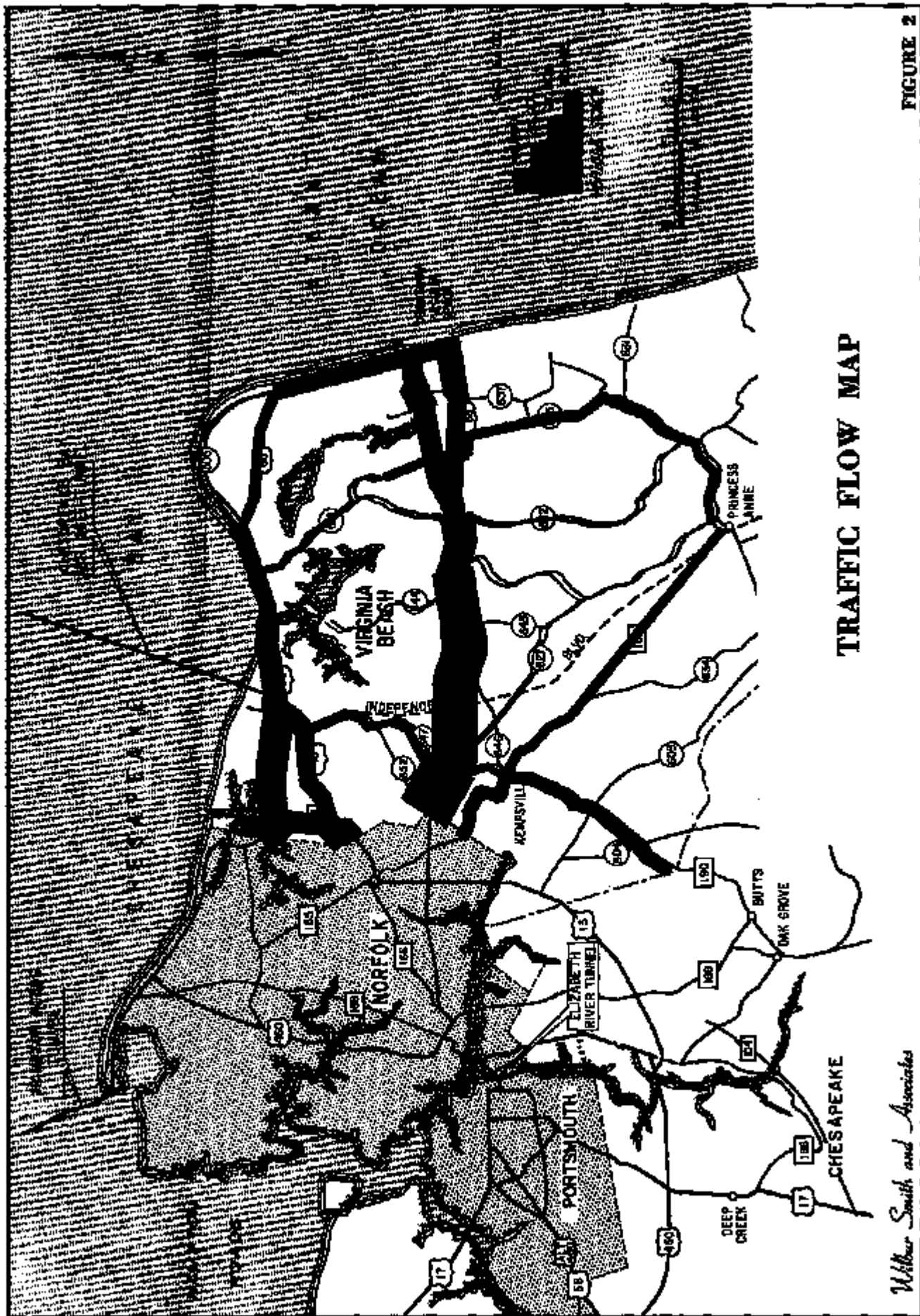


FIGURE 2

TRAFFIC FLOW MAP

*Wilbur Smith and Associates*

# CHAPTER

# 3

## TRAFFIC STUDIES

Numerous studies were made to determine present usage and traffic characteristics in the travel corridor of the proposed toll road. These studies included analyses of present travel patterns, magnitude and composition of traffic and quality of traffic services provided by existing routes.

Origin and destination roadside interviews were obtained at five locations during two different seasons in 1962. In 1965, additional origin and destination data were collected during March and April. Vehicle classification counts, coupled with automatic machine volume counts were made to determine the magnitude and composition of traffic. Route inventory studies and speed-delay observations were made on all major highways and roads within the area of the proposed facility to determine adequacy of traffic services afforded. All available statistical information relating to traffic trends and volumes on the highways in the area were evaluated.

### Existing Highway System

The two major east-west highways now serving motorists in the area between Norfolk and downtown Virginia Beach are U. S. Routes 58 and 60. Of the two highways, U. S. Route 58 is the more direct and heavily traveled route with an annual average daily traffic level of 27,400 vehicles in 1964 between the east city limits of Norfolk and U. S. Route 58 Business. At the junction with U. S. Route 58 Business, U. S. Route 58 continues in a northeasterly direction, terminating in the northern section of downtown Virginia Beach. U. S. Route 58 Business is an alternate routing and connects U. S. Route 58, west of downtown Virginia Beach, with the central business district of Virginia Beach. Approximately 10,300 vehicles were

measured on U. S. Route 60, between Lynnhaven Inlet and State Route 305 on an annual average day in 1964.

U. S. Routes 13 and 60 (the latter highway follows a north-south orientation between Fort Story and downtown Virginia Beach) are the only main north-south routes in the area between Norfolk and downtown Virginia Beach. The remainder of the existing north-south roads primarily serve local traffic and act as feeder routes to the two main east-west highways.

### Present Traffic Volumes

Extensive data on traffic volumes have been collected by the Virginia State Highway Department and were supplemented by recent traffic counts made at each of the highway interview stations. These counts were adjusted to represent 1963 annual average daily traffic and are shown in Figure 2. The Highway Department no longer makes traffic counts in the Norfolk-Virginia Beach area; the 1963 volumes are the latest counts available.

The heaviest traffic volumes were on U.S. Route 58 and ranged from a high of 33,000 daily vehicles at the city limits of Norfolk to a low of about 20,500 vehicles, west of Secondary Route 632. In the area immediately west of downtown Virginia Beach, the volumes on U. S. Route 58 and U. S. Route 58 Business were 16,000 and 15,000 vehicles, respectively.

East-west traffic volumes on U. S. Route 60 amounted to 24,900 vehicles east of Norfolk and about 9,000 vehicles just north of downtown Virginia Beach. The 1963 daily volume at the U. S. Route 60 crossing of Lynnhaven Inlet was 9,600 vehicles.

The volume of traffic on State Route 165 was about 6,900 vehicles east of Norfolk and 5,000 vehicles, southeast of Kempsville. On State Route 190, volumes of about 7,400 ve-

hicles daily were recorded south of Kempsville. State Route 166 and U. S. Route 13, south of U. S. Route 60, were also heavily used with daily volumes of approximately 10,000 vehicles.

**Area Traffic Trends**

Annual, seasonal and daily traffic variations on U. S. Routes 58 and 60 were assumed to be indicative of fluctuations in the east-west travel corridor between Norfolk and downtown Virginia Beach. In addition, seasonal variations on U. S. Routes 29 and 301 were evaluated.

Substantial growths in traffic have occurred on U. S. Routes 58 and 60 during the last six years. As shown in Table 9, traffic on U. S. Route 58, at the intersection with U. S. Route 58 Business, has increased at an average annual rate of 6.7 per cent, from 19,860 vehicles in 1959 to 27,400 on an average day in 1964.

TABLE 9  
ANNUAL TRAFFIC TRENDS  
1959-1964  
Annual Average Daily Traffic

FISCAL YEAR ENDED JUNE 30	U. S. ROUTE 58 <sup>1</sup>	PER CENT IN-CREASE	U. S. ROUTE 60 <sup>2</sup>	PER CENT IN-CREASE
1959	19,860	8.7	7,369	5.8
1960	21,593	—	7,796	3.9
1961	21,593	13.2	8,100	4.7
1962	24,435	6.3	8,480	13.3
1963	25,985	5.4	9,605	7.2
1964 <sup>3</sup>	27,400		10,300	
<b>AVERAGE ANNUAL GROWTH (Compounded)</b>				
1959-1964		6.7		6.9

Source: Virginia Department of Highways.

<sup>1</sup> Weighted average of counts taken at the intersection of U. S. Routes 58 and 58 Business.

<sup>2</sup> Weighted average of counts taken at crossing of Lynnhaven Bay Inlet and the intersection of U. S. Route 60 and State Route 305.

<sup>3</sup> Estimated by Wilbur Smith and Associates.

A similar growth has occurred on U. S. Route 60, between Lynnhaven Inlet and State Route 305. Traffic has increased from 7,369 vehicles per day in 1959 to 10,300 in 1964 — an average annual growth of 6.9 per cent.

*Seasonal Traffic Variations* — Monthly traffic variations on U. S. Route 60, east of Richmond; on U. S. Route 29, south of Lynnhaven; and on U. S. Route 301, south of U. S. Route 17, are given in Table 10. Permanent traffic recorders are maintained by the Virginia Department of Highways at each of these locations. The Highway Department does not maintain permanent traffic recorders on U. S. Routes 58 and 60 between Norfolk and downtown Virginia Beach.

Monthly variations on U. S. Routes 60 and 29 follow much the same pattern with peak usage occurring during the summer period. On U. S. Route 60, August traffic was 13 per cent above the average month with October the low month of usage — 12 per cent below average. On U. S. Route 29, peak usage occurred in July, about 11 per cent above the average month, with January the low traffic month, 15 per cent below average.

Monthly variations on U. S. Route 301 were much more seasonal with volumes 30 and 22 per cent above the average month during July and August, respectively. The low traffic month at this location was October, 19 per cent below the average month.

*Daily Traffic Variations* — Daily variations on U. S. Route 58, east of Secondary Route 645 and on U. S. Route 60, west of Secondary Route 615, during May and July, 1962; March, 1964; and April, 1965 are shown in Table 11. The values given are based upon automatic machine volume counts made at each location for a period of at least one week. The counts were obtained in both directions of travel and for a continuous 24-hour period each day.

The relative importance of weekend usage at the two count locations can readily be seen. On U. S. Route 58, during May, 1962, traffic on Friday and Saturday was 13 and 15 per cent above the average day, respectively. In July, 1962, Friday, Saturday and Sunday were



all above average days with usage reaching a maximum level on Friday — 11 per cent above average. During March, 1964 and April, 1965,

Thursday, Friday and Saturday were above average days with maximum volumes experienced on Friday and Saturday.

TABLE 10  
SEASONAL TRAFFIC VARIATIONS <sup>1</sup>

MONTH	Per Cent of Average Month		
	U. S. ROUTE 60, EAST OF RICHMOND	U. S. ROUTE 29, SOUTH OF LYNCHBURG	U. S. ROUTE 301, SOUTH OF U. S. ROUTE 17
January .....	105	85	90
February .....	98	89	94
March .....	96	99	101
April .....	99	108	100
May .....	100	102	104
June .....	98	106	114
July .....	108	111	130
August .....	113	105	122
September .....	100	102	87
October .....	88	101	81
November .....	99	96	86
December .....	96	96	91
Average Month ...	100	100	100

Source: Virginia Department of Highways.

<sup>1</sup> Based on traffic trends during fiscal years 1962-63 and 1963-64.

TABLE 11  
DAILY TRAFFIC VARIATIONS

DAY	Per Cent of Average Day							
	U. S. ROUTE 58, EAST OF SECONDARY ROUTE 645				U. S. ROUTE 60, WEST OF SECONDARY ROUTE 615			
	1962		1964		1965		1965	
	MAY	JULY	MARCH	APRIL	MAY	JULY	MARCH	APRIL
Sunday .....	96	101	89	85	126	132	119	107
Monday .....	96	98	94	96	85	85	86	95
Tuesday .....	92	94	95	92	80	85	91	88
Wednesday .....	94	93	97	98	92	90	94	94
Thursday .....	94	97	103	103	88	90	106	98
Friday .....	113	111	112	113	106	101	108	111
Saturday .....	115	106	109	113	123	117	96	107
Average Day .....	100	100	100	100	100	100	100	100

Source: Virginia Department of Highways.

Much more pronounced weekend usage was indicated on U. S. Route 60. During May, 1962, Sunday was the peak traffic day approximately 26 per cent above the average day followed by Saturday and Friday, 23 and 6 per cent above average, respectively. An even higher level of usage occurred on Sunday during July, 1962, 32 per cent above the average day followed by Saturday and Friday, 17 and 1 per cent above average, respectively.

Weekend usage dropped substantially during March, 1964, with Sunday 19 per cent above the average day and Saturday, a below average day. Friday was the peak traffic day during April, 1965, with volumes 11 per cent above the average day. Volumes on Saturday and Sunday were seven per cent above the average day.

#### **Origin and Destination Studies**

Origin and destination roadside interview studies were made at four locations on U. S. Route 58 and at one location on U. S. Route 60 by the Virginia Department of Highways during May and July, 1962. Origin and destination surveys were also conducted during March and April, 1965 at two of the key survey stations. The purpose of these studies was to determine the travel patterns of motorists in the corridor of the proposed toll road. The location of the survey stations is shown in Figure 3.

During the interview period, motorists in both directions of travel were stopped and questioned as to trip origin and destination. In addition, vehicle type, state of registration (local or out-of-state), direction of travel and hour of interview were recorded. The number of motorists interviewed represented a high percentage of the total traffic, although drivers were, at no time, subjected to undue delays.

The location, date, day, and number of interviews obtained at each of the survey stations are shown in Table 12. In 1962, interviews were obtained for a continuous 24-hour period on both weekends and weekdays at each sta-

tion. The two stations operated in 1965 were conducted during daylight hours only. Of the 651,160 vehicles passing the five survey stations during the interview periods, 276,693 or 42 per cent were interviewed.

#### **Vehicle Classification Counts**

Vehicle classification counts were made at each of the survey stations for a continuous 24-hour period which coincided with the period of interview during May and July, 1962 and March and April, 1965. Additional classification counts were made at all stations during March, 1964. Traffic was classified by hour, direction and vehicle type. Vehicle classifications included passenger cars and five truck categories. Trucks were subdivided into two-axle, four-tire; two-axle, six-tire; three-axle, four-tire; and five-axle vehicles. The vehicle classification counts made at each of the survey stations in 1962 and 1965 by the Virginia Department of Highways and the counts obtained during March, 1964 are summarized in Table 13.

Passenger cars represented a very high proportion of total traffic at each location, although the actual percentage varied somewhat depending upon the day of the week and the period of the year the count was made. For example, passenger cars at Station 2 (U. S. Route 58, east of Secondary Route 645) represented about 98 per cent of all traffic on both a Sunday in May and in July, 1962. The percentage of passenger cars at this location decreased to about 86 per cent on a weekday in May, 1962, March, 1964 and April, 1965.

The number of heavy trucks measured at the survey stations varied considerably depending upon the day of the week. A total of 592 three or more axle vehicles were recorded on a Thursday in May, 1962, at Station 2, with volumes well over 500 also measured on weekdays at Stations 3 (U. S. Route 58, east of Secondary Route 647) and 4 (U. S. Route 58, east of State Route 165). The largest number of heavy trucks recorded on U. S. Route 60 was 333 on a Thursday in July, 1962. A maxi-

TABLE 12  
LOCATION AND OPERATION OF SURVEY STATIONS  
1962 and 1965

<u>STATION</u>	<u>ROUTE</u>	<u>LOCATION</u>	<u>DATE</u>	<u>DAY</u>	<u>NUMBER OF INTERVIEWS</u>
1	U. S. 58	East of Secondary Route 632	5/20/62	Sun.	8,579
			5/9/62	Wed.	8,481
			7/10/62	Tue.	11,453
			7/27/62	Fri.	11,174
2	U. S. 58	East of Secondary Route 645	5/13/62	Sun.	9,136
			5/14/62	Mon.	11,688
			5/10/62	Thr.	9,394
			5/11/62	Fri.	11,133
			7/8/62	Sun.	9,483
			7/9/62	Mon.	9,806
			7/12/62	Thr.	9,993
			7/13/62	Fri.	10,834
			4/1/65	Thr.	4,828
3	U. S. 58	East of Secondary Route 647	5/6/62	Sun.	9,590
			5/16/62	Wed.	10,807
			7/17/62	Tue.	10,235
			7/26/62	Thr.	12,195
4	U. S. 58	East of State Route 165	5/27/62	Sun.	8,464
			5/23/62	Wed.	9,575
			7/23/62	Mon.	10,983
			7/24/62	Tue.	11,905
5	U. S. 60	West of Secondary Route 615	5/20/62	Sun.	6,145
			5/21/62	Mon.	6,807
			5/17/62	Thr.	6,768
			5/18/62	Fri.	8,120
			7/15/62	Sun.	8,290
			7/16/62	Mon.	6,967
			7/19/62	Thr.	10,025
			7/20/62	Fri.	10,400
			3/31/65	Wed.	3,235
Total Interviews					276,693

num of 93 and 146 heavy trucks were observed at Stations 2 and 5 on a Sunday in July, 1962, respectively.

A good correlation between the vehicle classification counts made during May, 1962 and March, 1964 was found at most of the survey stations. For example, at Station 1 on a Wednesday in May, 1962, a total of 13,280 automobiles, 1,345 pickup and panel trucks, 851 two-axle, six-tire, and 382 three or more axle vehicles were counted, an aggregate of 17,858. On a Wednesday in March, 1964, 15,981 automobiles, 1,478 pickup and panel

trucks, 894 two-axle, six-tire vehicles, and 314 three or more axle vehicles for a total of 18,667 vehicles were recorded.

A comparison of the counts conducted during March, 1964 and April, 1965 indicates a similar vehicle class distribution although the volumes observed in 1965 were significantly larger. At Station 2, 86 per cent of the total traffic in March, 1964 were passenger cars as compared with 85 per cent in April, 1965. Three or more axle trucks constituted 1.7 and 2.0 per cent of the total traffic in March, 1964 and April, 1965, respectively.

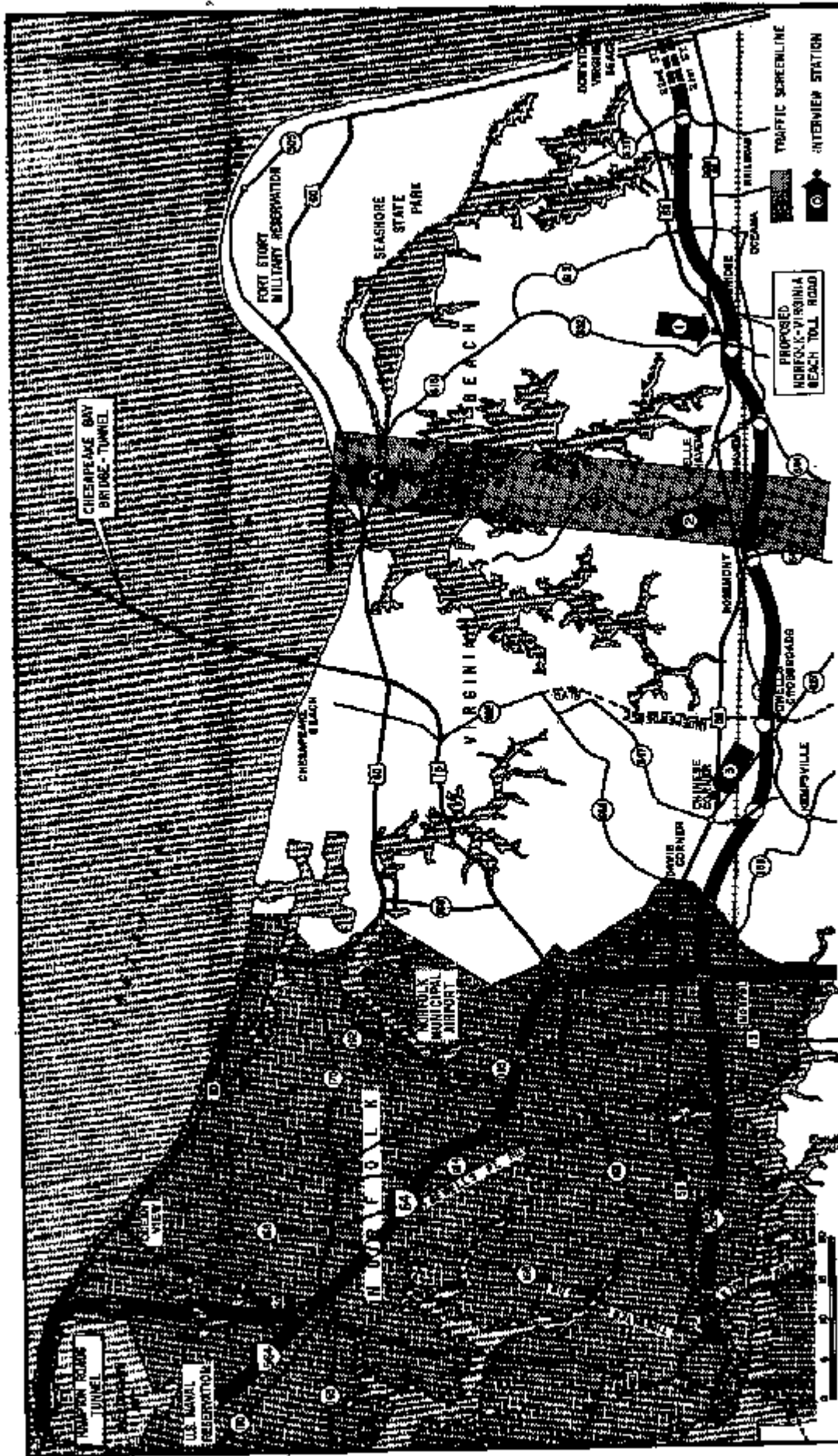


FIGURE 8

LOCATION MAP

*Wilbur Smith and Associates*

TABLE 13  
VEHICLE CLASSIFICATION COUNTS

STATION <sup>1</sup>	DAY	DATE	PASSENGER CARS	PANEL & PICKUP	TRUCKS		TOTAL
					2-AXLE 6-TIRE	3 OR MORE AXLES	
1	Sunday	May 1962	23,129	407	87	86	23,709
	Wednesday	May 1962	15,280	1,345	851	382	17,858
	Tuesday	July 1962	21,027	1,193	908	294	23,422
	Friday	July 1962	21,488	1,063	1,010	301	23,862
	Wednesday	March 1964	15,981	1,478	894	314	18,667
2	Sunday	May 1962	20,797	348	74	67	21,286
	Monday	May 1962	18,778	1,723	947	512	21,960
	Thursday	May 1962	20,100	1,759	1,024	592	23,475
	Friday	May 1962	20,692	1,825	1,071	459	24,047
	Sunday	July 1962	27,680	485	90	93	28,348
	Monday	July 1962	23,250	1,255	1,076	307	25,888
	Thursday	July 1962	21,527	1,350	1,390	399	24,666
	Friday	July 1962	24,060	1,579	1,067	308	27,014
	Tuesday	March 1964	17,621	1,519	1,028	350	20,518
	Thursday	April 1965	23,763	2,274	1,218	547	27,802
3	Sunday	May 1962	22,229	314	98	59	22,700
	Wednesday	May 1962	22,189	1,718	988	554	25,449
	Tuesday	July 1962	25,060	1,686	1,269	368	28,383
	Thursday	July 1962	24,381	1,584	1,265	421	27,651
	Wednesday	March 1964	19,402	1,656	840	418	22,316
4	Sunday	May 1962	24,580	500	115	109	25,304
	Wednesday	May 1962	27,265	2,097	1,338	512	31,212
	Monday	July 1962	28,151	1,876	1,327	513	31,867
	Tuesday	July 1962	28,425	1,809	1,396	435	32,065
	Tuesday	March 1964	24,489	2,092	953	438	27,972
5	Sunday	May 1962	15,137	188	40	56	15,421
	Monday	May 1962	9,027	545	266	193	10,031
	Thursday	May 1962	9,320	557	317	176	10,370
	Friday	May 1962	10,805	612	370	209	11,996
	Sunday	July 1962	20,450	235	98	146	20,929
	Monday	July 1962	11,829	473	308	160	12,770
	Thursday	July 1962	13,581	614	351	333	14,879
	Friday	July 1962	14,406	574	373	260	15,613
	Wednesday	March 1964	8,123	664	313	134	9,234
	Wednesday	March 1965	12,269	795	333	245	13,642

<sup>1</sup> See Table 12 for station locations.

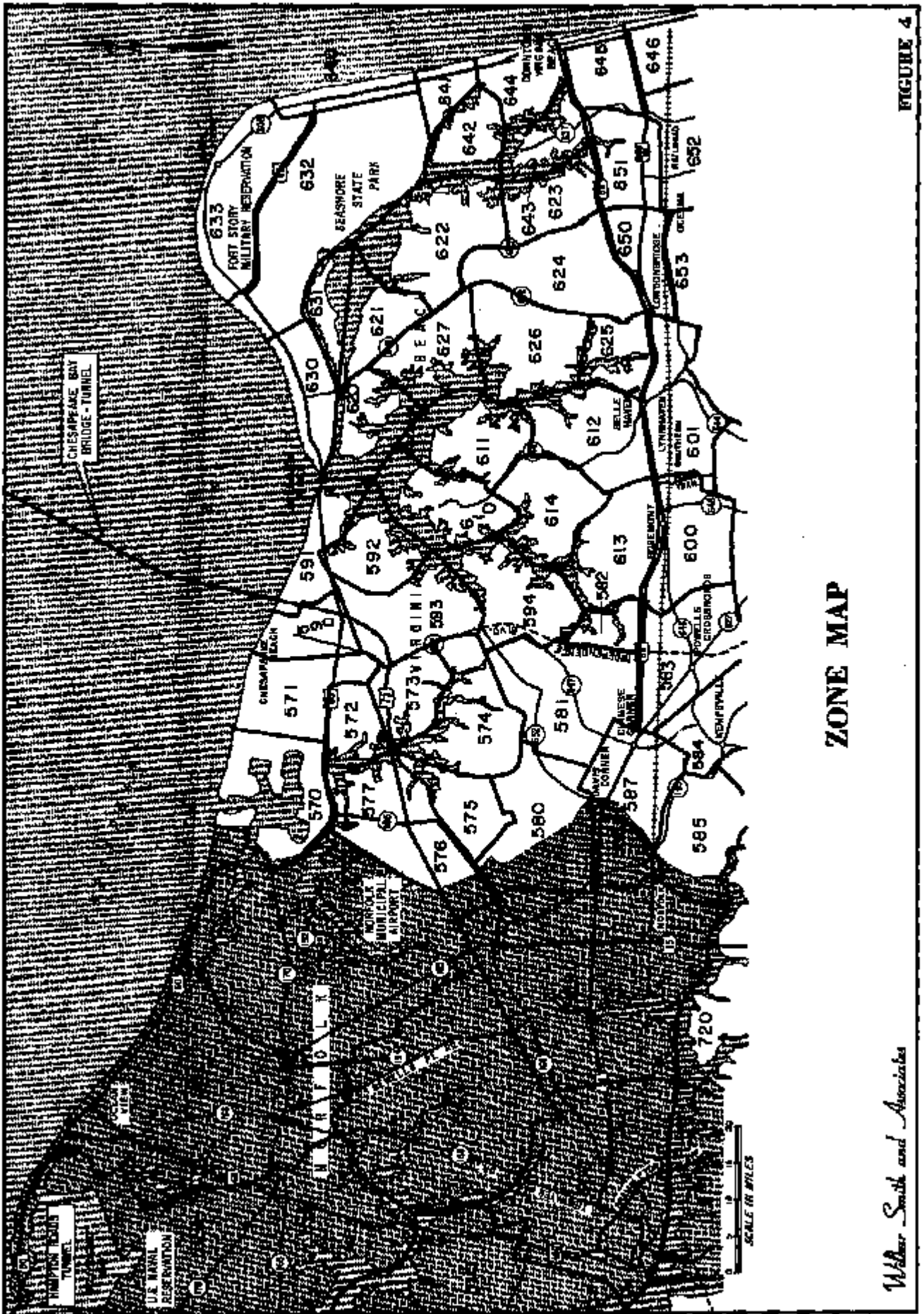
Passenger cars at Station 5 represented 88 per cent of the total traffic in March, 1964 as compared with 90 per cent in March, 1965. Heavy trucks with three or more axles, accounted for 1.5 and 1.8 per cent of the total traffic count in March, 1964 and 1965, respectively.

#### Origin and Destination Zones

Southeastern Virginia was divided into a

series of geographic zones to which the origin and destination data were numerically coded. The zones are depicted in Figure 4.

Along the proposed toll road, more detailed zoning was used so that potential movements could be more accurately assigned to the proposed facility. Beyond the Norfolk-Virginia Beach area, a series of peripheral zones were delineated along traffic corridors or combinations of highways as they converge on Tidewater Virginia.



**ZONE MAP**

*Walker Smith and Associates*

**FIGURE 4**

### Development of Travel Desires

The origin and destination information, together with the day of interview, hour of interview, vehicle class and state of registration, was then transposed to statistical tabulating cards. Using the vehicle classification counts, machine volume counts and the seasonal and daily traffic variations in the travel corridor, 1962 average daily traffic volumes were determined, by vehicle class, for each survey station by season of the year. In this manner, the May and July interviews for each class of vehicles were properly weighted and adjustments made for seasonal traffic variations.

### Annual Average Daily Traffic at Survey Stations

Estimated 1962 annual average daily traffic and the May and July average daily traffic volumes for each interview survey station are presented in Table 14. Station 4, located east of State Route 165, was the heaviest volume station with an estimated 30,700 vehicles per day in 1962. The station on U. S. Route 60 was the lowest volume location, 11,200 vehicles on an average day in 1962.

Distinct seasonal variations were noted at Stations 1 and 5. At Station 1, the average daily traffic (ADT) in May was 108 per cent of the annual average daily traffic (AADT) as

compared with 136 per cent in July. The May and July ADT at Station 5 was 105 and 141 per cent, respectively, of the AADT.

### Travel Desires

The May and July, 1962 travel desires of vehicles considered wholly or partially potential to the proposed toll road are illustrated in Figures 5 and 6, respectively. The illustrated travel patterns represent only those zone-to-zone movements in excess of 100 vehicles.

Through traffic, vehicles which would use the entire length of the proposed toll road, is predominant during both May and July. The heaviest travel desires indicated during both periods are those between Norfolk and downtown Virginia Beach representing approximately 2,400 trips during an average day in May and 3,700 trips on an average day in July.

The primary western trip termini were Norfolk and the U. S. Naval Base. Approximately 6,500 trips were found to have origins or destinations in the Norfolk area, excluding the naval base, in May and 6,800 in July. The naval base served as the origin or destination for 3,800 and 4,600 trips during an average day in May and July, respectively.

Downtown Virginia Beach was the main eastern terminus of trips considered in some measure potential to the proposed toll road.

TABLE 14  
ESTIMATED ANNUAL AVERAGE DAILY TRAFFIC AT SURVEY STATIONS  
1962

STATION <sup>1</sup>	ROUTE	MAY ADT <sup>2</sup>	JULY ADT <sup>3</sup>	1962 AADT <sup>4</sup>
1	U. S. 58	19,749	24,900	18,250
2 <sup>4</sup>	U. S. 58	23,171	26,121	23,700
3	U. S. 58	25,999	29,643	26,800
4	U. S. 58	32,374	33,343	30,700
5 <sup>5</sup>	U. S. 60	11,766	15,759	11,200

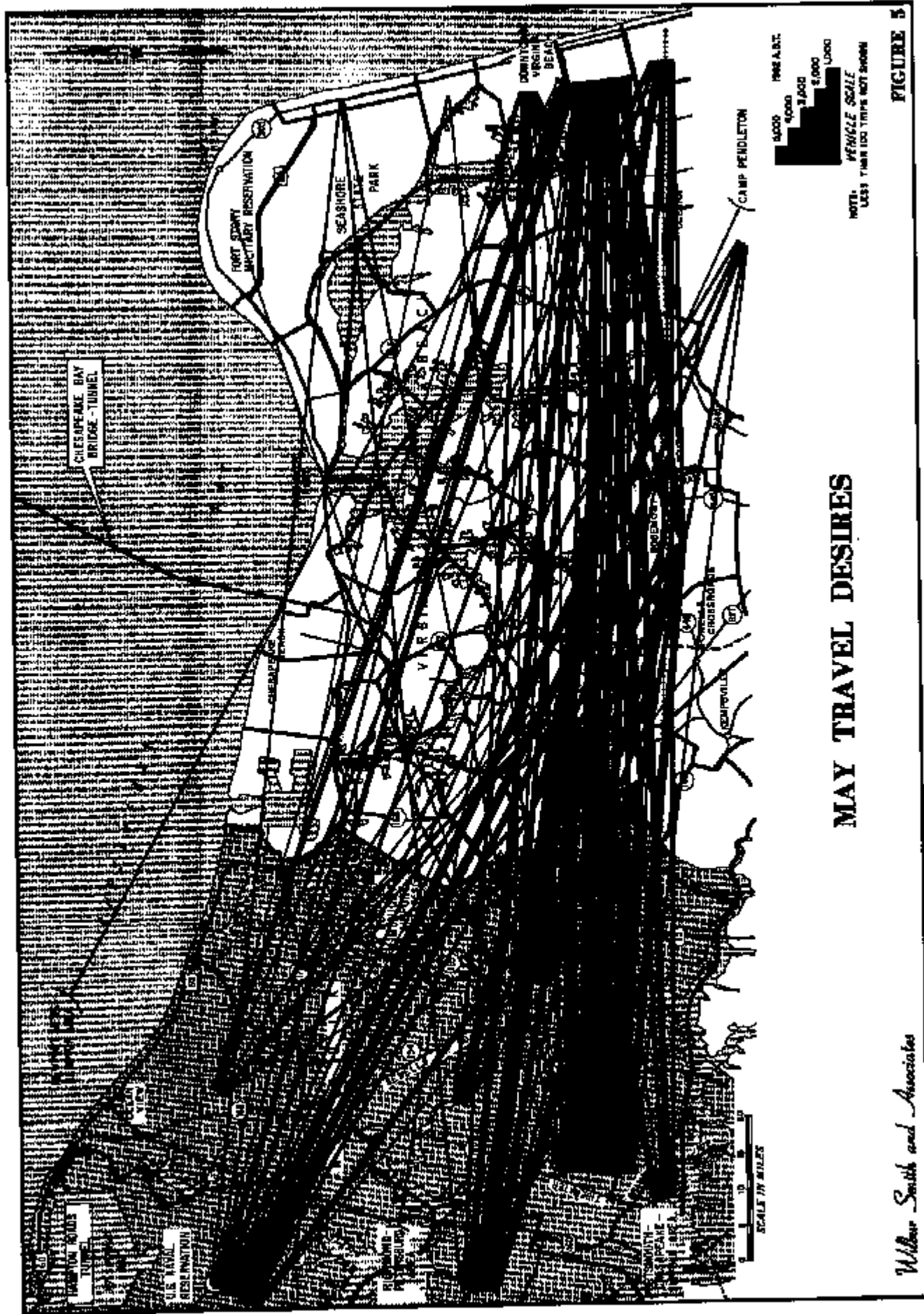
<sup>1</sup> See Table 12 for location and dates of operation.

<sup>2</sup> ADT—Average Daily Traffic.

<sup>3</sup> AADT—Annual Average Daily Traffic.

<sup>4</sup> Estimated 1965 AADT = 27,800.

<sup>5</sup> Estimated 1965 AADT = 13,800.

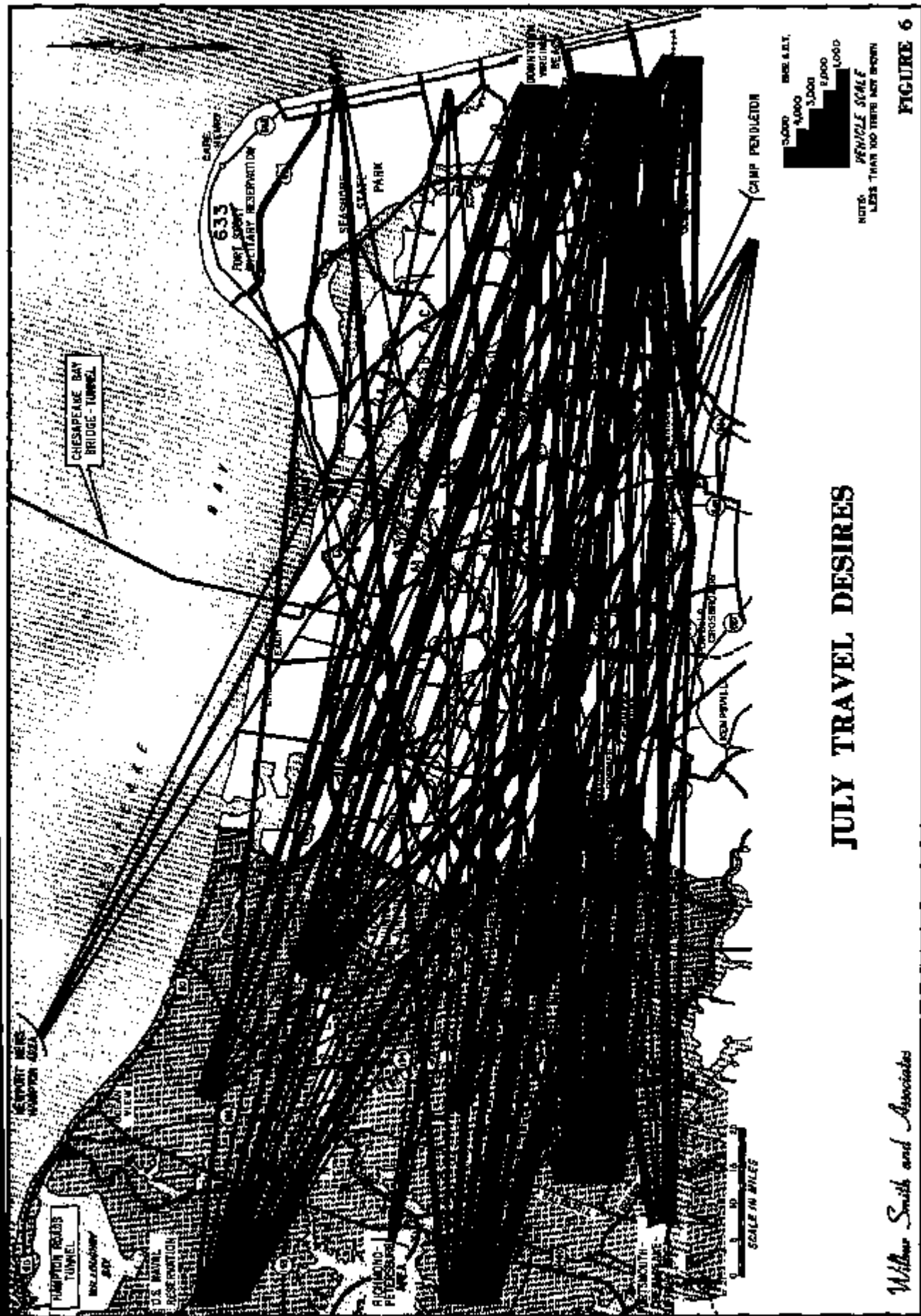


**MAY TRAVEL DESIRES**

**FIGURE 5**

*Willow Smith and Associates*





*Willmar Smith and Associates*

## JULY TRAVEL DESIRES

FIGURE 6

Approximately 10,500 trips were found to have an origin or destination in downtown Virginia Beach during an average day in May and 15,800 during an average day in July. Fort Story served as a terminus for less than 200 trips considered wholly or partially potential to the proposed toll road during both May and July.

Trips with one or both termini in the area along the proposed facility were a considerably higher proportion of total usage during May than in July. The largest local termini were Powells Crossroads and Rosemont. Powells Crossroads accounted for approximately 5,300 and 5,600 trips during an average day in May and July, respectively. Rosemont served as a terminus for approximately 7,700 and 6,600 trips on an average day in May and July, respectively.

A smaller number of trips had Lynnhaven and Londonbridge as their origin or destination — 4,500 and 3,600 trips were found destined to or from Lynnhaven during an average day in May and July, respectively, and approximately 900 trips had origins or destinations in Londonbridge during an average day in May and 604 during an average day in July.

#### **Comparison of 1962 and 1965 Travel Desires**

The origin and destination studies conducted on U. S. Route 58, east of Secondary Route 645 (Station 2), and on U. S. Route 60, west of Secondary Route 615 (Station 5), on a typical weekday in March-April, 1965 were used to determine if substantial changes in traffic patterns and volumes from those found in 1962 had occurred in the toll road corridor. Any material differences in pattern would, of course, affect estimated traffic and revenues for the proposed toll road.

The estimated 1965 annual average daily traffic at the U. S. Route 58 location approximated 27,800 vehicles, 17 per cent higher than the 23,700 estimated in 1962. Traffic volumes on U. S. Route 60 increased 23 per cent during this same period, from an estimated

11,200 in 1962 to an estimated 13,800 in 1965. Total traffic passing through Stations 2 and 5, comprising the major screenline intercepting all of the through traffic potential to the proposed toll road, increased from 34,900 in 1962 to 41,600 in 1965, an average annual growth of 6.0 per cent during the three-year period.

An examination of the travel patterns found in the 1962 and 1965 surveys reveal a good correlation for the major zone-to-zone movements. For trips to and from downtown Virginia Beach, the 1965 survey shows a decrease of trips to the central core area but a comparable increase in trips to the fringe area. Above average increases have occurred for trips moving between the Norfolk area and Fort Story and also between the Norfolk area and the Belle Haven - Rosemont - Lynnhaven areas. Rosemont-oriented traffic moving to and from the east has increased considerably over the 1962 travel patterns.

#### **Origin of Hotel-Motel Guests in Downtown Virginia Beach**

Downtown Virginia Beach is a very popular recreational area not only for Virginia but for the entire east coast. This is substantiated by a study made in 1961 of home residence of hotel-motel guests during a summer season at downtown Virginia Beach.

As shown in Table 15, almost half of the guests indicated a home residence outside Virginia. It is interesting to note that a higher number of guests gave North Carolina and New York as their home residence than the Norfolk-Portsmouth area. However, this study was made of overnight guests and Norfolk is less than 20 miles from downtown Virginia Beach, a very attractive one-day trip.

The Petersburg-Richmond area represented approximately 11 per cent of the home residences of guests, with Lynchburg and Roanoke accounting for 9.9 and 4.9 per cent, respectively. Hotel and motel guests from the balance of Virginia amounted to about 19.5 per cent.

TABLE 15  
HOME RESIDENCE OF HOTEL-MOTEL GUESTS  
DURING SUMMER SEASON AT DOWNTOWN VIRGINIA BEACH  
1961

<u>AREA</u>	<u>HOME RESIDENCE OF HOTEL-MOTEL GUESTS (per cent distribution)</u>
Petersburg-Richmond .....	11.0
Lynchburg .....	9.9
Norfolk-Portsmouth .....	6.7
Roanoke .....	4.9
Balance of Virginia .....	19.5
Total Virginia .....	52.0
North Carolina .....	8.1
New York .....	8.0
Pennsylvania .....	6.1
Ohio .....	5.3
New Jersey .....	4.0
Maryland .....	3.1
West Virginia .....	2.5
Washington, D.C. ....	2.2
Canada .....	1.8
Illinois .....	1.6
Florida .....	1.0
Other States .....	4.3
<b>TOTAL</b> .....	<b>100.0</b>

Source: Southeastern Virginia Regional Planning Commission  
Survey Basic Data, Southeastern Virginia Region, 1962.

### Route Reconnaissance

Detailed route reconnaissance was undertaken, in the area which would be served by the proposed toll road, to inventory existing highways and to observe operating characteristics. As already indicated, U. S. Routes 58 and 60 are the only continuous east-west highways between Norfolk and downtown Virginia Beach. Most of the north-south routes with the exception of U. S. Route 60 at the east end and U. S. Route 13 to the west act primarily as feeder routes to the two east-west highways.

*U. S. Route 58* — U. S. Route 58 between the Norfolk-Portsmouth area and downtown Virginia Beach is a four-lane divided highway with partial control of access. The main highway consists of two 11-foot lanes in each direction with six-foot shoulders and a median island varying from four to 60 feet in width. All intersections are at-grade.

There are service roads located on both sides of U. S. Route 58 with a 15-foot border strip between the main roadway and the service roads. Each service road accommodates one 9-foot lane of traffic in each direction. No treated shoulders are provided along the service roads and parking is, of course, prohibited.

Access to the main roadway is accomplished either from the service roads or at signalized intersections. Parking is prohibited on U. S. Route 58 from U. S. Route 13 to downtown Virginia Beach. Left turn lanes are provided where warranted and where the median is of sufficient width. In areas where the median is only four feet wide, left turns are made from the service road. Posted maximum speed limits on U. S. Route 58 between U. S. Route 13 and downtown Virginia Beach are 55 miles per hour for automobiles and 45 miles per hour for trucks.

Development along U. S. Route 58 is pri-

marily commercial and residential. Two major shopping centers and numerous roadside service establishments comprise the predominant roadside development. North of U. S. Route 58, there are several major housing developments with some smaller residential subdivisions in the area to the south.

**U. S. Route 60** — U. S. Route 60 is a four-lane divided facility between U. S. Route 13 and Lynnhaven Bay. It has a paved six-foot shoulder and a 30 to 40 foot median. Commercial development is generally found only near intersecting highways. The U. S. Navy and Seabees Training Center is located in the area north of the highway near Lynnhaven Bay.

A two-lane bridge carries U. S. Route 60 over Lynnhaven Bay; moving east the route then becomes a four-lane divided highway to the intersection of State Route 305. This section of U. S. Route 60 has a 10 to 15 foot median with six-foot gravel shoulders. Scattered residential development exists on both sides of the highway.

Moving eastward from State Route 305, U. S. Route 60 passes between Fort Story and Seashore State Park; this section of the highway is a two-lane facility with a 22-foot pavement and six-foot turf shoulders. The posted speed limit is 45 miles per hour. There are no intersecting roads or roadside developments in this 3.5 mile section.

At Fort Story, U. S. Route 60 turns south and runs parallel to the shoreline as an undivided four-lane, 44-foot arterial street with four-foot gravel shoulders. There is heavy, mixed commercial and residential development on both sides of the route and no parking is allowed on either side. The posted speed limit is 35 miles per hour.

From the northern limits of downtown Virginia Beach to the intersection of U. S. Route 58, development on each side of U. S. Route 60 is predominantly commercial. The pavement continues as a 44-foot, four-lane street with four-foot shoulders; no parking is permitted on either side.

From U. S. Route 58 to U. S. Route 58 Business, the pavement widens to approxi-

mately 55 feet. This permits four travel lanes with parking on both sides. Development along this section of roadway is almost exclusively commercial.

**Route Inventory — Other Highways** — The north-south feeder routes to U. S. Route 58 are all two-lane primary and secondary state routes. Pavement widths vary from 20 to 24 feet with unpaved shoulders from three to six feet wide. Posted speed limits on these roads range from 25 miles per hour on some curves to between 45 and 55 miles per hour on straight sections in rural areas.

### **Typical Time-Distance Relationships**

Representative time-distance relationships for several movements which would have a choice of using either existing highways or the proposed Norfolk-Virginia Beach Toll Road are indicated in Table 16. The savings were determined using the speed-delay information obtained on existing highways and scaled distances and assumed speeds for the proposed toll road. The speed-delay studies were made during both peak and off-peak periods to accurately evaluate the attractiveness of existing highways. The relative times indicated are based on the average of several runs; time-savings for use of the toll road would be considerably greater during periods of peak summer weekend usage when driving times on U. S. Route 58 would be substantially slower.

Motorists moving between the Hampton Roads Bridge-Tunnel and downtown Virginia Beach would find a routing via the proposed toll road the same distance as a trip using State Routes 168, 165, and U. S. Routes 13 and 58 or a routing via U. S. Route 60. However, a trip using the toll road would be approximately six minutes shorter during both peak and off-peak periods than the best alternate highway routing.

Between the Norfolk central business district and downtown Virginia Beach use of either U. S. Route 58 or the toll road would be approximately the same distance but a toll road routing would save about 14 minutes dur-

TABLE 16  
TYPICAL TIME-DISTANCE RELATIONSHIPS

TRAFFIC MOVEMENT BETWEEN	DISTANCE (Miles)	TRAVEL TIME IN MINUTES		AVERAGE SPEED (MPH)		SAVING VIA TOLL ROAD		
		Peak Hour	Off-Peak Hour	Peak Hour	Off-Peak Hour	Distance (Miles)	Peak Hour	Off-Peak Hour
(Minutes)								
Hampton Roads Bridge-Tunnel and Downtown Virginia Beach Via State Routes 168, 165, and U. S. Routes 13 and 58 . . . . .	22	45	40	29	33			
Via U. S. Route 60 . . . . .	22	39	36	34	37			
Via State Routes 168 and 165, Interstate Route 64 and TOLL ROAD . . . . .	22	33	30	40	44	0	6	6
Norfolk Central Business District and Downtown Virginia Beach Via U. S. Route 58 . . . . .	18	40	37	27	29			
Via U. S. Route 58, State Route 166, Interstate Route 264 and TOLL ROAD . . . . .	18	26	24	42	45	0	14	13
Junction U. S. Route 460 - Alt. 460 and Downtown Virginia Beach Via U. S. Routes 13 and 58 . . . . .	29	51	47	34	37			
Via U. S. Route 13 and TOLL ROAD . . . . .	28	39	36	43	47	1	12	11

Note: Assumes completion of portion of Interstate Route 64 between the Toll Road and Sewells Point Road and section of Interstate Route 264 between the Toll Road and Brambleton Avenue prior or concurrent with opening of the Toll Road.

ing peak periods and 13 minutes during off-peak periods. Motorists traveling between the Junction of U. S. Route 460 - Alt. 460 and downtown Virginia Beach would find toll road usage about one mile shorter than existing routes and would save 12 minutes during peak traffic times and 11 minutes during off-peak periods.

**Planned Highway Improvements**

The planned Interstate System for the Norfolk metropolitan area will materially affect usage of the proposed Norfolk-Virginia Beach Toll Road. Interstate Route 264 will serve as a radial type facility connecting downtown Norfolk with the proposed toll road. The portion of this route, between Brambleton Avenue and the western terminus of the toll road, is scheduled for completion by December 1, 1967. When this expressway is completed, and

if the proposed Norfolk-Virginia Beach Toll Road is constructed, motorists will be able to travel between the downtown areas of Norfolk and Virginia Beach entirely on a high speed, controlled access facility.

Interstate Route 64, which will serve as a circumferential route around the Norfolk urban area will also connect with the toll road via the Interstate Route 264-64 interchange. The section of this route from the Interstate Route 264-64 interchange to Sewells Point Road is scheduled for completion by December 1, 1967.

The section of Interstate Route 64 from its proposed junction with Interstate Route 264 and the proposed toll road is now under construction. The design does not make provision for an interchange between Interstate Route 64 and U. S. Route 58 due to the close proximity of the major route junction and the traffic operational problems that would occur.

A study recommending an expressway and arterial route system for southeastern Virginia has recently been completed.<sup>1</sup> These recommendations have been examined for their impact on the proposed toll road. No substantial improvements are contemplated on existing U. S. Routes 58 and 60. Moreover, no extensive paralleling east-west arterials or expressways that would be competitive to the proposed toll road are proposed.

Some improvements are planned in north-south highways that will improve access to the toll road. The only significant new north-south arterial recommended in this report that would affect the usage of the proposed toll road is Independence Boulevard. This route would

provide a four-lane divided connection between State Route 166-U. S. Route 60 near the terminus of the Chesapeake Bay Bridge-Tunnel facility and Princess Anne station. It will connect with U. S. Route 58 and the proposed toll road, east of Powell's Crossroads, where a full interchange will be provided. It is estimated that this facility will have a favorable impact on traffic and revenues of the proposed toll road.

---

<sup>1</sup>"Southeastern Virginia Regional Transportation Study," developed in cooperation with Southeastern Virginia Regional Planning Commission, the cities of Chesapeake, Norfolk, Portsmouth, Suffolk and Virginia Beach, the County of Nansemond, the Virginia Department of Highways, the U. S. Department of Commerce, Bureau of Public Roads, and the Housing and Home Finance Agency by Wilbur Smith and Associates, 1965.

# CHAPTER

# 4

## ESTIMATED USAGE AND REVENUES

Estimated traffic and toll revenues for the proposed Norfolk-Virginia Beach Toll Road are dependent upon the amount of traffic which will be diverted from U. S. Routes 58 and 60, normal traffic growth during construction of the facility and in later years, and the magnitude of generated and development traffic.

Diverted traffic was determined by comparing trip distances and times via the existing highway and street network with those assumed for the proposed toll road, in terms of relative costs to motorists. Normal growth was based upon historical traffic trends on U. S. Routes 58 and 60 and trends in economic activity in the Norfolk-Virginia Beach area.

Induced traffic may be divided into two parts -- generated and development traffic. Generated traffic is that which would occur upon construction of the toll road as a result of its convenience and attractiveness to users. Development traffic is anticipated additional usage resulting from new activities caused by the presence of the proposed facility, both immediately after its opening and in subsequent years.

### Basic Assumptions

Traffic and revenue estimates for the proposed Norfolk-Virginia Beach Toll Road are predicated upon the following basic assumptions:

1. The proposed facility will be opened to traffic on January 1, 1968.
2. The proposed Norfolk-Virginia Beach Toll Road will be built along the recommended alignment. The toll schedule and toll collection scheme will be as proposed.
3. U. S. Route 58, between Norfolk and

downtown Virginia Beach will not be improved to expressway standards. This would not be practical due to the narrow right-of-way and intensive roadside development, and is not contemplated by the Virginia State Highway Department.

4. Interstate Route 264 will be completed from the westerly terminus of the proposed toll road to Brambleton Avenue, near downtown Norfolk by December, 1967.
5. Interstate Route 64 will be completed from the proposed Interstate Route 264-64 interchange northerly to Sewells Point Road by December, 1967.
6. Independence Boulevard will be completed from the proposed interchange with the toll road to U. S. Route 13 near the terminus of the Chesapeake Bay Bridge-Tunnel facility by December, 1967.
7. No other expressways or toll roads will be built in the traffic corridor between Norfolk and Virginia Beach. None are planned nor proposed in the long range expressway and arterial street transportation plan for the area.
8. The toll road will be well-maintained, efficiently operated, and effectively signed in order to encourage maximum usage. This would include the placement of "trail blazers" on all feeder routes to the proposed facility.
9. The present general level of economic activity will continue and no national emergency will arise which would abnormally restrict the use of motor vehicles.

Any departure from these conditions could materially affect estimated traffic and revenues for the proposed toll road.

**Recommended Method of Toll Collection**

Several toll collection schemes were evaluated to determine the optimum method of collecting tolls. A closed ticket-type system was considered but discarded as impractical due to the length of the facility and the higher initial and continuing cost of constructing and maintaining separate toll collection facilities at each interchange.

A barrier type toll collection system is recommended for the proposed Norfolk-Virginia Beach Toll Road. This scheme would permit a high level of traffic service consistent with maximization of toll revenues. Various combinations of mainline and ramp barriers were tested to arrive at the most desirable scheme. Under the recommended toll system, shown in Figure 7, a single mainline barrier and ramp barriers at three interchange locations are proposed. In this manner, through vehicles, which are expected to account for the bulk of the traffic using the proposed facility, would have to make only one stop. The mainline toll barrier, which would have eight toll lanes, with provision for reversible lane operation, would be located west of Secondary Route 645.

Automatic or "honor system" toll collection

installations are recommended at the three interchange ramp barriers. This would substantially reduce annual operating costs while providing a high level of traffic service to local motorists. Ramp tolls would be collected from motorists using the ramps to and from the west at Secondary Route 647 and Independence Boulevard and on the interchange ramps to and from the east at Secondary Route 644. A total of six ramp toll installations would be required. A single toll lane would be provided initially at each location.

It has been assumed that no tolls would be collected west of Secondary Route 552 or on the westbound entrance and eastbound exit ramps at the Secondary Route 652 interchange to permit full federal participation in the construction costs of the ramps and through lanes connecting to the Interstate Route 64-264 interchange.

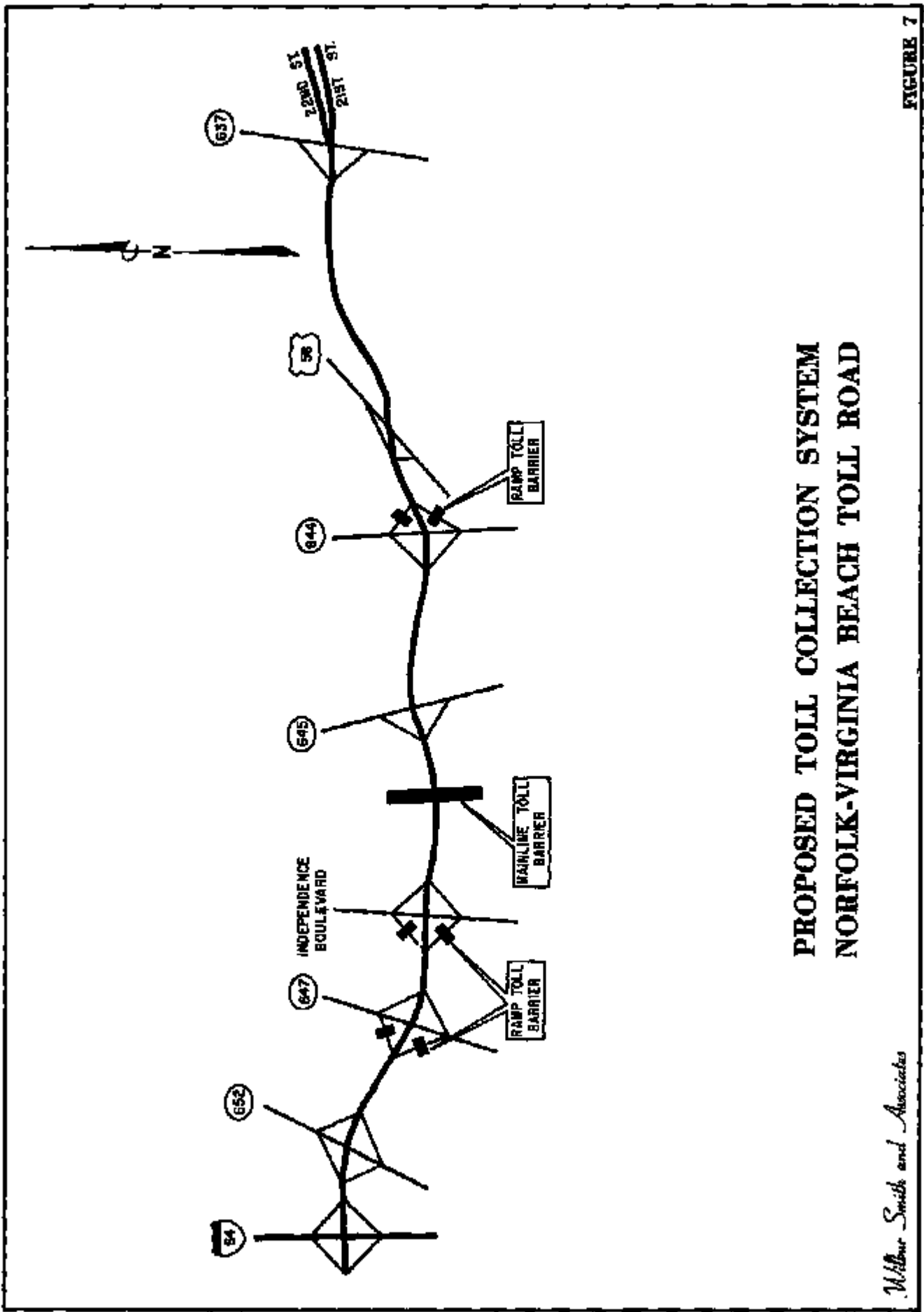
**Recommended Toll Schedule**

Under the recommended toll schedule, detailed in Table 17, two-axle vehicles including passenger cars, pickup and panel trucks and two-axle, six-tire trucks would pay a toll of \$0.25 at the mainline barrier and \$0.10 at

TABLE 17  
RECOMMENDED TOLL SCHEDULE

<u>VEHICLE TOLL CLASS</u>	<u>DESCRIPTION</u>	<u>MAINLINE BARRIER</u>	<u>RAMP BARRIERS</u>
1	Two-Axle Vehicle: . . . . . Passenger Car Pickup and Panel Truck Two-Axle, 6-Tire Truck Motorcycle	\$0.25	\$0.10
2	Three-Axle Vehicle: . . . . . Three-Axle Truck Two-Axle Truck Pulling Single-Axle Trailer	\$0.30	\$0.15
3	Four-Axle Vehicle: . . . . . Two-Axle Vehicle Pulling Two-Axle Trailer Three-Axle Vehicle Pulling Single-Axle Trailer	\$0.40	\$0.20
4	Five-Axle Vehicle: . . . . . Three-Axle Vehicle Pulling Two-Axle Trailer Two-Axle Vehicle Pulling Three-Axle Trailer	\$0.50	\$0.25
5	Special and Oversize Vehicles, Per Axle . . . . .	\$0.10	\$0.05





**PROPOSED TOLL COLLECTION SYSTEM  
NORFOLK-VIRGINIA BEACH TOLL ROAD**

*Wilbur Smith and Associates*

**FIGURE 7**

each of the ramp barriers. Larger vehicles would be charged a rate equal to \$0.10 per axle at the mainline barrier and \$0.05 per axle at the ramp barriers. For example, a four-axle vehicle would pay \$0.40 at the mainline barrier and \$0.20 at each ramp barrier. Aside from the two-axle vehicle toll, the ramp toll would be exactly half of that charged at the mainline barrier.

The recommended toll schedule will be easily understood by motorists and, in the case of two-axle vehicles, has the added advantage of being a single coin toll. Use of the per-axle charge at the ramp barriers and the fact that ramp tolls for trucks would be half of the mainline toll should assist in auditing, accounting, and enforcement procedures.

#### **Estimated Diverted Traffic**

Based upon relative trip costs and time savings via U. S. Routes 58 and 60 and the proposed toll road, a redistribution of present traffic in the travel corridor between Norfolk and Virginia Beach was determined. This was done by assigning monetary values to the travel times and distances for potential trips via the alternate routings available to motorists. The traffic assignments considered the time of day during which the trip was made, peak hour versus off-peak periods, as well as trip purpose. For example, a work trip on a weekday as opposed to a recreational trip on a summer weekend.

Previous studies indicate a good correlation between the ratio of road-user costs and the proportion of vehicles that would use the alternate routes available. In general, equal costs indicate an equal division of a traffic movement between the proposed facility and existing routes. A high ratio of road-user costs for use of the new facility to costs via the best competitive routing indicates a low percentage of traffic assignable to the toll road. Conversely, a low ratio of road-user costs using the new facility to costs via the most direct alternate routing indicates that a high percentage of traffic is divertible.

The travel time and distance studies made during the field phases of this project were used as the basis for assigning times and distances via the alternate routings. Distances via the proposed toll road were computed and average speeds assumed for diversion purposes. In addition to the mileage and time costs, tolls were also added to trip costs via the toll road to compare total costs. Typical diversion percentages for major potential movements are summarized in Table 18.

Of the estimated 6,306 vehicles traveling between Norfolk and downtown Virginia Beach on an average day in 1962, 3,630 vehicles or 58 per cent of the total were assigned to the proposed toll road.

Approximately 314 of a total daily movement of 506 vehicles moving between Portsmouth and downtown Virginia Beach — about 62 per cent of the total — were assigned to the proposed facility. Between Norfolk and the Oceana Naval Air Station, approximately 59 per cent of the total traffic movement of 978 vehicles, 573 vehicles, were diverted to the proposed toll road. At 1962 levels, 107 vehicles of a total daily movement of 356 vehicles moving between the Little Creek toll ferry southern terminus (replaced by the Chesapeake Bay Bridge-Tunnel in the Spring of 1964) and downtown Virginia Beach were assigned to the toll road; this represented a diversion of 30 per cent. These vehicles were assigned to the toll road using a routing via the proposed Independence Boulevard improvement.

Estimated 1962 diverted traffic at each of the toll plazas is listed in Table 19. A total of 16,225 vehicles were assigned to the proposed Norfolk-Virginia Beach Toll Road at 1962 levels. The mainline barrier would accommodate approximately 11,600 vehicles, the Secondary Route 647 ramp barrier — 1,353, the Independence Boulevard barrier — 2,200 and the Secondary Route 644 barrier — 1,072.

Passenger cars would make up the bulk of anticipated usage — 91.3 per cent of all vehicles assigned. Two-axle, four-tire vehicles would account for 4.5 per cent and two-axle, six-tire vehicles, 3.7 per cent. Heavy trucks are

TABLE 18  
TYPICAL DIVERTIBLE TRAFFIC MOVEMENTS AT MAINLINE BARRIER  
1962 Average Daily Traffic

<u>BETWEEN</u>	<u>POTENTIAL TRAFFIC</u>	<u>DIVERTED TRAFFIC</u>	<u>PER CENT DIVERTED</u>
Norfolk and downtown Virginia Beach . . . . .	6,306	3,630	58
Norfolk and Belle Haven . . . . .	1,872	788	42
Newport News and downtown Virginia Beach . . . . .	324	211	65
Norfolk and Fort Story . . . . .	145	35	24
Portsmouth and downtown Virginia Beach . . . . .	506	314	62
Little Creek Ferry-Southern Terminus (Chesapeake Bay Bridge-Tunnel <sup>1</sup> ) and downtown Virginia Beach . . . . .	356	107	30
Norfolk and Oceana Naval Air Station . . . . .	978	573	59
Norfolk and Lynnhaven . . . . .	563	261	46
Richmond-Petersburg Area and downtown Virginia Beach . . . . .	341	222	65
Norfolk and area north of downtown Virginia Beach . . . . .	1,481	679	46
Norfolk and area west of downtown Virginia Beach . . . . .	1,647	928	56
S. Norfolk and downtown Virginia Beach . . . . .	230	150	65
Norfolk and area south of Virginia Beach . . . . .	863	451	52
All other trips combined . . . . .	19,288	3,251	17
Total . . . . .	34,900	11,600*	33

<sup>1</sup> Opened to traffic April 13, 1964.

\* See Table 19.

TABLE 19  
ESTIMATED 1962 DIVERTED TRAFFIC  
Average Annual Daily Traffic

<u>VEHICLE CLASS</u>	<u>MAINLINE BARRIER</u>	<u>RAMP BARRIERS</u>			<u>TOTAL</u>	<u>PER CENT OF TOTAL</u>
		<u>Secondary Route 647</u>	<u>Independence Boulevard</u>	<u>Secondary Route 644</u>		
Passenger Cars . . . . .	10,570	1,241	2,014	989	14,814	91.3
2-Axle, 4-Tire Trucks . . . . .	514	61	99	51	725	4.5
2-Axle, 6-Tire Trucks . . . . .	448	44	75	27	594	3.7
3-Axle Trucks . . . . .	39	4	7	3	53	0.3
4-Axle Trucks . . . . .	27	3	5	2	37	0.2
5-Axle Trucks . . . . .	2	—	—	—	2	—
Total Vehicles . . . . .	11,600	1,353	2,200	1,072	16,225	100.0

estimated to make up a relatively minor percentage of total usage with three-axle vehicles amounting to 0.3 per cent and four-axle vehicles, 0.2 per cent.

**Estimated Growth in Toll Road Usage**

Estimated annual growths for the proposed Norfolk-Virginia Beach Toll Road were developed from traffic trends on U. S. Routes 58 and

60 and anticipated growths in economic activity in southeastern Virginia. During the past five years, traffic on U. S. Route 58, between Norfolk and downtown Virginia Beach has increased at an average annual rate of 6.7 per cent while an average annual growth of 6.9 per cent was recorded on U. S. Route 60 in this same area. Good growths have also occurred in population and various economic indices in this area.

Based upon these trends, a normal annual traffic growth of six per cent was estimated for the toll road between 1962 and 1971. As shown in Table 20, this normal growth is estimated to decrease to five per cent annually between 1971 and 1976 and to four per cent per year between 1976 and 1982. For purposes of conservatism, no normal annual growth has been projected beyond 1982, although a continued growth in traffic is expected.

During the assumed first full year of operation, 1968, an induced traffic growth (including both generated and development) of 10 per cent was estimated. This is expected to decrease to five per cent between the first and second years of operation.

The magnitude of induced traffic assumed for the Norfolk-Virginia Beach Toll Road during the first two years of operation is conservative as compared with the experience found on

other major toll facilities in the nation. On the Hampton Roads Bridge-Tunnel, the total growth including induced traffic during the second year of operation was about 21 per cent over first year revenues. During the 1958-1963 period, this facility enjoyed a growth of almost 11 per cent, compounded annually.

Other major toll roads have also demonstrated substantial growths during the initial years of operation. The Florida Turnpike, during its second year of operation, experienced a growth of about 12 per cent over the \$4,170,000 revenues earned during 1957, its initial year of operation. In 1959, its third year of operation, toll revenues were almost 12 per cent higher than the previous year. In New Jersey, the New Jersey Turnpike and Garden State Parkway recorded annual growths of 22 and 17 per cent, respectively, during their second years of operation. Increases considerably

TABLE 20  
ESTIMATED ANNUAL PER CENT TRAFFIC GROWTH

<u>YEAR</u>	<u>NORMAL GROWTH</u>	<u>GENERATED AND DEVELOPMENT GROWTH</u>
1962 .....	Base Year	
1963 .....	6	
1964 .....	6	
1965 .....	6	
1966 .....	6	
1967 .....	6	
1968 <sup>1</sup> .....	6	10
1969 .....	6	5
1970 .....	6	
1971 .....	6	
1972 .....	5	
1973 .....	5	
1974 .....	5	
1975 .....	5	
1976 .....	5	
1977 .....	4	
1978 .....	4	
1979 .....	4	
1980 .....	4	
1981 .....	4	
1982 .....	4	

<sup>1</sup> Assumed first full year of operation.

over the normal rates of growth were also recorded on the Massachusetts Turnpike and Indiana Toll Road.

Generated traffic will be comprised of additional trips made due to the convenience and attractiveness of the new facility. Motorists from the Norfolk-Portsmouth area, traveling to downtown Virginia Beach, will save time using the proposed toll road as well as enjoy a safer and more comfortable journey. In addition, the toll road should provide an impetus for increased commercial, industrial, and residential development in the Norfolk and Virginia Beach area. This is, in some measure, reflected by the strip-type commercial and residential development which now exists along U. S. Route 58. Upon construction of the proposed toll road, additional development of this nature would be encouraged in the toll road travel corridor.

**Estimated First Year Traffic and Revenues**

Estimated usage and revenues for the proposed Norfolk-Virginia Beach Toll Road during the first full year of operation, 1968, are shown in Table 21. Traffic and revenues are indicated by vehicle toll class.

Total first year toll transactions at all barriers are estimated at 9,240,800 vehicles. Of this total 9,188,500 would fall within Vehicle Toll Class 1 as two-axle vehicles. Approximately 30,200 three-axle, 21,000 four-axle and 1,100 five-axle vehicles are also estimated. The mainline toll barrier is expected to intercept an estimated 6,606,700 vehicles in 1968. Approximately 770,600 vehicles are estimated at the Secondary Route 647 ramp barrier, 1,253,000 at the Independence Boulevard ramp barrier, and 610,500 at the Secondary Route 644 ramp barrier.

Total revenues of \$1,867,100 are estimated for the proposed Norfolk-Virginia Beach Toll Road during the first full year of operation. Of this amount \$1,655,500 is anticipated at the mainline toll barrier, \$61,900 at the Secondary Route 647 toll barrier, \$100,700 at the Independence Boulevard toll barrier, and \$49,000 at the Secondary Route 644 toll barrier. Two-axle vehicles are expected to contribute the bulk of first year toll revenues, \$1,851,600. Tolls from three-axle vehicles are estimated at \$7,700; four-axle vehicles, \$7,200; and five-axle vehicles, \$600.

TABLE 21  
ESTIMATED FIRST YEAR TRAFFIC AND REVENUES - 1968

TOLL BARRIER	VEHICLE TOLL CLASS				TOTAL
	1	2	3	4	
<b>MAINLINE</b>					
Traffic .....	6,568,000	22,200	15,400	1,100	6,606,700
Revenues .....	\$1,642,000	\$6,700	\$6,200	\$ 600	\$1,655,500
<b>RAMPS</b>					
Secondary Route 647:					
Traffic .....	766,600	2,300	1,700	—	770,600
Revenues .....	\$ 61,300	\$ 300	\$ 300	—	\$ 61,900
Independence Boulevard:					
Traffic .....	1,246,200	4,000	2,800	—	1,253,000
Revenues .....	\$ 99,700	\$ 500	\$ 500	—	\$ 100,700
Secondary Route 644:					
Traffic .....	607,700	1,700	1,100	—	610,500
Revenues .....	\$ 48,600	\$ 200	\$ 200	—	\$ 49,000
<b>TOTALS</b>					
Traffic .....	9,188,500	30,200	21,000	1,100	9,240,800
Revenues .....	\$1,851,600	\$7,700	\$7,200	\$ 600	\$1,867,100

In developing these revenue estimates, consideration was given to non-payment of tolls at the unattended automatic toll barriers located at the Secondary Route 647, Independence Boulevard and Secondary Route 644 Interchanges. Previous studies have indicated that, where no supervision is present, a collection level of approximately 80 per cent through the automatic toll barriers is reasonable. This level, which takes into account those people who do not have the correct change or who may be "toll-dodging" was used in developing ramp toll barrier revenue estimates. No adjustment was made for non-payment of tolls at the automatic toll lanes at the mainline barrier since manual lanes are also provided at this location and the entire toll plaza will be under constant supervision.

#### **Estimated Annual Usage**

Estimated annual average daily traffic at each of the toll barriers on the proposed Nor-

folk-Virginia Beach Toll Road during the first 15 years of operation, 1968 through 1982, is shown in Table 22. It is estimated that usage at the mainline barrier will increase from 18,100 vehicles per day in 1968 to 36,600 vehicles in 1982. Similar growths are indicated at the ramp barriers with usage at Secondary Route 647 increasing from 2,110 vehicles per day in 1968 to 4,260 in 1982, Independence Boulevard from 3,430 to 6,930 and Secondary Route 644, from 1,670 to 3,380.

#### **Estimated Annual Revenues**

Estimated annual toll revenues for the proposed Norfolk-Virginia Beach Toll Road are given in Table 23. The estimates are intended to show the trend over a period of years, rather than the exact earnings for any particular year. There would, of course, be years in which growths in toll revenues might be higher or lower than indicated depending upon economic conditions and other local factors affecting usage at that time.

TABLE 22  
ESTIMATED ANNUAL AVERAGE DAILY TRAFFIC

YEAR	MAINLINE BARRIER	RAMP BARRIERS		
		Secondary Route 647	Independence Boulevard	Secondary Route 644
1968	18,100	2,110	3,430	1,670
1969	20,100	2,350	3,820	1,860
1970	21,400	2,490	4,050	1,970
1971	22,600	2,640	4,290	2,090
1972	23,800	2,770	4,510	2,200
1973	25,000	2,910	4,733	2,310
1974	26,200	3,060	4,970	2,420
1975	27,500	3,210	5,220	2,540
1976	28,900	3,370	5,480	2,670
1977	30,000	3,500	5,700	2,780
1978	31,200	3,640	5,930	2,890
1979	32,500	3,790	6,160	3,000
1980	33,800	3,940	6,410	3,120
1981	35,200	4,100	6,670	3,250
1982	36,600	4,260	6,930	3,380

TABLE 23  
ESTIMATED ANNUAL REVENUES

YEAR	TOLL BARRIERS		TOTAL
	Mainline	Ramps	
1968	\$1,655,000	\$212,000	\$1,867,000
1969	1,843,000	236,000	2,079,000
1970	1,953,000	250,000	2,203,000
1971	2,070,000	265,000	2,335,000
1972	2,174,000	278,000	2,452,000
1973	2,283,000	292,000	2,575,000
1974	2,397,000	306,000	2,703,000
1975	2,517,000	322,000	2,839,000
1976	2,642,000	338,000	2,980,000
1977	2,748,000	351,000	3,099,000
1978	2,858,000	365,000	3,223,000
1979	2,972,000	380,000	3,352,000
1980	3,091,000	395,000	3,486,000
1981	3,215,000	411,000	3,626,000
1982	3,343,000	427,000	3,770,000
Next 22 Years Annually			\$3,770,000
<b>AVERAGE ANNUAL REVENUES:</b>			
First Five Years			\$2,187,000
First Ten Years			\$2,513,000
Thirty-Seven Years			\$3,393,000

For the first full year of operation, 1968, toll revenues of \$1,867,000 are estimated. The mainline barrier is expected to contribute \$1,655,000 and the ramp barriers \$212,000. By 1972, toll revenues for the facility are estimated to increase to \$2,452,000; during 1982, the fifteenth year of operation, toll revenues of \$3,770,000 are anticipated.

Average annual revenues during the first five years of operation are estimated at \$2,187,000; this is expected to increase to an average of

\$2,513,000 over the first 10 years of operation. Average annual toll revenues over the 37-year earning period of the proposed 40-year bond issue are estimated at \$3,393,000.

In developing average annual revenues for the 37-year earning period, it was assumed, for purposes of conservatism, that the 1982 toll levels would continue unchanged for the next 22 years. However, it is anticipated that some growth in revenues would occur during this period.

STATE HIGHWAY COMMISSION  
OF VIRGINIA

to

VIRGINIA NATIONAL BANK

As Trustee

---

**Trust Indenture**

---

Dated as of July 1, 1965

---

---



THIS INDENTURE, dated for convenience of reference as of the 1st day of July, 1965, by and between

**STATE HIGHWAY COMMISSION**

(hereinafter sometimes called the "Commission"), an agency of the State of Virginia (also known as the "Commonwealth of Virginia"), and

**VIRGINIA NATIONAL BANK,**

a national banking association duly organized and existing under the laws of the United States of America and having its principal office in the City of Norfolk, Virginia, which is authorized under such laws to exercise corporate trust powers and is subject to examination by federal authority, as trustee (said banking association and any bank or trust company becoming successor trustee under this Indenture being hereinafter sometimes called the "Trustee"), WITNESSETH:

WHEREAS, by virtue of Article 8, Chapter 3, Title 33, Code of Virginia, 1950, as amended (hereinafter sometimes called the "State Revenue Bond Act"), the Commission is authorized and empowered

(a) to acquire by purchase or by condemnation, construct, improve, operate and maintain any one or more of the projects mentioned in the State Revenue Bond Act, including, among others, a highway extending from a point in the vicinity of the intersection of Interstate Route 64 and U. S. Route 58 in the City of Norfolk, Virginia, to some feasible point between Londonbridge and U. S. Route 60 in the City of Virginia Beach, Virginia,

(b) to issue revenue bonds of the State of Virginia to pay the cost of such projects, and

(c) to fix and collect tolls and other charges for the use of such projects; and

WHEREAS, the Consulting Engineers (hereinafter defined) have made investigations and studies and have prepared and filed with the Commission their engineering report dated October 25, 1965, describing a toll road, approximately 12.1 miles in length, extending from the interchange of Interstate Routes 64 and 264, immediately south of U. S.

Route 58, in the City of Norfolk, Virginia, to a point in the City of Virginia Beach, Virginia, east of Londonbridge and west of U. S. Route 60, having an eastbound roadway terminus at 21st Street and a westbound roadway terminus at 22nd Street in the City of Virginia Beach (said toll road being hereinafter sometimes called the "Project"), and setting forth their estimates of the cost of constructing the Project and of the amounts required for maintenance, repair and operation of the Project and for reserves for such purposes; and

WHEREAS, the Traffic Engineers (hereinafter defined) have made investigations and studies and have prepared and filed with the Commission their traffic report dated July 31, 1965, describing the Project and setting forth their estimates with respect to the traffic to use the Project and the revenues to be received therefrom based on the tolls recommended by them; and

WHEREAS, the Commission has determined the location of the Project and has approved plans for the construction of the Project as recommended by the Consulting Engineers; and

WHEREAS, the Commission has determined to proceed with the construction of the Project and has determined that the proceeds of the revenue bonds to be issued initially under the provisions of this Indenture will be required and will be sufficient to pay the cost of the Project as such cost is defined in the State Revenue Bond Act; and

WHEREAS, the Commission has determined to provide for the issuance from time to time of additional revenue bonds of the State on a parity with the bonds initially issued under the provisions of this Indenture for the purpose of paying all or any part of the cost of any additions, improvements and enlargements to the Project, if and to the extent then permitted by law; and

WHEREAS, for the purpose of paying the cost of the Project, the Commission has by resolution duly authorized the issuance of toll revenue bonds of the State of Virginia in the aggregate principal amount of Thirty-four Million Dollars (\$34,000,000), designated "State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road)", dated as of the 1st day of July, 1965, and bearing interest

and maturing, subject to the right of prior redemption, all as hereinafter set forth (said bonds and all additional bonds at any time issued under this Indenture being hereinafter sometimes called the "bonds"); and

WHEREAS, the Commission has determined that the coupon bonds to be issued hereunder and the interest coupons to be attached thereto, the registered bonds without coupons to be issued hereunder, and the certificate of authentication by the Trustee to be endorsed on all such bonds shall be, respectively, substantially in the following forms, with such variations, omissions and insertions as are required or permitted by this Indenture:

No. ....	(Form of Coupon Bonds)	\$5,000
UNITED STATES OF AMERICA STATE OF VIRGINIA TOLL REVENUE BOND (SERIES 1965) (Norfolk-Virginia Beach Toll Road) Due January 1, 2005		

The State of Virginia (also known as the "Commonwealth of Virginia"), by the State Highway Commission as an agency thereof, for value received, hereby promises to pay, solely from the special fund provided therefor as hereinafter set forth, to the bearer on the 1st day of January, 2005 (or earlier as hereinafter referred to), upon the presentation and surrender hereof, the principal sum of

**FIVE THOUSAND DOLLARS**

and to pay, solely from said special fund, interest thereon from the date hereof at the rate of ..... per centum (....%) per annum until payment of said principal sum, such interest to the maturity hereof being payable semi-annually on the 1st days of January and July in each year upon the presentation and surrender of the coupons representing such interest as the same respectively become due. Both the principal of and the interest on this bond are payable in any coin or currency of the United States of America which on the respective dates of payment thereof is legal tender for the payment of public and private debts. The principal of this bond and the interest hereon are payable at the principal office of Virginia National Bank, in the City of Norfolk,

Virginia, or, at the option of the holder, at the principal office of Chemical Bank New York Trust Company, in the Borough of Manhattan, City and State of New York.

The State of Virginia is not obligated to pay this bond or the interest hereon except from the special fund provided therefor from tolls and revenues of the Toll Road (hereinafter defined), and the faith and credit of the State are not pledged to the payment of the principal hereof or the interest hereon, and the State is not, directly or indirectly or contingently, obligated to levy or to pledge any form of taxation whatever therefor or to make any appropriation for the payment of the principal of or the interest on this bond except from such special fund.

This bond is one of a duly authorized series of revenue bonds (herein called the "bonds") known as "State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road)", dated as of the 1st day of July, 1965, and issued for the purpose of paying the cost of a toll road extending from the interchange of Interstate Routes 64 and 264, immediately south of U. S. Route 58, in the City of Norfolk, Virginia, to a point in the City of Virginia Beach, Virginia, east of Londonbridge and west of U. S. Route 60, having an eastbound roadway terminus at 21st Street and a westbound roadway terminus at 22nd Street in the City of Virginia Beach (said toll road being herein called the "Project"). The bonds of this series aggregate Thirty-four Million Dollars (\$34,000,000) in principal amount, the proceeds of which bonds were estimated at the time of their issuance to be sufficient to provide funds for such purpose.

All of the bonds are issued under and pursuant to a trust indenture (said indenture, together with all indentures supplemental thereto as therein permitted, being herein called the "Indenture"), dated as of the 1st day of July, 1965, by and between the State Highway Commission (herein sometimes called the "Commission") and Virginia National Bank, in the City of Norfolk, Virginia, as trustee (said banking association and any bank or trust company becoming successor trustee under the Indenture being herein called the "Trustee"), an executed counterpart of which Indenture is on file at the principal office of the Trustee. Reference is hereby made to the Indenture for the provisions, among

others, with respect to the custody and application of the proceeds of bonds issued under the Indenture, the collection and disposition of revenues, the fund charged with and pledged to the payment of the interest on and the principal of the bonds, the nature and extent of the security, the terms and conditions on which the bonds of each series are or may be issued, the rights, duties and obligations of the Commission and of the Trustee and the rights of the holders of the bonds, and, by the acceptance of this bond, the holder hereof assents to all of the provisions of the Indenture.

The Indenture provides that, if and to the extent necessary to provide additional funds for completing payment of the cost of the Project, additional series of bonds may be issued under the Indenture for such purpose. The Indenture also provides, if and to the extent then permitted by law, for the issuance, from time to time, under the conditions, limitations and restrictions therein set forth, of additional series of bonds for the purpose of paying all or any part of the cost of any additions, improvements and enlargements to the Project (the Project, together with any additions, improvements and enlargements thereto, being herein called the "Toll Road").

This bond is issued and the Indenture was made and entered into under and pursuant to the Constitution and laws of the State of Virginia, particularly Article 8, Chapter 3, Title 33, Code of Virginia, 1950, as amended (herein called the "State Revenue Bond Act"), and under and pursuant to resolutions duly adopted by the Commission.

The Indenture, in accordance with and as required by the State Revenue Bond Act, provides for the fixing, revising, charging and collecting by the Commission of tolls for the use of the Toll Road and for revising such tolls from time to time in order that such tolls and other revenues of the Toll Road will be sufficient to provide funds to pay the cost of maintaining, repairing and operating the Toll Road and to pay the principal of and the interest on all bonds issued under the Indenture as the same shall become due and payable, and to create reserves for such purposes. The Indenture also provides for the deposit of a sufficient amount of such tolls and other revenues, over and above

such cost of maintenance, repair and operation and reserves for such purposes, to the credit of a special fund designated "State of Virginia Toll Revenue Bonds (Series 1965) Interest and Sinking Fund" (herein called the "Sinking Fund") to pay such principal and interest. The Sinking Fund is pledged to and charged with the payment of the principal of and the interest on all bonds issued under the Indenture.

The bonds are issuable as coupon bonds in the denomination of \$5,000 each, and as registered bonds without coupons in denominations of \$5,000 or any multiple thereof. At the principal office of the Trustee, in the manner and subject to the limitations and conditions provided in the Indenture, registered bonds without coupons may be exchanged for an equal aggregate principal amount of coupon bonds of the same series, bearing interest at the same rate and having attached thereto coupons representing all unpaid interest due or to become due thereon, or of registered bonds without coupons of the same series, of authorized denominations and bearing interest at the same rate, and coupon bonds with all coupons appertaining thereto representing all unpaid interest due or to become due thereon may in like manner be exchanged for an equal aggregate principal amount of registered bonds without coupons of the same series, of authorized denominations and bearing interest at the same rate.

The bonds of this series at the time outstanding may be redeemed prior to their maturity either

(a) in whole, on any date not earlier than January 1, 1976, at the option of the Commission, from any moneys that may be made available for such purpose, at the principal amount of the bonds to be redeemed, together with the interest accrued thereon to the date fixed for redemption, plus a premium of 4% of such principal amount if redeemed on or prior to December 31, 1980, 3% if redeemed thereafter and on or prior to December 31, 1985, 2% if redeemed thereafter and on or prior to December 31, 1990, 1% if redeemed thereafter and on or prior to December 31, 1995,  $\frac{1}{2}$  of 1% if redeemed thereafter and on or prior to December 31, 2000, and without premium if redeemed thereafter, or

(b) in part, on any interest payment date not earlier than January 1, 1971, from moneys in the Sinking Fund, at the principal amount of the bonds to be redeemed, together with the interest accrued thereon to the date fixed for redemption, plus a premium of 3% of such principal amount if redeemed on or prior to July 1, 1975, 2% if redeemed thereafter and on or prior to July 1, 1980, 1% if redeemed thereafter and on or prior to July 1, 1985,  $\frac{1}{2}$  of 1% if redeemed thereafter and on or prior to July 1, 1990, and without premium if redeemed thereafter.

The moneys in the Sinking Fund available for the purchase or redemption of bonds shall be allocated to all series of bonds outstanding under the Indenture in the manner provided in the Indenture.

If less than all of the bonds of a series shall be called for redemption, the particular bonds or portions of registered bonds without coupons to be redeemed from such series shall be selected by lot as provided in the Indenture.

Any such redemption, either in whole or in part, shall be made upon at least thirty (30) days' prior notice by publication and otherwise as provided in the Indenture, and shall be made in the manner and under the terms and conditions provided in the Indenture. On the date designated for redemption, notice having been published and moneys for payment of the redemption price and the accrued interest being held by the Trustee or by the paying agents, all as provided in the Indenture, the bonds or portions of registered bonds without coupons so called for redemption shall become and be due and payable at the redemption price provided for redemption of such bonds or such portions thereof on such date, interest on such bonds or such portions thereof so called for redemption shall cease to accrue, the coupons for any such interest payable subsequent to the redemption date shall be void, such bonds or such portions thereof so called for redemption shall cease to be entitled to any benefit or security under the Indenture, and the holders or registered owners thereof shall have no rights in respect of such bonds or such portions thereof so called for redemption except to receive payment of the redemption price thereof and the accrued interest so held by the Trustee or by the paying agents.

The holder of this bond shall have no right to enforce the provisions of the Indenture or to institute action to enforce the covenants therein, or to take any action with respect to any event of default under the Indenture, or to institute, appear in or defend any suit or other proceeding with respect thereto, except as provided in the Indenture.

Modifications or alterations of the Indenture or of any indenture supplemental thereto may be made by the Commission and the Trustee only to the extent and in the circumstances permitted by the Indenture.

As declared by the State Revenue Bond Act, this bond shall have, as between successive holders, all the qualities and incidents of negotiable instruments under the negotiable instruments law of the State of Virginia, and nothing contained in this bond or in the Indenture shall affect or impair the negotiability of this bond.

This bond is issued with the intent that the laws of the State of Virginia shall govern its construction.

All acts, conditions and things required by the Constitution and laws of the State of Virginia and the rules and regulations of the Commission to happen, exist and be performed precedent to and in the issuance of this bond and the execution of the Indenture have happened, exist and have been performed as so required.

This bond shall not be valid or become obligatory for any purpose or be entitled to any benefit or security under the Indenture until it shall have been authenticated by the execution by the Trustee of the certificate of authentication endorsed hereon.

IN WITNESS WHEREOF, the State of Virginia, by the State Highway Commission as an agency thereof, has caused this bond to be signed by the State Highway Commissioner, who is the Chairman of said Commission, and the official seal of said Commission to be affixed hereto and attested by the Secretary of said Commission, and the attached interest coupons to bear the facsimile signature of said State Highway Commissioner, all as of the 1st day of July, 1965.

Attest:

.....  
State Highway Commissioner

.....  
Secretary of the  
State Highway Commission



(FORM OF COUPONS)

No. .... \$.....

On ..... 1, 19...., the State of Virginia, by the State Highway Commission as an agency thereof, will pay to bearer (unless the bond mentioned below shall previously have become payable as provided in the Indenture referred to in said bond and provision for payment thereof shall have been duly made) at the principal office of Virginia National Bank, in the City of Norfolk, Virginia, or, at the option of the bearer, at the principal office of Chemical Bank New York Trust Company, in the Borough of Manhattan, City and State of New York, upon the presentation and surrender hereof, the sum of ..... Dollars in any coin or currency of the United States of America which at the time of payment is legal tender for the payment of public and private debts, solely from the special fund referred to in, and for the semi-annual interest then due upon, its Toll Revenue Bond (Series 1965) (Norfolk-Virginia Beach Toll Road), dated as of July 1, 1965, No. ....

.....  
State Highway Commissioner

(Form of Registered Bonds Without Coupons)

Same as Form of Coupon Bonds except as follows:

1. *Substitute the following for the caption and the first paragraph:*

No. B ..... \$.....

UNITED STATES OF AMERICA  
STATE OF VIRGINIA  
TOLL REVENUE BOND (SERIES 1965)  
(Norfolk-Virginia Beach Toll Road)  
Due January 1, 2005

The State of Virginia (also known as the "Commonwealth of Virginia"), by the State Highway Commission as an agency thereof, for value received, hereby promises to pay, solely from the special fund provided therefor as hereinafter set forth, to .....  
....., or registered assigns or legal representative, on the 1st day of January, 2005 (or earlier as hereinafter referred to), upon the

presentation and surrender hereof at the principal office of the Trustee (hereinafter mentioned), the principal sum of

..... DOLLARS

in any coin or currency of the United States of America which on the date of payment thereof is legal tender for the payment of public and private debts, and to pay, solely from said special fund, to the registered owner hereof by check or draft mailed to the registered owner at his address as it appears on the bond registration books of the State Highway Commission, interest on said principal sum from ..... at the rate of ..... per centum (....%) per annum until payment of said principal sum, such interest to the maturity hereof being payable semi-annually on the 1st days of January and July in each year in like coin or currency.

**2. *Substitute the following for the paragraph concerning the notice of redemption and the effect thereof:***

Any such redemption, either in whole or in part, shall be made upon at least thirty (30) days' prior notice by publication and otherwise as provided in the Indenture, and shall be made in the manner and under the terms and conditions provided in the Indenture. On the date designated for redemption, notice having been published and moneys for payment of the redemption price and the accrued interest being held by the Trustee or by the paying agents, all as provided in the Indenture, the bonds or portions of registered bonds without coupons so called for redemption shall become and be due and payable at the redemption price provided for redemption of such bonds or such portions thereof on such date, interest on such bonds or such portions thereof so called for redemption shall cease to accrue, such bonds or such portions thereof so called for redemption shall cease to be entitled to any benefit or security under the Indenture, and the holders or registered owners thereof shall have no rights in respect of such bonds or such portions thereof so called for redemption except to receive payment of the redemption price thereof and the accrued interest so held by the Trustee or by the paying agents. If a portion of this bond shall be called for redemption, a new bond or bonds in principal amount equal to the unredeemed portion hereof will be issued to the registered owner upon the surrender hereof.

**3. *Substitute the following for the paragraph concerning negotiability:***

This bond is transferable by the registered owner hereof in person

or by his attorney or legal representative at the principal office of the Trustee but only in the manner and subject to the limitations and conditions provided in the Indenture, and upon surrender and cancellation of this bond. Upon any such transfer the Commission shall execute and the Trustee shall authenticate and deliver in exchange for this bond a new registered bond or bonds without coupons, registered in the name of the transferee, of authorized denominations, or, at the option of the transferee, coupon bonds with coupons attached representing all unpaid interest due or to become due thereon, in aggregate principal amount equal to the principal amount of this bond, of the same series and bearing interest at the same rate.

As declared by the State Revenue Bond Act, this bond shall have, as between successive holders, all the qualities and incidents of negotiable instruments under the negotiable instruments law of the State of Virginia, subject to the provisions for transfer stated herein and contained in the Indenture, and, subject to such provisions, nothing contained in this bond or in the Indenture shall affect or impair the negotiability of this bond.

*4. Substitute the following for the witnessing clause:*

IN WITNESS WHEREOF, the State of Virginia, by the State Highway Commission as an agency thereof, has caused this bond to be signed by the State Highway Commissioner, who is the Chairman of said Commission, and the official seal of said Commission to be affixed hereto and attested by the Secretary of said Commission, all as of the 1st day of July, 1965.

*5. Omit the Form of Coupons.*

(To be endorsed on all bonds)

**CERTIFICATE OF AUTHENTICATION**

This bond is one of the bonds of the series designated therein and issued under the provisions of the within mentioned Indenture.

**VIRGINIA NATIONAL BANK,  
As Trustee**

By.....  
Authorized Officer

and

WHEREAS, by virtue of the State Revenue Bond Act, the Commission is authorized to issue revenue bonds of the State as hereinafter provided, to enter into this Indenture and to do or cause to be done all the acts and things herein provided or required to be done as hereinafter covenanted; and

WHEREAS, the execution and delivery of this Indenture have been duly authorized by resolution of the Commission; and

WHEREAS, all acts, conditions and things required by the Constitution and laws of the State of Virginia and by the rules and regulations of the Commission to happen, exist and be performed precedent to and in the execution and delivery of this Indenture have happened, exist and have been performed as so required, in order to make this Indenture a legal, valid and binding trust indenture for the security of the bonds in accordance with its terms; and

WHEREAS, the Trustee has accepted the trusts created by this Indenture and in evidence thereof has joined in the execution hereof;

Now, THEREFORE, THIS INDENTURE WITNESSETH, that in consideration of the premises, of the acceptance by the Trustee of the trusts hereby created, and of the purchase and acceptance of the bonds by the holders thereof, and also for and in consideration of the sum of One Dollar to the Commission in hand paid by the Trustee at or before the execution and delivery of this Indenture, the receipt of which is hereby acknowledged, and for the purpose of fixing and declaring the terms and conditions upon which the bonds are to be issued, authenticated, delivered, secured and accepted by all persons who shall from time to time be or become holders thereof, and in order to secure the payment of all the bonds at any time issued and outstanding hereunder and the interest and the redemption premium, if any, thereon according to their tenor, purport and effect, and in order to secure the performance and observance of all the covenants, agreements and conditions therein and herein contained, the Commission has executed and delivered this Indenture and has pledged and does hereby pledge to the Trustee the tolls and other revenues of the Toll Road (hereinafter defined) and other moneys to the extent provided in this Indenture as security for the payment of

the bonds and the interest and the redemption premium, if any, thereon and as security for the satisfaction of any other obligation assumed by it in connection with such bonds, and it is mutually agreed and covenanted by and between the parties hereto, for the equal and proportionate benefit and security of all and singular the present and future holders of the bonds issued and to be issued under this Indenture, without preference, priority or distinction as to lien or otherwise, except as otherwise hereinafter provided, of any one bond over any other bond, by reason of priority in the issue, sale or negotiation thereof or otherwise, as follows:

#### ARTICLE I

##### DEFINITIONS.

**SECTION 101.** In addition to words and terms elsewhere defined in this Indenture, the following words and terms as used in this Indenture shall have the following meanings, unless some other meaning is plainly intended:

As applied to the bonds of any Series, the term "Amortization Requirement" for any fiscal year shall mean the principal amount fixed or computed for such fiscal year as hereinafter set forth for the retirement of the bonds of such Series by purchase or redemption.

The Amortization Requirements for the bonds of each Series shall be initially the respective principal amounts (each of which shall be in a multiple of \$5,000) for the respective fiscal years as fixed in the resolution of the Commission awarding the bonds of such Series. The aggregate amount of such Amortization Requirements for the bonds of each Series shall be equal to the principal amount of the bonds of such Series. The Amortization Requirements for the bonds of each Series shall begin in the fiscal year determined by the Commission and shall end with the fiscal year immediately preceding the maturity of such bonds.

If at the close of any fiscal year the total principal amount of the bonds of any Series retired by purchase or redemption or called for redemption under the provisions of Section 511 of this Indenture prior to the close of such fiscal year shall be in excess of,

(Sec. 101)

or shall be less than, the total amount of the Amortization Requirements for the bonds of such Series to and including such fiscal year, then the total amount of the Amortization Requirements for the bonds of such Series for all subsequent fiscal years shall be reduced by the amount of such excess or increased by the amount of such deficiency. The amount of the reduction or of the increase in the Amortization Requirement for each such subsequent fiscal year shall be in the same proportion, as nearly as practicable (the amount of the reduction or increase in any such fiscal year being in a multiple of \$5,000) as determined by the Trustee, as the total reduction or total increase for all such subsequent fiscal years bears to the total amount of the Amortization Requirements for all such subsequent fiscal years for the bonds of such Series.

It shall be the duty of the Trustee, on or before the 10th day of January in each fiscal year, to compute the Amortization Requirements for the then current and all subsequent fiscal years for the bonds of each Series then outstanding. The Amortization Requirement for the then current fiscal year shall continue to be applicable during the balance of such current fiscal year and no adjustment shall be made therein by reason of bonds purchased or redeemed during such current fiscal year.

The term "Annual Budget" shall mean the Commission's budget of Current Expenses adopted or in effect for each fiscal year pursuant to the provisions of Section 505 of this Indenture.

The term "Bond Interest Account" shall mean the special account created in the Sinking Fund by the provisions of Section 607 of this Indenture.

The word "bonds" shall mean the bonds issued under this Indenture.

The term "Chief Engineer" shall mean the Chief Engineer for the State Highway Commission, or such other employee or officer as may be lawfully employed or designated to perform the functions of the Chief Engineer.

The word "Commission" shall mean the State Highway Commission or, if the State Highway Commission shall be abolished, any board, commission or officer succeeding to the principal functions thereof or upon whom the powers given by the State Revenue Bond Act to the Commission shall be given by law.

The term "Construction Fund" shall mean the State of Virginia 1965 Toll Project Construction Fund, a special fund created and designated by the provisions of Section 401 of this Indenture.

The term "Consulting Engineers" shall mean the engineer or engineering firm or corporation at the time employed by the Commission under the provisions of Section 706 of this Indenture to perform and carry out the duties imposed on the Consulting Engineers by this Indenture.

The word "cost", as applied to the Project or any Improvements, shall embrace, without intending thereby to limit or restrict any proper definition of such word under the provisions of the State Revenue Bond Act, the cost of construction and all obligations and expenses and all items of cost which are set forth in Section 403 of this Indenture.

The term "Current Expenses" shall mean the Commission's reasonable and necessary current expenses of maintenance, repair and operation of the Toll Road, whether payable or paid from the tolls and other revenues of the Toll Road or from any other available funds, and shall include, without limiting the generality of the foregoing, all ordinary and usual expenses of maintenance, repair and operation, which may include expenses not annually recurring, premiums for insurance, all administrative and engineering expenses relating to maintenance, repair and operation, fees and expenses of the Trustee and the Paying Agents, legal expenses, advertising expenses, any taxes lawfully levied on the Toll Road, any reasonable payments to pension or retirement funds, and any other expenses required or permitted to be paid by the Commission under the provisions of this Indenture or by law, but shall not include any reserves for extraordinary maintenance or repair, or any allowance for depreciation, or any deposits or transfers to

(Sec. 101)

16

the credit of the Sinking Fund, the Reserve Maintenance Fund or the Improvement Fund.

The term "daily newspaper" shall mean a newspaper regularly published in the English language on at least five business days in each calendar week.

The term "fiscal year" shall mean the same as the calendar year.

The term "Improvement Fund" shall mean the State of Virginia 1965 Toll Project Improvement Fund, a special fund created and designated by the provisions of Section 507 of this Indenture.

The word "Improvements" shall mean any additions, improvements and enlargements to the Project.

The word "Indenture" shall mean this Indenture, dated as of the 1st day of July, 1965, together with all indentures supplemental hereto as herein permitted.

The term "Initial Budget" shall mean the Commission's budget of Current Expenses adopted or in effect pursuant to the provisions of the last paragraph of Section 505 of this Indenture.

The term "Paying Agents" shall mean the Virginia National Bank, in the City of Norfolk, Virginia, and the Chemical Bank New York Trust Company, in the Borough of Manhattan, City and State of New York, and any successor of either thereof.

The term "Principal and Interest Requirements" for any fiscal year, as applied to the bonds of any Series, shall mean the sum of:

(a) the amount required to pay the interest on all bonds of such Series then outstanding which is payable on July 1 in such fiscal year and on January 1 in the following fiscal year, and

(b) the Amortization Requirement for the bonds of such Series for such fiscal year.

The Principal and Interest Requirements shall be determined, as required from time to time, by the Trustee. In computing the Prin-



cipal and Interest Requirements for any fiscal year for the bonds of any Series, the Trustee shall assume that an amount of the bonds of such Series equal to the Amortization Requirement for the bonds of such Series for such fiscal year will be retired by purchase or redemption on the 1st day of January of the succeeding fiscal year.

The term "principal underwriters" shall mean the firms or corporations or the firm or corporation named as the principal underwriters in the resolution mentioned in clause (a) of Section 208 of this Indenture. In the event two or more firms or corporations shall be named as the principal underwriters and any such firm or corporation shall retire from active business leaving no successor, the term shall thereafter mean the remaining underwriter or underwriters. In the event only one firm or corporation shall be named or shall remain as the principal underwriters and such firm or corporation shall retire from active business leaving no successor, the provisions of this Indenture which relate to the principal underwriters shall no longer be in force. For the purposes of this paragraph any firm or corporation succeeding to the business of any principal underwriter by assignment, merger or otherwise shall be deemed to be a principal underwriter.

The word "Project" shall mean the toll road, approximately 12.1 miles in length, extending from the interchange of Interstate Routes 64 and 264, immediately south of U. S. Route 58, in the City of Norfolk, Virginia, to a point in the City of Virginia Beach, Virginia, east of Londonbridge and west of U. S. Route 60, having an eastbound roadway terminus at 21st Street and a westbound roadway terminus at 22nd Street in the City of Virginia Beach, as described in the engineering report of the Consulting Engineers dated October 25, 1965.

The term "Redemption Account" shall mean the special account created in the Sinking Fund by the provisions of Section 507 of this Indenture.

The term "report date" shall mean the date on which the Consulting Engineers shall have submitted their report to the Commission pursuant to the provisions of the second paragraph of Section 504 of this Indenture.

(Sec. 101)

18

The term "Reserve Account" shall mean the special account created in the Sinking Fund by the provisions of Section 507 of this Indenture.

The term "Reserve Maintenance Fund" shall mean the State of Virginia 1965 Toll Project Reserve Maintenance Fund, a special fund created and designated by the provisions of Section 507 of this Indenture.

The term "Revenue Fund" shall mean the State of Virginia 1965 Toll Project Revenue Fund, a special fund created in the State Treasury and designated by the provisions of Section 508 of this Indenture.

The word "Series" shall mean either the bonds issued under the provisions of Section 208 of this Indenture for the purpose of paying the cost of the Project or the bonds, if any, delivered at any one time under the provisions of Section 209 of this Indenture for the purpose of completing payment of the cost of the Project or the bonds, if any, delivered at any one time under the provisions of Section 210 of this Indenture for the purpose of paying all or any part of the cost of any Improvements.

The term "Sinking Fund" shall mean the State of Virginia Toll Revenue Bonds (Series 1965) Interest and Sinking Fund, a special fund created and designated by the provisions of Section 507 of this Indenture, there being three separate accounts in the Sinking Fund designated "Bond Interest Account", "Reserve Account" and "Redemption Account", respectively.

The term "State Revenue Bond Act" shall mean Article 8, Chapter 3, Title 33, Code of Virginia, 1960, as amended.

The term "Toll Road" shall mean the Project together with any improvements.

The term "Traffic Engineers" shall mean the engineer or engineering firm or corporation at the time employed by the Commission under the provisions of Section 706 of this Indenture to perform and carry out the duties imposed on the Traffic Engineers by this Indenture.

The word "Trustee" shall mean the Trustee for the time being, whether original or successor.

The term "1965 Revenue Fund—Trustee Account" shall mean the special account created and designated by the provisions of Section 506 of this Indenture.

The term "1965 Toll Project Bond Proceeds Account" shall mean the special account created in the State Treasury and designated by the provisions of Section 208 of this Indenture.

**SECTION 102.** Words of the masculine gender shall be deemed and construed to include correlative words of the feminine and neuter genders. Unless the context shall otherwise indicate, the words "bond", "coupon", "owner", "holder" and "person" shall include the plural as well as the singular number, the word "person" shall include corporations and associations, including public bodies, as well as natural persons, and the word "holder" or "bondholder" when used herein with respect to bonds issued hereunder shall mean the holder or registered owner, as the case may be, of bonds at the time issued and outstanding hereunder.

## ARTICLE II

### FORM, EXECUTION, AUTHENTICATION AND DELIVERY OF BONDS.

**SECTION 201.** No bonds may be issued under the provisions of this Indenture except in accordance with the provisions of this Article.

**SECTION 202.** The definitive bonds are issuable as coupon bonds in the denomination of \$5,000 each, and as registered bonds without coupons in denominations of \$5,000 or any multiple thereof. The definitive bonds issued under the provisions of Section 206 of this Article shall be substantially in the forms hereinabove set forth, with such appropriate variations, omissions and insertions as are permitted or required by this

(Sec. 203)

20

Indenture. The bonds issued under the provisions of any other Section of this Article shall be substantially in the forms hereinabove set forth, with such additional changes as may be necessary or appropriate to conform to the provisions of the resolution or resolutions providing for the issuance of such bonds. All such bonds may have endorsed thereon such legends or text as may be necessary or appropriate to conform to any applicable rules and regulations of any governmental authority or of any securities exchange on which the bonds may be listed or any usage or requirement of law with respect thereto.

SECTION 203. The bonds shall be dated, shall bear interest until their payment, such interest to the maturity thereof being payable semi-annually on the 1st days of January and July in each year, and shall be stated to mature (subject to the right of prior redemption), all as hereinafter provided.

Each coupon bond shall bear interest from its date. Each registered bond without coupons shall bear interest from the interest payment date next preceding the date on which it is authenticated, unless authenticated upon an interest payment date, in which case it shall bear interest from such interest payment date, or, unless authenticated prior to the first interest payment date, in which case it shall bear interest from its date; provided, however, that if at the time of authentication of any registered bond without coupons interest is in default, such bond shall bear interest from the date to which interest shall have been paid.

The bonds shall be signed by the State Highway Commissioner, who is the Chairman of the Commission, and the official seal of the Commission shall be affixed to the bonds and attested by the Secretary of the Commission; provided, however, that the bonds may be executed in such other manner as may then be authorized by law.

The coupons attached to the coupon bonds shall be substantially in the form hereinabove set forth and shall bear the facsimile signature of the State Highway Commissioner.

In case any officer whose signature or a facsimile of whose signature shall appear on any bonds or coupons shall cease to be such officer before

the delivery of such bonds, such signature or such facsimile shall nevertheless be valid and sufficient for all purposes the same as if he had remained in office until such delivery, and also any bond may bear the facsimile signature of or may be signed by such persons as at the actual time of the execution of such bond shall be the proper officers to sign such bond although at the date of such bond such persons may not have been such officers.

Both the principal of and the interest on the bonds shall be payable in any coin or currency of the United States of America which on the respective dates of payment thereof is legal tender for the payment of public and private debts. The principal of coupon bonds and the interest thereon shall be payable at the principal office of Virginia National Bank, in the City of Norfolk, Virginia, or, at the option of the holder, at the principal office of Chemical Bank New York Trust Company, in the Borough of Manhattan, City and State of New York (herein sometimes called the "Paying Agents"). The principal of all registered bonds without coupons shall be payable at the principal office of the Trustee, and payment of the interest on each registered bond without coupons shall be made by the Trustee on each interest payment date to the person appearing on the registration books of the Commission hereinafter provided for as the registered owner thereof, by check or draft mailed to such registered owner at his address as it appears on such registration books. Payment of the principal of all bonds shall be made upon the presentation and surrender of such bonds as the same shall become due and payable. Payment of the interest on the coupon bonds shall be made upon the presentation and surrender of the coupons, if any, representing such interest as the same respectively become due and payable.

SECTION 204. Only such of the bonds as shall have endorsed thereon a certificate of authentication substantially in the form hereinabove set forth, duly executed by the Trustee, shall be entitled to any benefit or security under this Indenture. No bond and no coupon appertaining to any coupon bond shall be valid or obligatory for any purpose unless and until such certificate of authentication shall have been duly executed by the Trustee, and such certificate of the Trustee upon any such bond shall be conclusive evidence that such bond has been duly authenticated and delivered under this Indenture. The Trustee's certificate of authentica-

(Sec. 205)

tion on any bond shall be deemed to have been duly executed if signed by an authorized officer of the Trustee, but it shall not be necessary that the same officer sign the certificate of authentication on all of the bonds that may be issued hereunder at any one time. Before authenticating or delivering any coupon bonds the Trustee shall detach and cancel all matured coupons, if any, appertaining thereto, except any coupons which represent unpaid interest.

SECTION 205. Coupon bonds, upon surrender thereof at the principal office of the Trustee with all unmatured coupons and all matured coupons in default, if any, appertaining thereto, may, at the option of the holder thereof, be exchanged for an equal aggregate principal amount of registered bonds without coupons of the same Series, of any denomination or denominations authorized by this Indenture, bearing interest at the same rate, and, with the exception of the differences between the form of coupon bonds and the form of registered bonds without coupons which are set forth in the preambles of this Indenture, in the same form as the coupon bonds surrendered for exchange.

Registered bonds without coupons, upon surrender thereof at the principal office of the Trustee, together with an assignment duly executed by the registered owner or his attorney or legal representative in such form as shall be satisfactory to the Trustee, may, at the option of the registered owner thereof, be exchanged for an equal aggregate principal amount of coupon bonds of the same Series, bearing interest at the same rate and having attached thereto coupons representing all unpaid interest due or to become due thereon, or of registered bonds without coupons of the same Series, of any denomination or denominations authorized by this Indenture, and bearing interest at the same rate, and in either case, with the exception of the differences between the form of coupon bonds and the form of registered bonds without coupons which are set forth in the preambles of this Indenture, in the same form as the registered bonds without coupons surrendered for exchange.

The Commission shall make provision for the exchange of bonds at the principal office of the Trustee.

SECTION 206. Title to any coupon bond and to any interest coupon shall pass by delivery in the same manner as a negotiable instrument payable to bearer.

The Trustee as Bond Registrar shall keep books of the Commission for the registration and for the transfer of bonds as provided in this Indenture. The principal of any registered bond without coupons shall be payable only to or upon the order of the registered owner or his legal representative.

Any registered bond without coupons may be transferred only upon the books kept for the registration and transfer of bonds upon surrender thereof to the Bond Registrar together with an assignment duly executed by the registered owner or his attorney or legal representative in such form as shall be satisfactory to the Bond Registrar. Upon any such transfer the Commission shall execute and the Trustee shall authenticate and deliver in exchange for such bond, a new registered bond or bonds without coupons, registered in the name of the transferee, of any denomination or denominations authorized by this Indenture, or, at the option of the transferee, coupon bonds with coupons attached representing all unpaid interest due or to become due thereon, in an aggregate principal amount equal to the principal amount of such registered bond without coupons, of the same Series and bearing interest at the same rate.

In all cases in which bonds shall be exchanged or registered bonds without coupons shall be transferred hereunder, the Commission shall execute and the Trustee shall authenticate and deliver at the earliest practicable time bonds in accordance with the provisions of this Indenture. All bonds and coupons surrendered in any such exchange or transfer shall forthwith be cancelled by the Trustee. The Commission or the Trustee may make a charge for every such exchange or transfer of bonds sufficient to reimburse it for any tax, fee or other governmental charge required to be paid with respect to such exchange or transfer, but no other charge shall be made to any bondholder for the privilege of exchanging or transferring bonds under the provisions of this Indenture. Neither the Commission nor the Trustee shall be required to make any such exchange or transfer of bonds during the fifteen (15) days immediately preceding an interest payment date on the bonds or, in the case of any proposed redemption of bonds, after such bond or any portion thereof has been selected for redemption.

**SECTION 207.** As to any registered bond without coupons, the person in whose name the same shall be registered shall be deemed and

(Sec. 208)

regarded as the absolute owner thereof for all purposes, and payment of or on account of the principal of any such bond and the interest thereon shall be made only to or upon the order of the registered owner thereof or his legal representative. All such payments shall be valid and effectual to satisfy and discharge the liability upon such bond including the interest thereon to the extent of the sum or sums so paid. The Commission, the Trustee, the Bond Registrar and the Paying Agents may deem and treat the bearer of any coupon bond, and the bearer of any coupon appertaining to any coupon bond, as the absolute owner of such bond or coupon, as the case may be, whether such bond or coupon shall be overdue or not, for the purpose of receiving payment thereof and for all other purposes whatsoever, and neither the Commission, the Trustee, the Bond Registrar nor the Paying Agents shall be affected by any notice to the contrary.

Any person in possession of any coupon bond or of any coupon appertaining to any coupon bond, regardless of the manner in which he shall have acquired possession, is hereby authorized to represent himself as the absolute owner of such bond or coupon, as the case may be, and is hereby granted power to transfer absolute title thereto by delivery thereof to a bona fide purchaser for value (present or antecedent) without notice of prior defenses or equities or claims of ownership enforceable against his transferor or any person in the chain of title and before the maturity of such bond. Any registered owner of any registered bond without coupons is hereby granted power to transfer absolute title thereto by assignment thereof to a bona fide purchaser for value (present or antecedent) without notice of prior defenses or equities or claims of ownership enforceable against his assignor or any person in the chain of title and before the maturity of such bond. Every prior holder or owner of any bond or of any coupon appertaining to any coupon bond shall be deemed to have waived and renounced all of his equities or rights therein in favor of every such bona fide purchaser, and every such bona fide purchaser shall acquire absolute title thereto and to all rights represented thereby.

SECTION 208. There shall be initially issued under and secured by this Indenture revenue bonds of the State of Virginia in the aggregate principal amount of Thirty-four Million Dollars (\$34,000,000) for



the purpose of paying the cost of the Project. Said bonds shall be designated "State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road)", shall be dated as of the 1st day of July, 1965, shall bear interest at a rate not exceeding six per centum (6%) per annum, and shall be stated to mature, subject to the right of prior redemption as hereinafter set forth, on the 1st day of January, 2005.

Said bonds shall be executed substantially in the form and manner hereinabove set forth and shall be deposited with the Trustee for authentication, but before said bonds shall be authenticated and delivered by the Trustee there shall be filed with the Trustee the following:

(a) a copy, certified by the Secretary or an Assistant Secretary of the Commission, of the resolution adopted by the Commission awarding said bonds, fixing the initial Amortization Requirements for said bonds, specifying the interest rate of said bonds and directing the authentication and delivery of said bonds to or upon the order of the principal underwriters therein named upon payment of the purchase price therein set forth and the accrued interest on said bonds;

(b) a statement, signed by the Consulting Engineers and approved by the Chief Engineer, giving the Consulting Engineers' estimates of

(i) the date on which the Project will be opened for traffic,

(ii) the date on which the construction of the Project will be completed,

(iii) the cost of the Project, including an amount for contingencies but excluding financing charges and interest during construction, and

(iv) the amount of funds required each three months following the delivery of said bonds and during the estimated period of construction to meet such cost, accompanied by a progress schedule for such construction;

(c) vouchers, signed by the State Highway Commissioner or by such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose,

(Sec. 208)

26

directing the issuance of warrants by the State Comptroller for disbursements by the State Treasurer from the proceeds of said bonds of the amounts and for the purposes hereinafter set forth in this Section; and

(d) an opinion of the Attorney General or an Assistant Attorney General of the Commonwealth stating that the signer is of the opinion that the issuance of said bonds and the execution of this Indenture have been duly authorized and that all conditions precedent to the delivery of said bonds have been fulfilled.

When the documents and vouchers mentioned above in this Section shall have been filed with the Trustee and when said bonds shall have been executed and authenticated as required by this Indenture, the Trustee shall deliver (i) said vouchers to the State Comptroller and (ii) said bonds at one time to or upon the order of the principal underwriters named in the resolution mentioned in clause (a) of this Section, but only upon payment to the State Treasurer of the purchase price of said bonds and the accrued interest, and the State Treasurer shall simultaneously therewith deposit the proceeds (including accrued interest) of said bonds with the Trustee, as depository thereof, for the credit of a special account hereby created in the State Treasury and designated "1965 Toll Project Bond Proceeds Account". The State Treasurer and the Trustee shall be entitled to rely upon such resolution as to the names of the principal underwriters, the initial Amortization Requirements for said bonds, the interest rate of said bonds and the amount of such purchase price.

The proceeds (including accrued interest) of said bonds shall be applied simultaneously with the delivery of said bonds as follows:

(1) The sum of \$300,000 shall be paid to the Trustee for deposit to the credit of a special checking account in its commercial department in the name of the Commission, to be used by the Commission as a checking account for the payment of expenses incident to the financing. The Trustee shall be under no duty or obligation with respect to the disbursements by the Commission of such sum or any part thereof. The Commission shall pay such expenses by check drawn on said account and signed by such officer

or officers or employee or employees of the Commission as shall be designated by the State Highway Commissioner for such purpose. Any balance of said sum not expended within ninety (90) days from the date of delivery of said bonds shall be paid by the Commission to the Trustee for deposit to the credit of the Construction Fund.

(2) The balance of said proceeds shall be paid to the Trustee for deposit to the credit of the Construction Fund.

SECTION 209. If and to the extent necessary (as shown by the documents mentioned in clauses (a) and (c) of this Section) to provide additional funds for completing payment of the cost of the Project, revenue bonds of the State of Virginia may be issued under and secured by this Indenture, at one time or from time to time, in addition to the bonds issued under the provisions of Section 208 of this Article. Such additional bonds shall be designated "State of Virginia Toll Revenue Bonds (Series 1965) (Norfolk-Virginia Beach Toll Road)", shall be dated, shall bear interest at a rate not exceeding the maximum rate permitted by law, shall be stated to mature on the 1st day of January, 2005, and shall be made redeemable at such times and prices (subject to the provisions of Article III of this Indenture), all as may be provided by the resolution authorizing the issuance of such bonds. Except as to any difference in the rate of interest or the provisions for redemption, such additional bonds shall be on a parity with and shall be entitled to the same benefit and security of this Indenture as the bonds issued under the provisions of Section 208 of this Article.

Such additional bonds shall be executed substantially in the form and manner hereinabove set forth and shall be deposited with the Trustee for authentication, but before such bonds shall be authenticated and delivered by the Trustee, there shall be filed with the Trustee the following:

(a) a copy, certified by the Secretary or an Assistant Secretary of the Commission, of the resolution adopted by the Commission authorizing the issuance of such additional bonds in the amount specified therein and fixing the times and prices at which such additional bonds are to be redeemable;

(Sec. 209)

(b) a copy, certified by the Secretary or an Assistant Secretary of the Commission, of the resolution adopted by the Commission awarding such bonds, fixing the initial Amortization Requirements for such bonds, specifying the interest rate of such bonds and directing the authentication and delivery of such bonds to or upon the order of the purchasers therein named upon payment of the purchase price therein set forth and the accrued interest on such bonds;

(c) a statement, signed by the Consulting Engineers and approved by the Chief Engineer, giving the Consulting Engineers' estimates of (i) the date on which the Project will be opened for traffic, unless the Project shall have been opened for traffic prior to the date of such statement, and (ii) the date on which the construction of the Project will be completed, and certifying that, according to the Consulting Engineers' estimate of the total amount required for paying the balance of the cost of the Project, the proceeds of such bonds will be required and will be sufficient for paying such balance, including any financing charges and any interest during construction;

(d) a voucher, signed by the State Highway Commissioner or by such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose, directing the issuance of a warrant by the State Comptroller for payment by the State Treasurer of the proceeds (including accrued interest) of such bonds to the Trustee for deposit to the credit of the Construction Fund; and

(e) an opinion of the Attorney General or an Assistant Attorney General of the Commonwealth stating that the signer is of the opinion that the issuance of such bonds has been duly authorized and that all conditions precedent to the delivery of such bonds have been fulfilled.

When the documents and voucher mentioned above in this Section shall have been filed with the Trustee and when the bonds described in the resolutions mentioned in clauses (a) and (b) of this Section shall have been executed and authenticated as required by this Indenture, the

Trustee shall deliver (i) said voucher to the State Comptroller and (ii) such bonds at one time to or upon the order of the purchasers named in the resolution mentioned in said clause (b), but only upon payment to the State Treasurer of the purchase price of such bonds and the accrued interest, and the State Treasurer shall simultaneously therewith deposit the proceeds (including accrued interest) of such bonds with the Trustee, as depository thereof, for the credit of the 1965 Toll Project Bond Proceeds Account. The State Treasurer and the Trustee shall be entitled to rely upon such resolution as to the names of the purchasers, the initial Amortization Requirements for such bonds, the interest rate of such bonds and the amount of such purchase price.

The proceeds (including accrued interest) of all bonds issued under the provisions of this Section shall be paid by the State Treasurer simultaneously with the delivery of such bonds to the Trustee for deposit to the credit of the Construction Fund.

**SECTION 210.** Additional revenue bonds of the State of Virginia, may be issued under and secured by this Indenture, subject to the conditions hereinafter provided in this Section, for the purpose of paying all or any part of the cost of any Improvements, at any time or times after the expiration of twenty-four (24) complete months following the opening of the Project for traffic, if and to the extent then permitted by law.

Before any bonds shall be issued under the provisions of this Section the Commission shall adopt a resolution authorizing the issuance of such bonds, fixing the amount and the details thereof, and describing in brief and general terms the Improvements to be constructed. The bonds of each Series issued under the provisions of this Section shall be designated "State of Virginia Toll Revenue Bonds (Series . . . . .) (Norfolk-Virginia Beach Toll Road)", shall be dated, shall bear interest at a rate not exceeding the maximum rate permitted by law, shall be stated to mature on January 1 in a year not earlier than the year 2005 and not later than forty (40) years from their date, and shall be made redeemable at such times and prices (subject to the provisions of Article III of this Indenture), all as may be provided by the resolution authorizing the issuance of such bonds. Except as to any difference in the rate of interest or the provisions for redemption, such

(Sec. 210)

30

additional bonds shall be on a parity with and shall be entitled to the same benefit and security of this Indenture as the bonds issued under the provisions of Sections 208 and 209 of this Article. Such additional bonds shall be executed substantially in the form and manner hereinabove set forth and shall be deposited with the Trustee for authentication, but before such bonds shall be authenticated and delivered by the Trustee, there shall be filed with the Trustee the following:

(a) a copy, certified by the Secretary or an Assistant Secretary of the Commission, of the resolution mentioned above;

(b) a copy, certified by the Secretary or an Assistant Secretary of the Commission, of the resolution adopted by the Commission awarding such bonds, fixing the initial Amortization Requirements for such bonds, specifying the interest rate of such bonds and directing the authentication and delivery of such bonds to or upon the order of the purchasers therein named upon payment of the purchase price therein set forth and the accrued interest on such bonds;

(c) a statement, signed by the Consulting Engineers and approved by the Chief Engineer, certifying that the construction of the Improvements described in the resolution authorizing the issuance of such bonds will, in the Consulting Engineers' opinion, preserve, develop or improve the Project and giving the Consulting Engineers' estimates of

(i) the date on which such Improvements will be opened for traffic or placed in operation,

(ii) the date on which the construction of such Improvements will be completed,

(iii) the cost of such Improvements, including an amount for contingencies, and

(iv) the amount of funds required each three months following the delivery of such bonds and during the estimated period of construction to meet such cost, accompanied by a progress schedule for such construction;

(d) a certificate, signed by the State Highway Commissioner and approved by the independent firm of certified public accountants referred to in Section 712 of this Indenture, setting forth

(i) the amount obtained by dividing by two the total amount of the net revenues (the excess of the tolls and other revenues of the Toll Road deposited to the credit of the Revenue Fund over the Current Expenses and the required deposits to the credit of the Reserve Maintenance Fund) of the Toll Road for the last twenty-four (24) months,

(ii) the respective amounts of the Principal and Interest Requirements for each fiscal year thereafter on account of the bonds of each Series then outstanding (as determined by the Trustee) and the bonds then requested to be authenticated and delivered, and

(iii) the amount, if any, which is then or will be available for paying a part of the cost of constructing the Improvements which are described in the resolution mentioned in clause (a) of this Section, and the source or sources from which such amount has been or will be received;

(e) a certificate, signed by the State Highway Commissioner, stating that the Commission is not then in default in the performance of any of the covenants, conditions, agreements or provisions contained in this Indenture;

(f) vouchers, signed by the State Highway Commissioner or by such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose, directing the issuance of warrants by the State Comptroller for payments by the State Treasurer of the proceeds (excluding accrued interest) of such bonds to the Trustee for deposit to the credit of the special construction fund hereinafter mentioned and the amount received as accrued interest on such bonds to the Trustee for deposit to the credit of the Bond Interest Account; and

(g) an opinion of the Attorney General or an Assistant Attorney General of the Commonwealth stating that the signer is of the opinion that the issuance of such bonds has been duly authorized and that all conditions precedent to the delivery of such bonds have been fulfilled.

When the documents and vouchers mentioned above in this Section shall have been filed with the Trustee and when the bonds described in

(Sec. 210)

32

the resolutions mentioned in clauses (a) and (b) of this Section shall have been executed and authenticated as required by this Indenture, the Trustee shall deliver (i) said vouchers to the State Comptroller and (ii) such bonds at one time to or upon the order of the purchasers named in the resolution mentioned in said clause (b), but only upon payment to the State Treasurer of the purchase price of such bonds and the accrued interest, and the State Treasurer shall simultaneously therewith deposit the proceeds (including accrued interest) of such bonds with the Trustee, as depository thereof, for the credit of a special account to be created in the State Treasury and to be designated "19... Toll Project Bond Proceeds Account". The State Treasurer and the Trustee shall be entitled to rely upon such resolution as to the names of the purchasers, the initial Amortization Requirements for such bonds, the interest rate of such bonds and the amount of such purchase price, but the Trustee shall not authenticate and deliver such bonds unless

(I) the proceeds (excluding accrued interest but including any premium) of such bonds, together with the other funds which have been or will be made available for such purpose as set forth in item (iii) of the certificate mentioned in clause (d) of this Section, shall be not less than the cost of the Improvements to be constructed as estimated by the Consulting Engineers in item (iii) of the statement mentioned in clause (c) of this Section, and

(II) the percentage derived by dividing the amount shown in item (i) of the certificate mentioned in said clause (d) by the maximum amount of the Principal and Interest Requirements for any fiscal year thereafter on account of all bonds then outstanding and the bonds then requested to be authenticated and delivered as shown in item (ii) of such certificate shall be not less than one hundred thirty-five per centum (135%).

The proceeds (excluding accrued interest) of such bonds and the other funds mentioned in paragraph (I) above, if any, shall be paid by the State Treasurer simultaneously with the delivery of such bonds to the Trustee for deposit to the credit of a special construction fund appropriately designated and held in trust for the sole and exclusive purpose of paying the cost of such Improvements. All of the provisions of Article IV of this Indenture, except Section 404 thereof, which relate to the Project and to the Construction Fund shall apply to such Im-



provements and to such special construction fund to the extent that such provisions may be applicable. The amount received as accrued interest on such bonds shall be paid by the State Treasurer simultaneously with the delivery of such bonds to the Trustee for deposit to the credit of the Bond Interest Account.

**SECTION 211.** Until definitive bonds of any Series are ready for delivery, there may be executed, and upon request of the Commission the Trustee shall authenticate and deliver, in lieu of definitive bonds and subject to the same limitations and conditions, temporary printed, engraved or lithographed bonds, in the form of either coupon bonds in the denomination of \$5,000 or any multiple thereof, with or without coupons, or registered bonds without coupons in denominations of \$5,000 or any multiple thereof, or both, as the Commission by resolution may provide, substantially of the tenor hereinabove set forth and with such appropriate omissions, insertions and variations as may be required.

Until definitive bonds of any Series are ready for delivery, any temporary bond of such Series may, if so provided by the Commission by resolution, be exchanged at the principal office of the Trustee, without charge to the holder thereof, for an equal aggregate principal amount of temporary coupon bonds or of temporary registered bonds without coupons, or both, of like tenor, of the same Series and bearing interest at the same rate.

If temporary bonds shall be issued, the Commission shall cause the definitive bonds to be prepared and to be executed and delivered to the Trustee, and the Trustee, upon presentation to it at its principal office of any temporary bond accompanied by all unpaid coupons, if any, shall cancel the same and authenticate and deliver in exchange therefor at the place designated by the holder, without charge to the holder thereof, a definitive bond or bonds of an equal aggregate principal amount, of the same Series and bearing interest at the same rate as the temporary bond surrendered. Upon any such exchange all coupons appertaining to definitive coupon bonds and representing interest theretofore paid shall be detached and cancelled by the Trustee. Until so exchanged the temporary bonds shall in all respects be entitled to the same benefit and security of this Indenture as the definitive bonds to be issued and authenticated hereunder. Interest on temporary coupon bonds, when due and

(Sec. 212)

34

payable, if the definitive bonds shall not be ready for exchange, shall be paid on presentation of such temporary coupon bonds and notation of such payment shall be endorsed thereon, or such interest shall be paid upon the surrender of the appropriate coupons if coupons representing such interest shall be attached to such temporary bonds.

**SECTION 212.** In case any bond secured hereby shall become mutilated or be destroyed or lost, the Commission shall cause to be executed, and the Trustee shall authenticate and deliver, a new bond of like date and tenor in exchange and substitution for and upon the cancellation of such mutilated bond and its interest coupons, if any, or in lieu of and in substitution for such bond and its coupons, if any, destroyed or lost, upon the holder's paying the reasonable expenses and charges of the Commission and the Trustee in connection therewith and, in the case of a bond destroyed or lost, his filing with the Trustee evidence satisfactory to it and to the Commission that such bond and coupons, if any, were destroyed or lost, and of his ownership thereof, and furnishing the Commission and the Trustee with indemnity satisfactory to them.

### ARTICLE III,

#### REDEMPTION OF BONDS.

**SECTION 301.** The bonds issued under the provisions of Section 208 of this Indenture at the time outstanding may be redeemed prior to their maturity either

(a) in whole, on any date not earlier than January 1, 1976, at the option of the Commission, from any moneys that may be made available for such purpose, at the principal amount of the bonds to be redeemed, together with the interest accrued thereon to the date fixed for redemption, plus a premium of 4% of such principal amount if redeemed on or prior to December 31, 1980, 3% if redeemed thereafter and on or prior to December 31, 1985, 2% if redeemed thereafter and on or prior to December 31, 1990, 1% if redeemed thereafter and on or prior to December 31, 1995, ½ of 1% if redeemed thereafter and on or prior to December 31, 2000, and without premium if redeemed thereafter, or

§5

(b) in part, on any interest payment date not earlier than January 1, 1971, from moneys in the Sinking Fund, at the principal amount of the bonds to be redeemed, together with the interest accrued thereon to the date fixed for redemption, plus a premium of 3% of such principal amount if redeemed on or prior to July 1, 1975, 2% if redeemed thereafter and on or prior to July 1, 1980, 1% if redeemed thereafter and on or prior to July 1, 1985,  $\frac{1}{2}$  of 1% if redeemed thereafter and on or prior to July 1, 1990, and without premium if redeemed thereafter.

The bonds of any other Series issued under the provisions of this Indenture shall be made subject to redemption, both in whole and in part and at such times and prices, as may be provided in the resolution authorizing the issuance of such bonds; provided, however, that any redemption in part may be made only on an interest payment date and any premium to be paid on the redemption of any such bonds shall not exceed five per centum (5%) of the principal amount of the bonds to be redeemed.

If less than all of the bonds of a Series shall be called for redemption, the particular bonds or portions of registered bonds without coupons to be redeemed from such Series shall be selected by lot by the Trustee in such manner as the Trustee in its discretion may determine; provided, however, that the portion of any registered bond without coupons to be redeemed shall be in the principal amount of \$5,000 or some multiple thereof, and that, in selecting bonds for redemption, the Trustee shall treat each registered bond without coupons as representing that number of coupon bonds which is obtained by dividing the principal amount of such registered bond without coupons by \$5,000.

SECTION 902. At least thirty (30) days before the redemption date of any bonds the Trustee shall cause a notice of any such redemption, either in whole or in part, signed by the Trustee, (a) to be published once in a daily newspaper of general circulation published in the City of Norfolk, Virginia, and in a daily newspaper of general circulation or a financial journal published in the Borough of Manhattan, City and State of New York, (b) to be filed with the Paying Agents, and (c) to be mailed, postage prepaid, to all registered owners of bonds or portions

(Sec. 303)

36

of bonds to be redeemed at their addresses as they appear on the registration books hereinabove provided for, but failure so to file or mail any such notice shall not affect the validity of the proceedings for such redemption. Each such notice shall set forth the date fixed for redemption, the redemption price to be paid and, if less than all of the bonds of a Series then outstanding shall be called for redemption, the distinctive numbers and letters, if any, of such bonds to be redeemed and, in the case of registered bonds without coupons to be redeemed in part only, the portion of the principal amount thereof to be redeemed. In case any registered bond without coupons is to be redeemed in part only, the notice of redemption which relates to such bond shall state also that on or after the redemption date, upon surrender of such bond, a new bond or bonds in principal amount equal to the unredeemed portion of such bond will be issued.

**SECTION 303.** On the date so designated for redemption, notice having been published in the manner and under the conditions hereinabove provided and monies for payment of the redemption price and the accrued interest being held in separate accounts by the Trustee or by the Paying Agents in trust for the holders of the bonds or portions thereof to be redeemed, all as provided in this Indenture, the bonds or portions of registered bonds without coupons so called for redemption shall become and be due and payable at the redemption price provided for redemption of such bonds or portions of bonds on such date, interest on the bonds or portions of bonds so called for redemption shall cease to accrue, the coupons for interest on any coupon bonds so called for redemption payable subsequent to the redemption date shall be void, such bonds or portions of bonds shall cease to be entitled to any benefit or security under this Indenture, and the holders or registered owners of such bonds or portions of bonds shall have no rights in respect thereof except to receive payment of the redemption price thereof and the accrued interest and, to the extent provided in Section 305 of this Article, to receive bonds for any unredeemed portions of registered bonds without coupons.

**SECTION 304.** All unpaid coupons which appertain to coupon bonds so called for redemption and which shall have become due and payable on or prior to the date of redemption designated in such notice shall continue to be payable to the bearers severally and respectively upon the presentation and surrender of such coupons.

SECTION 305. In case part but not all of an outstanding registered bond without coupons shall be selected for redemption, the registered owner thereof or his attorney or legal representative shall present and surrender such bond to the Trustee for payment of the principal amount thereof so called for redemption, and the Commission shall execute and the Trustee shall authenticate and deliver to or upon the order of such registered owner or his legal representative, without charge therefor, for the unredeemed portion of the principal amount of the registered bond without coupons so surrendered, either coupon bonds or a registered bond or bonds without coupons of the same Series, at the option of such registered owner or his attorney or legal representative, of any denomination or denominations authorized by this Indenture and bearing interest at the same rate.

SECTION 306. Coupon bonds so redeemed and all unmatured coupons appertaining thereto, and registered bonds without coupons so presented and surrendered, shall be cancelled upon the surrender thereof.

SECTION 307. Bonds and portions of bonds which have been duly called for redemption under the provisions of this Article, or with respect to which irrevocable instructions to call for redemption at the earliest redemption date have been given to the Trustee in form satisfactory to it, and for the payment of the redemption price and the accrued interest of which moneys shall be held in separate accounts by the Trustee or by the Paying Agents in trust for the holders of the bonds or portions thereof to be redeemed, all as provided in this Indenture, shall not thereafter be deemed to be outstanding under the provisions of this Indenture.

#### ARTICLE IV.

##### CUSTODY AND APPLICATION OF PROCEEDS OF BONDS.

SECTION 401. A special fund is hereby created and designated "State of Virginia 1965 Toll Project Construction Fund" (herein sometimes called the "Construction Fund"), to the credit of which such deposits shall be made as are required by the provisions of Sections 208 and 209 of this Indenture.

(Sec. 402)

38

The moneys in the Construction Fund shall be held by the Trustee in trust and, subject to the provisions of Section 410 of this Article, shall be applied to the payment of the cost of the Project and, pending such application, shall be subject to a lien and charge in favor of the holders of the bonds issued and outstanding under this Indenture and for the further security of such holders until paid out or transferred as herein provided.

SECTION 402. Payment of the cost of the Project shall be made from the Construction Fund. All payments from the Construction Fund shall be subject to the provisions and restrictions set forth in this Article, and the Commission covenants that it will not cause or permit to be paid from the Construction Fund any sums except in accordance with such provisions and restrictions.

SECTION 403. For the purposes of this Indenture the cost of the Project shall embrace the cost of constructing the same, and the cost of grade separations and any road relocations deemed necessary by the Commission in connection therewith, and, without intending thereby to limit or restrict any proper definition of such cost under the provisions of the State Revenue Bond Act, shall include the following:

(a) obligations incurred for labor and materials and to contractors, builders and materialmen in connection with the construction of the Project, for machinery and equipment, for the restoration or relocation of property damaged or destroyed in connection with such construction, for the removal or relocation of structures and for the clearing of lands;

(b) the cost of acquiring by purchase, if such purchase shall be deemed expedient, and the amount of any deposit in court or award or final judgment in or any settlement or compromise of any proceeding to acquire by eminent domain, such lands, property, rights, rights of way, easements, franchises and other interests as may be deemed necessary or convenient by the Commission and the Consulting Engineers for the construction and operation of the Project, options and partial payments thereon, the cost of demolishing or removing any buildings or structures on land so acquired, including the cost of acquiring any lands to which such buildings or structures may be moved, and the amount of any

damages incident to or consequent upon the construction and operation of the Project;

(c) interest on the bonds issued under the provisions of Section 208 and on any bonds issued under the provisions of Section 209 of this Indenture prior to the commencement of and during the construction of the Project and for one year after the completion of construction of the Project, and the reasonable fees of the Trustee and the Paying Agents for the payment of such interest;

(d) the fees and expenses of the Trustee for its services prior to and during construction, taxes or other municipal or governmental charges lawfully levied or assessed during construction upon the Project or any property acquired therefor, and premiums on insurance (if any) in connection with the Project during construction;

(e) the cost of borings and other preliminary investigations to determine foundation or other conditions, expenses necessary or incident to determining the feasibility or practicability of constructing the Project, and fees and expenses of engineers for making traffic studies, surveys and estimates of costs and of revenues and other estimates and for preparing plans and specifications and supervising construction, as well as for the performance of all other duties of engineers set forth herein in relation to the construction of the Project and the issuance of bonds therefor;

(f) expenses of administration properly chargeable to the Project, legal expenses and fees, financing charges, cost of audits and of preparing and issuing the bonds, and all other items of expense not elsewhere in this Section specified incident to the construction and equipment of the Project, the financing thereof, the placing of the same in operation (including the initial premiums on any insurance required or obtained under the provisions of this Indenture), and the acquisition of lands, property, rights, rights of way, easements, franchises and interests therefor, including abstracts of title, title insurance, cost of surveys and other expenses in connection with such acquisition; and

(g) any obligation or expense heretofore or hereafter incurred by the Commission or any member or officer thereof in connection with the Project for any of the foregoing purposes.

(Sec. 404)

40

**SECTION 404.** The Trustee shall set aside from the proceeds of the bonds issued under the provisions of Section 208 of this Indenture and credit to a separate interest account in the Construction Fund the amount required for paying the interest which will become due and payable on said bonds on each interest payment date to and including January 1, 1969, such period being less than the estimated period of construction plus one year after the completion of construction of the Project. In the event that bonds shall be issued under the provisions of Section 209 of this Indenture, the Trustee shall set aside from the proceeds of such bonds and credit to said separate interest account the amount required for paying the interest which will become due and payable on such bonds on each interest payment date to and including January 1, 1969. Without requisition from the Commission or other or further authority than is contained herein, the Trustee shall apply the moneys to the credit of said separate interest account to the payment of such interest as it becomes due and payable.

**SECTION 405.** Payments from the Construction Fund, except the payments which the Trustee is authorized to make under the provisions of Section 404 of this Article, shall be made in accordance with the provisions of this Section. Before any such payment shall be made the Commission shall file with the Trustee:

(a) a requisition, signed by the State Highway Commissioner or by such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose, stating

- (i) the item number of each such payment,
- (ii) the name of the person, firm or corporation to whom each such payment is due,
- (iii) the respective amounts to be paid, and
- (iv) the purpose by general classification for which each obligation to be paid was incurred;

(b) a certificate, signed by the State Highway Commissioner or by such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose and attached to such requisition, certifying:

- (i) that obligations in the stated amounts have been incurred by the Commission and are presently due and payable



and that each item thereof is a proper charge against the Construction Fund and has not been paid,

(ii) that there has not been filed with or served upon the Commission notice of any lien, right to lien or attachment upon, or claim affecting the right of any such persons, firms or corporations to receive payment of, the respective amounts stated in such requisition which has not been released or will not be released simultaneously with the payment of such obligation, and

(iii) that such requisition contains no item representing payment on account of any retained percentage which the Commission is at the date of such requisition entitled to retain, unless payment of such retained percentage shall be approved by the Consulting Engineers; and

(c) a certificate, signed by the Consulting Engineers and attached to such requisition, certifying their approval thereof.

Upon receipt of each requisition and accompanying certificates the Trustee shall transfer from the Construction Fund to the credit of a special checking account in its commercial department in the name of the State Treasurer an amount equal to the total of the amounts to be paid as set forth in such requisition, the amount so transferred to be used solely for the payment of the obligations set forth in such requisition. The Commission shall thereupon file with the State Comptroller a duplicate of each such requisition and accompanying certificates and a voucher, signed by the State Highway Commissioner or by such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose, covering each item set forth in such requisition and thereupon the State Comptroller shall issue warrants for the payment by the State Treasurer of each such item, and each such payment shall be made by the State Treasurer by check drawn on such special checking account. Moneys transferred to the credit of such special checking account shall be deemed to be a part of the Construction Fund until paid out as above provided. In making such transfers the Trustee may rely upon such requisitions and accompanying certificates. If for any reason the Commission should decide prior to the payment of any item in a requisition not to pay such item, the State Highway Commissioner or such other officer or employee of

(Sec. 406)

the Commission as may be designated by the State Highway Commissioner for such purpose shall give notice of such decision to the Trustee and, in case the amount of such item shall have been included in any such transfer, the State Treasurer shall, upon voucher and warrant as above provided, thereupon pay the amount of such item by check similarly signed and drawn on such special checking account to the Trustee for deposit to the credit of the Construction Fund.

In addition to such transfers, the Trustee shall pay from the Construction Fund to the Commission upon its requisitions therefor, signed by the State Highway Commissioner or by such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose, at one time or from time to time, a sum or sums aggregating not more than Fifty Thousand Dollars (\$50,000), exclusive of reimbursements as hereinafter in this Section authorized, such sums and such reimbursements to be used by the Commission as a revolving fund for the payment of items of cost and expenses referred to in Section 403 of this Article which can not conveniently be paid as here in otherwise provided. Such moneys shall be deemed to be a part of the Construction Fund until paid out as above provided. The revolving fund shall be reimbursed by the Trustee from time to time for such items of cost and expenses so paid by payments from the Construction Fund upon requisition of the Commission, filed with the Trustee and similarly signed, specifying the payee, the amount and the purpose by general classification of each payment from the revolving fund for which such reimbursement is requested, and stating that each such item of cost or expense so paid was a necessary item of cost or expense within said Section 403 and that such cost or expense could not conveniently be paid except from such revolving fund, and a certificate, signed by the Consulting Engineers and attached to such requisition, certifying their approval thereof. In making such payments and reimbursements the Trustee may rely upon such requisitions and certificates.

**SECTION 406.** If any requisition contains any item for the payment of the purchase price or cost of any lands, property, rights, rights of way, easements, franchises or interests in or relating to lands, there shall be attached to such requisition, in addition to the certificates mentioned in Section 405 of this Article,

(a) a certificate, signed by the State Highway Commissioner or by such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose, stating that such lands, property, rights, rights of way, easements, franchises or interests are being acquired in furtherance of the acquisition of the right of way for the Project or in furtherance of the construction or operation of the Project, and

(b) a written opinion of the Attorney General or an Assistant Attorney General of the Commonwealth stating that the signer is of the opinion that the Commission is authorized to acquire such lands, property, rights, rights of way, easements, franchises or interests, and that the State will have upon the payment of such item title in fee simple to, or perpetual easements for the purposes of the Project over, such lands, free from liens, encumbrances and defects of title except liens, encumbrances or defects of title which do not have a materially adverse effect upon the Commission's right to use such lands or properties for the purposes intended or which have been adequately guarded against by a bond or other form of indemnity, or, if such payment be a deposit in court in any proceeding to acquire any interest in or relating to lands by eminent domain or a payment for an option to purchase or for a quitclaim deed or a lease or a release or on a contract to purchase or is otherwise for the acquisition of a right or interest in lands less than a fee simple or a perpetual easement, or if such payment be a part payment for any such purpose, the written approval of the acquisition of such lesser right or interest or of such deposit or part payment signed by the Attorney General or an Assistant Attorney General, or, in lieu of the opinion required by this clause, a firm undertaking by a reputable title insurance company to issue its title insurance policy and a written opinion of the Attorney General or an Assistant Attorney General stating that, in the opinion of the signer, any objections or exceptions to be noted therein are not of a material nature.

**SECTION 407.** The Commission covenants that the Project will be constructed on land which is owned or can be acquired by the Commission in the name of the State of Virginia in fee simple or over which the Commission shall have acquired or can acquire in the name of the State

(Sec. 408)

of Virginia perpetual easements for the purposes of the Project, free from all liens, encumbrances and defects of title except liens, encumbrances or defects of title which do not have a materially adverse effect upon the Commission's right to use such lands or properties for the purposes intended.

SECTION 408. All requisitions, certificates and opinions received by the Trustee, as required in this Article as conditions of payment from the Construction Fund, may be relied upon by the Trustee.

SECTION 409. The Commission covenants that, at least once in each three months' period after the delivery of the bonds under the provisions of Section 208 of this Indenture and until the construction of the Project shall have been completed, as evidenced by the filing with the Trustee of the certificate and opinion referred to in Section 410 of this Article, it will prepare a progress report in connection with the acquisition of the right of way for the Project and will cause the Consulting Engineers to prepare a progress report in connection with the construction of the Project, including their current estimates of

(i) the date on which the Project will be opened for traffic, unless the Project shall have been opened for traffic prior to the date of such report,

(ii) the date on which the construction of the Project will be completed,

(iii) the cost of the Project (showing separately the amount for each general classification set forth in the engineering report mentioned in the preambles of this Indenture), exclusive of financing charges and interest during construction, and

(iv) the amount of funds required each three months during the remaining estimated period of construction to meet such cost, accompanied by a statement of progress of such construction,

and comparisons between such times, amounts and progress and the estimated times and amounts and the progress schedule set forth in said engineering report and in the statement filed under the provisions of clause (b) of said Section 208. Copies of such progress reports shall be filed with the Trustee and the Commission and mailed by the Com-

mission to the principal underwriters and all bondholders who shall have filed their names and addresses with the Secretary of the Commission for such purpose.

The Commission further covenants that, at least once in each six (6) months after the delivery of the bonds under the provisions of said Section 208 and until the construction of the Project shall have been completed, it will cause an audit to be made by an independent firm of certified public accountants of recognized ability and standing, to be chosen by the Commission with the approval of the Trustee, covering all receipts and moneys then on deposit with or in the name of the Trustee and the Commission and any security held therefor, any investments thereof and all payments and disbursements made pursuant to the provisions of Sections 404 and 405 of this Article. Reports of each such audit shall be filed with the Trustee and the Commission and copies of such reports shall be mailed by the Commission to the principal underwriters, the Consulting Engineers and all bondholders who shall have filed their names and addresses with the Secretary of the Commission for such purpose.

SECTION 410. When the construction of the Project shall have been completed, which fact shall be evidenced to the Trustee by a certificate stating the date of such completion, signed by the State Highway Commissioner or the Chief Engineer and by the Secretary or an Assistant Secretary of the Commission and approved by the Consulting Engineers, accompanied by an opinion of the Attorney General or an Assistant Attorney General of the Commonwealth stating that the Commission has acquired in the name of the State of Virginia title in fee simple to, or perpetual easements for the purposes of, the Project and all of the property necessary and incident thereto, free from all liens, encumbrances and defects of title except liens, encumbrances or defects of title which do not have a materially adverse effect upon the Commission's right to use such lands or properties for the purposes intended or which have been adequately guarded against by a bond or other form of indemnity, that there are no unsatisfied mechanics', laborers', contractors' or materialmen's liens on any property constituting a part of the Project or on file in any public office where the same should be filed in order to be valid liens against any part of such property, and that, in the opinion of the signer, the time within which such liens can be

(Sec. 410)

filed has expired, the balance in the Construction Fund (excluding any amount held for the credit of the separate interest account therein under the provisions of Section 404 of this Article), including any amount in the revolving fund created by Section 405 of this Article, not reserved by the Commission with the approval of the Consulting Engineers for the payment of any remaining part of the cost of the Project, shall be transferred by the Trustee or deposited by the State Treasurer with the Trustee, as the case may be, to the credit of the Reserve Account; provided, however, that the Commission by resolution may from time to time, with the approval of the Consulting Engineers, authorize and direct the Trustee to transfer from the Construction Fund to the credit of the Reserve Account all or a portion of the moneys held for the credit of the Construction Fund in excess of the amount then estimated by the Commission, with the approval of the Consulting Engineers, to be sufficient for the purpose of providing funds for completing payment of the cost of the Project.

If at any time after such transfer there shall be filed with the Trustee a certificate, signed by the State Highway Commissioner or the Chief Engineer and by the Secretary or an Assistant Secretary of the Commission and approved by the Consulting Engineers, stating that the cost of the Project has been finally determined and that the part of such cost then remaining unpaid exceeds the amount reserved by the Trustee under this Section, an amount equal to such excess shall forthwith be retransferred by the Trustee from the Reserve Account to the Construction Fund and thereafter applied, upon requisition as above provided, to meet such unpaid cost; provided, however, that the amount so retransferred shall not exceed the amount transferred from the Construction Fund to the Reserve Account under the foregoing provisions of this Section. If at any time after such transfer or retransfer there shall be filed with the Trustee a certificate, similarly signed and approved, stating that the cost of the Project has been finally determined and that the amount reserved under this Section exceeds the part of such cost then remaining unpaid, an amount equal to such excess shall forthwith be transferred by the Trustee from the Construction Fund to the Reserve Account.

In making any such transfer or retransfer the Trustee may rely upon (a) a certificate filed with it by the Commission, signed by the State Highway Commissioner or the Chief Engineer and approved by

the Consulting Engineers, as to any items of such cost then remaining unpaid and as to any estimate in such certificate of the amount of any items of such cost the actual amount of which is not finally determined, and (b) a certificate, signed by the Attorney General or an Assistant Attorney General of the Commonwealth, as to the status and amount of any claims then outstanding affecting such cost. The Trustee may require the filing of such certificates as a condition of such transfer or retransfer.

#### ARTICLE V.

##### REVENUES AND FUNDS.

###### SECTION 501. The Commission covenants

(a) that before the Project or any part thereof is opened for traffic it will fix and place in effect an initial schedule of tolls for traffic using the Project, which schedule will be in substantial conformity with the tolls recommended by the Traffic Engineers in their traffic report mentioned in the preambles of this Indenture, subject to any change or revision which will not, in the opinion of the Traffic Engineers, result in producing less revenues,

(b) that it will not change the toll collecting facilities or change or revise the tolls for traffic using the Toll Road if, in the opinion of the Traffic Engineers, such change or revision will result in producing less revenues unless such change or revision, in the opinion of the Traffic Engineers, will still result in producing revenues sufficient to provide for the deposit to the credit of the Sinking Fund and the Improvement Fund in each fiscal year of an amount not less than

(i) the amount of estimated net revenues (over and above Current Expenses and deposits to the credit of the Reserve Maintenance Fund) for each such fiscal year as determined from the estimates set forth in said traffic report and in the engineering report of the Consulting Engineers mentioned in the preambles of this Indenture or, in case any additional bonds shall be issued under the provisions of Section 209 of this Indenture, such estimated net revenues plus an amount equal to such percentage thereof as is obtained by dividing

(Sec. 501)

the principal amount of such additional bonds by the principal amount of the bonds issued under the provisions of Section 208 of this Indenture, or

(ii) one hundred thirty-five per centum (135%) of the maximum amount of the Principal and Interest Requirements for any fiscal year thereafter on account of all bonds then outstanding,

whichever is the lesser amount, and

(c) that if the schedule of tolls then in effect for traffic using the Toll Road is not producing revenues sufficient to provide for the deposit to the credit of the Sinking Fund and the Improvement Fund in each fiscal year of an amount not less than one hundred twenty per centum (120%) of the Principal and Interest Requirements for such fiscal year, it will request the Traffic Engineers to make recommendations as to a revision of the schedule of tolls in order to produce the maximum amount of revenues possible and, upon receiving such recommendations, it will revise such schedule of tolls in order to produce the maximum amount of revenues possible; provided, however, that the Commission need not provide for the deposit to the credit of the Sinking Fund and the Improvement Fund of an amount in excess of the amount referred to in this clause.

The Commission further covenants that, if the amount deposited to the credit of the Sinking Fund and the Improvement Fund in any fiscal year shall be less than the amount referred to in clause (c) above for such fiscal year, it will, before the 15th day of February of the following fiscal year, request the Traffic Engineers to make recommendations as to a revision of the schedule of tolls in order to produce the maximum amount of revenues possible and, upon receiving such recommendations, it will revise such schedule of tolls in order to produce the maximum amount of revenues possible; provided, however, that the Commission need not provide for the deposit to the credit of the Sinking Fund and the Improvement Fund of an amount in excess of the amount referred to in said clause (c).

Anything in this Indenture to the contrary notwithstanding, if the Commission shall comply with all recommendations of the Traffic



Engineers (or such independent engineer or engineering firm or corporation as hereinafter provided for in this Section) in respect of tolls, it will not constitute an event of default under the provisions of clause (i) of Section 802 of this Indenture even though the amount deposited to the credit of the Sinking Fund and the Improvement Fund in any fiscal year shall be less than the amount referred to in clause (c) above for such fiscal year. In the event of any such deficiency and regardless of any recommendations of the Traffic Engineers or compliance therewith by the Commission, the Trustee or the holders of not less than fifteen per centum (15%) in aggregate principal amount of the bonds then outstanding may, however, and the Trustee shall, upon the written request of the holders of not less than ten per centum (10%) in aggregate principal amount of the bonds then outstanding and upon being indemnified to its satisfaction, institute and prosecute in a court of competent jurisdiction an appropriate action to compel the Commission to revise the schedule of tolls in order to produce the amount referred to in clause (c) above. The Commission covenants that it will adopt and charge tolls in compliance with any final order, decree or judgment entered in any such proceeding, or any modification thereof.

In the event that the Commission shall call upon the Traffic Engineers for their recommendations as hereinabove in this Section required and the Traffic Engineers, after such request by the Commission, shall fail to file with the Commission and with the Trustee such recommendations in writing within sixty (60) days after such request, the Trustee shall forthwith designate and appoint an independent engineer or engineering firm or corporation having a nation-wide and favorable repute for skill and experience in such work in lieu of the Traffic Engineers to make a survey and study and recommendations as to a revision of the schedule of tolls, which recommendations shall be reported in writing to the Commission and to the Trustee on or before the 1st day of August following. Such written report shall for all purposes be considered to be the equivalent of and substitute for the recommendations of the Traffic Engineers hereinabove mentioned.

The Commission further covenants that upon its making any request to the Traffic Engineers for their recommendations as to a revision of the schedule of tolls or upon the receipt of any such recommendations from the Traffic Engineers or upon the adoption by

(Sec. 502)

50

the Commission of any revised schedule of tolls, certified copies of any such request, recommendations or revised schedule of tolls so adopted will forthwith be filed with the Trustee and mailed by the Commission to the principal underwriters.

SECTION 502. The Commission covenants that tolls will be classified in a reasonable way to cover all traffic, so that the tolls may be uniform in application to all traffic falling within any reasonable class regardless of the status or character of any person, firm or corporation participating in the traffic, and that no reduced rate of toll will be allowed within any such class except that, subject to the provisions of Section 501 of this Article, provision may be made for the use of commutation or other tickets or privileges based upon frequency or volume. The Commission further covenants that no free vehicular passage will be permitted on the Toll Road or any part thereof except to vehicles of members, officers and employees of the Commission, the State Department of Highways and the Division of Motor Vehicles while they are in the discharge of their official duties, to vehicles of any fire or police department of the State of Virginia or any political subdivision thereof while operated in the discharge of official duties, to ambulances owned or operated by a political subdivision of the State of Virginia or a non-profit organization while in the discharge of their duties and to vehicles owned or operated by agents and independent contractors of the Commission which are used in connection with the maintenance or operation of the Toll Road and except as is permitted on account of the interchanges and the toll collecting facilities described in the traffic report of the Traffic Engineers mentioned in the preambles of this Indenture.

SECTION 503. A special fund is hereby created in the State Treasury and designated "State of Virginia 1965 Toll Project Revenue Fund" (herein sometimes called the "Revenue Fund"). The Commission covenants that all tolls and other revenues derived from the operation or ownership of the Toll Road will be collected by the Commission and deposited daily, so far as practicable, in a state depository, in the name of the State Treasurer for the credit of the Revenue Fund.

SECTION 504. The Commission covenants that it will cause the Consulting Engineers employed by it under the provisions of Section 706 of this Indenture, among such other duties as may be imposed upon

them by the Commission or by this Indenture, to make an inspection of the Toll Road at least once in each year following the opening of the Project for traffic and, on or before the 1st day of October in each fiscal year after such opening, to submit to the Commission a report setting forth (a) their findings whether the Toll Road has been maintained in good repair, working order and condition and (b) their recommendations as to

(i) the proper maintenance, repair and operation of the Toll Road during the ensuing fiscal year and an estimate of the amount of money necessary for such purposes,

(ii) insurance to be carried under the provisions of Sections 707 and 708 of this Indenture,

(iii) the amount, if any, that should be transferred during the ensuing fiscal year to the credit of the Reserve Maintenance Fund for the purposes set forth in Section 509 of this Article, and

(iv) the amount, if any, that should be transferred during the ensuing fiscal year to the credit of the Improvement Fund for the purposes set forth in Section 512 of this Article.

The Commission further covenants that it will cause the Consulting Engineers to submit to the Commission at least three months prior to the opening of the Project for traffic a report setting forth their recommendations with respect to the matters set forth in items (i), (ii), (iii) and (iv) of clause (b) above for the period of time from the opening of the Project for traffic until the close of the then current fiscal year if the Project shall be opened for traffic before October 1 of such fiscal year, and until the close of the ensuing fiscal year if the Project shall be opened for traffic on or after October 1 of a fiscal year.

Promptly after the receipt of such reports by the Commission, copies thereof shall be filed with the Trustee and mailed by the Commission to the Traffic Engineers, the principal underwriters and all bondholders who shall have filed their names and addresses with the Secretary of the Commission for such purpose.

(Sec. 505)

52

The Commission further covenants that, if any such report of the Consulting Engineers shall set forth that the Toll Road has not been maintained in good repair, working order and condition, it will, from the revenues of the Toll Road and any other moneys available therefor, promptly restore the Toll Road to good repair, working order and condition with all expedition practicable in accordance with the recommendations of the Consulting Engineers.

SECTION 505. The Commission covenants that on or before the 10th day of October in each fiscal year it will prepare a preliminary budget of Current Expenses for the ensuing fiscal year. On or before the 20th day of October in such fiscal year copies of each such preliminary budget shall be filed with the Trustee and mailed by the Commission to the Consulting Engineers, the Traffic Engineers, the principal underwriters and all bondholders who shall have filed their names and addresses with the Secretary of the Commission for such purpose. The Commission further covenants that it will comply with any reasonable request of the Trustee or the Consulting Engineers as to the classifications in which such budget shall be prepared, particularly with respect to the divisions into which such budget shall be divided. Each such budget shall show separately what classifications, or portions thereof, of Current Expenses are to be paid from available funds other than the revenues of the Toll Road.

If the Trustee, the holders of five per centum (5%) in aggregate principal amount of the bonds then outstanding or a majority of the principal underwriters shall so request the Commission in writing on or before the 1st day of November in any fiscal year, the Commission shall hold a public hearing on or before the 20th day of November in such fiscal year at which the Trustee, any bondholder or any principal underwriter may appear in person or by agent or attorney and present any objections he may have to the final adoption of such budget. Notice of the time and place of such hearing shall be mailed by the Commission at least ten (10) days prior to the date fixed by the Commission for the hearing to the Trustee, the Consulting Engineers, the Traffic Engineers, the principal underwriters and all bondholders who shall have filed their names and addresses with the Secretary of the Commission for such purpose.

The Commission further covenants that on or before the 1st day of December in such fiscal year it will finally adopt the budget of Current Expenses for the ensuing fiscal year (herein sometimes called the "Annual Budget") and that the total appropriations in any division thereof will not exceed the total appropriations in the corresponding division in the preliminary budget. On or before the 10th day of December in such fiscal year copies of the Annual Budget shall be filed with the Trustee and mailed by the Commission to the Consulting Engineers, the Traffic Engineers, the principal underwriters and all bondholders who shall have filed their names and addresses with the Secretary of the Commission for such purpose.

If for any reason the Commission shall not have adopted the Annual Budget before the first day of any fiscal year, the preliminary budget for such fiscal year, if approved by the Consulting Engineers, or, if there is none so approved, the budget for the preceding fiscal year, shall, until the adoption of the Annual Budget, be deemed to be in force and shall be treated as the Annual Budget under the provisions of this Article.

The Commission may at any time adopt an amended or supplemental Annual Budget for the remainder of the then current fiscal year, but no such amended or supplemental Annual Budget shall be effective until it shall be approved by the Consulting Engineers, and when so approved the Annual Budget so amended or supplemented shall be treated as the Annual Budget under the provisions of this Article. Copies of any such amended or supplemental Annual Budget shall be filed with the Trustee and mailed by the Commission to the Consulting Engineers, the Traffic Engineers, the principal underwriters and all bondholders who shall have filed their names and addresses with the Secretary of the Commission for such purpose.

The Commission further covenants that the Current Expenses incurred in any fiscal year will not exceed the reasonable and necessary amount thereof, and that it will not expend any amount or incur any obligations for maintenance, repair and operation of the Toll Road in excess of the amounts provided for Current Expenses in the Annual Budget, except amounts which may be paid from the Reserve Maintenance Fund. Nothing in this Section contained shall limit the amount

(Sec. 505)

which the Commission may expend for Current Expenses in any fiscal year provided any amounts expended therefor in excess of the Annual Budget shall be received by the Commission from some source other than the revenues of the Toll Road and the Commission shall not make any reimbursement therefor from such revenues.

The Commission further covenants that, any of the foregoing provisions of this Section to the contrary notwithstanding, in the fiscal year in which the Project shall be opened for traffic it will, on or before the 10th day following the date (herein called the "report date") on which the Consulting Engineers shall have submitted their report to the Commission pursuant to the provisions of the second paragraph of Section 504 of this Article, prepare a preliminary budget of Current Expenses for the period of time for which such report shall have been submitted, and copies of such preliminary budget shall be filed and mailed on or before the 20th day following the report date. If the Trustee, the holders of five per centum (5%) in aggregate principal amount of the bonds then outstanding or a majority of the principal underwriters shall so request the Commission in writing on or before the 40th day following the report date, the Commission shall hold a public hearing on or before the 60th day following the report date. The Commission further covenants that on or before the 70th day following the report date it will finally adopt the budget of Current Expenses for the period for which said preliminary budget shall have been prepared (herein called the "Initial Budget"), and copies thereof shall be filed and mailed within ten (10) days after the adoption thereof. If for any reason the Commission shall not have adopted the Initial Budget before the Project shall have been opened for traffic, the preliminary budget for such period, if approved by the Consulting Engineers, or, if there is none so approved, the recommendations of the Consulting Engineers in their report submitted to the Commission pursuant to the provisions of said second paragraph of Section 504 as to the proper maintenance, repair and operation of the Project for such period, shall, until the adoption of the Initial Budget, be deemed to be in force and shall be treated as the Initial Budget under the provisions of this paragraph. Except as to any such provisions which may conflict with the provisions of this paragraph, all of the foregoing provisions of this Section shall be applicable to the preliminary budget and the Initial Budget provided for in this paragraph and to all action required, taken

or permitted in connection therewith or relating thereto. Except as herein provided, all of the provisions of this Indenture with respect to the Annual Budget shall be applicable to the Initial Budget.

**SECTION 506.** A special fund is hereby created and designated "1965 Revenue Fund-Trustee Account", to be held and applied in accordance with the provisions of this Article. On or before the 7th day of each month the State Highway Commissioner, or such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose, shall issue a voucher directing the issuance of a warrant by the State Comptroller for payment by the State Treasurer of all moneys held as of the last day of the preceding month for the credit of the Revenue Fund pursuant to the provisions of Section 503 of this Article to the Trustee for deposit to the credit of the 1965 Revenue Fund-Trustee Account.

Payments from the 1965 Revenue Fund-Trustee Account, except the withdrawals which the Trustee is authorized to make as provided in Section 507 of this Article, shall be made in accordance with the provisions of this Section. Before any such payment shall be made the Commission shall file with the Trustee:

(a) a requisition, signed by the State Highway Commissioner or by such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose, stating

- (i) the item number of each such payment,
- (ii) the name of the person, firm or corporation to whom each such payment is due,
- (iii) the respective amounts to be paid, and
- (iv) the purpose by general classification for which each obligation to be paid was incurred; and

(b) a certificate, signed by the State Highway Commissioner or by such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose and attached to such requisition, certifying:

- (i) that obligations in the stated amounts have been incurred by the Commission and are presently due and payable

(Sec. 506)

58

and that each item thereof was properly incurred as an item of Current Expenses and has not been paid,

(ii) that there has not been filed with or served upon the Commission notice of any lien, right to lien or attachment upon, or claim affecting the right of any such persons, firms or corporations to receive payment of, the respective amounts stated in such requisition which has not been released or will not be released simultaneously with the payment of such obligation, and

(iii) that the total amount of such payments will not be in excess of the unencumbered balance of the Annual Budget or any amendment thereof or supplement thereto.

Upon receipt of each requisition and accompanying certificate the Trustee shall transfer from the 1965 Revenue Fund-Trustee Account to the credit of a special checking account in its commercial department in the name of the State Treasurer an amount equal to the total of the amounts to be paid as set forth in such requisition, the amount so transferred to be used solely for the payment of the obligations set forth in such requisition. The Commission shall thereupon file with the State Comptroller a duplicate of each such requisition and accompanying certificate and a voucher, signed by the State Highway Commissioner or by such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose, covering each item set forth in such requisition and thereupon the State Comptroller shall issue warrants for the payment by the State Treasurer of each such item, and each such payment shall be made by the State Treasurer by check drawn on such special checking account. Moneys transferred to the credit of such special checking account shall be deemed to be a part of the 1965 Revenue Fund-Trustee Account until paid out as above provided. In making such transfers the Trustee may rely upon such requisitions and accompanying certificate. If for any reason the Commission should decide prior to the payment of any item in a requisition not to pay such item, the State Highway Commissioner or such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such pur-



pose shall give notice of such decision to the Trustee and, in case the amount of such item shall have been included in any such transfer, the State Treasurer shall, upon voucher and warrant as above provided, thereupon pay the amount of such item by check similarly signed and drawn on such special checking account to the Trustee for deposit to the credit of the 1965 Revenue Fund-Trustee Account.

In addition to such transfers, the Trustee shall pay from the 1965 Revenue Fund-Trustee Account to the Commission upon its requisitions therefor, signed by the State Highway Commissioner or by such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose, at one time or from time to time, a sum or sums aggregating not more than Fifty Thousand Dollars (\$50,000), exclusive of reimbursements as hereinafter in this Section authorized, such sums and such reimbursements to be used by the Commission as a revolving fund for the payment of Current Expenses which can not conveniently be paid as herein otherwise provided. Such moneys shall be deemed to be a part of the 1965 Revenue Fund-Trustee Account until paid out as above provided. The revolving fund shall be reimbursed by the Trustee from time to time for such expenses so paid by payments from the 1965 Revenue Fund-Trustee Account upon requisition of the Commission, filed with the Trustee and similarly signed, specifying the payee, the amount and the purpose by general classification of each payment from the revolving fund for which such reimbursement is requested, and stating that each such expense so paid was a necessary item of Current Expenses, that such expense could not conveniently be paid except from such revolving fund, and that such payments were not in excess of the unencumbered balance of the Annual Budget or any amendment thereof or supplement thereto. In making such payments and reimbursements the Trustee may rely upon such requisitions.

**SECTION 507.** A special fund is hereby created and designated "State of Virginia Toll Revenue Bonds (Series 1965) Interest and Sinking Fund" (herein sometimes called the "Sinking Fund"). There are hereby created three separate accounts in the Sinking Fund designated "Bond Interest Account", "Reserve Account" and "Redemption Account", respectively. Two additional special funds are hereby

(Sec. 507)

created and designated "State of Virginia 1965 Toll Project Reserve Maintenance Fund" (herein sometimes called the "Reserve Maintenance Fund") and "State of Virginia 1965 Toll Project Improvement Fund" (herein sometimes called the "Improvement Fund").

The moneys in each of said Funds and Accounts shall be held by the Trustee in trust and applied as hereinafter provided with respect to each such Fund or Account and, pending such application, shall be subject to a lien and charge in favor of the holders of the bonds issued and outstanding under this Indenture and for the further security of such holders until paid out or transferred as herein provided.

It shall be the duty of the Trustee, on or before the 27th day of each month after the opening of the Project or any part thereof for traffic, to withdraw from the 1965 Revenue Fund-Trustee Account an amount equal to the amount of all moneys held for the credit of said Account on the last day of the preceding month less the amount in the revolving fund therein and an amount (to be held as a reserve for Current Expenses) equal to twenty per centum (20%) of the amount shown by the Annual Budget to be necessary for Current Expenses for the current fiscal year, or of the amount shown by the Initial Budget to be necessary for Current Expenses for the period covered thereby, as the case may be, and deposit the sum so withdrawn to the credit of the following Accounts or Funds in the following order:

(a) to the credit of the Bond Interest Account, such amount thereof (or the entire sum so withdrawn if less than the required amount) as may be required to make the amount then to the credit of the Bond Interest Account equal to the amount of interest then or to become within the next ensuing six (6) months due and payable on all bonds then outstanding, except any interest which the Trustee is required to pay from the separate interest account in the

Construction Fund under the provisions of Section 404 of this Indenture;

(b) to the credit of the Reserve Maintenance Fund, such amount, if any, of any balance remaining after making the deposit under clause (a) above (or the entire balance if less than the required amount) as may be required to make the amount deposited in the current fiscal year to the credit of the Reserve Maintenance Fund equal to the amount recommended by the Consulting Engineers, as provided by Section 504 of this Article, to be deposited to the credit of said Fund during such fiscal year; provided, however, that if the amount so deposited to the credit of said Fund in any fiscal year shall be less than the amount recommended by the Consulting Engineers, the requirement therefor shall nevertheless be cumulative and the amount of any such deficiency in any fiscal year shall be added to the amount otherwise required to be deposited in each fiscal year thereafter until such time as such deficiency shall have been made up, unless such requirement shall have been modified by the Consulting Engineers in writing, signed copies of such modification to be filed with the Trustee and the Commission and mailed by the Commission to the principal underwriters;

(c) to the credit of the Reserve Account, such amount, if any, of any balance remaining after making the deposits under clauses (a) and (b) above (or the entire balance if less than the required amount) as may be required to make the amount then to the credit of the Reserve Account equal to eighteen (18) months' interest on all bonds then outstanding:

(d) to the credit of the Redemption Account, such amount, if any, of any balance remaining after making the deposits under clauses (a), (b) and (c) above (or the entire balance if less than the required amount) as may be required to make the amount deposited in the then current fiscal year to the credit of the Redemption Account equal to the Amortization Requirements, if any, for such fiscal year for the bonds of each Series then outstanding, plus the premium, if any, on such principal amount of bonds which

(Sec. 508)

60

would be payable in such fiscal year if such principal amount of bonds were to be redeemed prior to their maturity from moneys held for the credit of the Sinking Fund;

(e) to the credit of the Improvement Fund, such amount, if any, of any balance remaining after making the deposits under clauses (a), (b), (c) and (d) above (or the entire balance if less than the required amount) as may be required to make the amount deposited in the current fiscal year to the credit of the Improvement Fund equal to the amount recommended by the Consulting Engineers, as provided by Section 504 of this Article, to be deposited to the credit of said Fund during such fiscal year; provided, however, that if the amount so deposited to the credit of said Fund in any fiscal year shall be less than the amount recommended by the Consulting Engineers, the requirement therefor shall nevertheless be cumulative and the amount of any such deficiency in any fiscal year shall be added to the amount otherwise required to be deposited in each fiscal year thereafter until such time as such deficiency shall have been made up, unless such requirement shall have been modified by the Consulting Engineers in writing, signed copies of such modification to be filed with the Trustee and the Commission and mailed by the Commission to the principal underwriters; and

(f) to the credit of the Redemption Account, the balance, if any, remaining after making the deposits under clauses (a), (b), (c), (d) and (e) above.

SECTION 508. The Trustee shall, immediately preceding each interest payment date, withdraw from the Bond Interest Account and (a) remit by mail to each owner of registered bonds without coupons the amounts required for paying the interest on such bonds as such interest becomes due and payable and (b) deposit in trust with the Paying Agents the amounts required for paying the interest on the coupon bonds as such interest becomes due and payable.

SECTION 509. Except as hereinafter provided in this Section and in Section 707 of this Indenture, moneys held for the credit of the Reserve Maintenance Fund shall be disbursed only for the purpose of paying the cost of

- (a) resurfacing the Toll Road or any part thereof,
- (b) unusual or extraordinary maintenance or repairs, maintenance or repairs not recurring annually, and renewals and replacements, including major items of equipment,
- (c) repairs or replacements resulting from an emergency caused by some extraordinary occurrence, so characterized by a certificate signed by the Consulting Engineers and filed with the Trustee and accompanied by a certificate, signed by the Secretary or an Assistant Secretary of the Commission, stating that the moneys in the 1965 Revenue Fund-Trustee Account and insurance proceeds, if any, available therefor are insufficient to meet such emergency,
- (d) engineering expenses incurred under the provisions of this Section, and
- (e) premiums on insurance carried under the provisions of this Indenture.

Such disbursements by the Trustee shall be made in accordance with the provisions of Section 405 of this Indenture for payments from the Construction Fund to the extent that such provisions may be applicable.

If at any time the moneys held for the credit of the Bond Interest Account and the Reserve Account shall be insufficient for the purpose of paying the interest on the bonds as such interest becomes due and payable, then the Trustee shall transfer from any moneys held for the credit of the Reserve Maintenance Fund to the credit of the Bond Interest Account an amount sufficient to make up any such deficiency. Any moneys so transferred from the Reserve Maintenance Fund shall be restored by the Trustee from available moneys in the 1965 Revenue Fund-Trustee Account, subject to the same conditions as are prescribed for deposits to the credit of the Reserve Maintenance Fund under the provisions of Section 507 of this Article.

The Trustee shall from time to time transfer any moneys from the Reserve Maintenance Fund to the credit of the 1965 Revenue Fund-Trustee Account upon the receipt of a certified copy of a resolution duly adopted by the Commission directing such transfer and a certificate of the Consulting Engineers certifying that the amount so to be

(Sec. 510)

transferred is not required for the purposes for which the Reserve Maintenance Fund has been created.

**SECTION 510.** Except as otherwise provided in Section 410 of this Indenture, moneys held for the credit of the Reserve Account shall be used for the purpose of paying interest on bonds whenever and to the extent that the moneys held for the credit of the Bond Interest Account shall be insufficient for such purpose. If at any time during the first fifteen (15) days of May or November in each fiscal year the moneys held for the credit of the Reserve Account shall exceed eighteen (18) months' interest on all bonds then outstanding, such excess shall be transferred by the Trustee to the credit of the Redemption Account. The Trustee may, however, in its discretion transfer at any time the moneys held for the credit of the Reserve Account in excess of eighteen (18) months' interest on all bonds then outstanding.

**SECTION 511.** Moneys held for the credit of the Redemption Account shall be applied to the retirement of bonds issued under the provisions of this Indenture as follows:

(a) Subject to the provisions of paragraph (c) of this Section, the Trustee shall endeavor to purchase bonds or portions of bonds secured hereby and then outstanding, whether or not such bonds or portions shall then be subject to redemption, at the most advantageous price obtainable with reasonable diligence, such price not to exceed the principal of such bonds plus the amount of the premium, if any, which would be payable on the next redemption date to the holders of such bonds under the provisions of Article III of this Indenture if such bonds or portions of bonds should be called for redemption on such date from moneys in the Sinking Fund. The Trustee shall pay the interest accrued on such bonds or portions of bonds to the date of settlement therefor from the Bond Interest Account and the purchase price from the Redemption Account, but no such purchase shall be made by the Trustee within the period of forty-five (45) days immediately preceding any interest payment date on which such bonds are subject to call for redemption under the provisions of this Indenture except from moneys other than the moneys set aside or deposited for the redemption of bonds.

(b) Subject to the provisions of paragraph (c) of this Section, the Trustee shall call for redemption on each interest payment date on which bonds are subject to redemption from moneys in the Sinking Fund such amount of bonds or portions of bonds then subject to redemption as, with the redemption premium, if any, will exhaust the moneys then held for the credit of the Redemption Account as nearly as may be; provided, however, that not less than One Hundred Thousand Dollars (\$100,000) principal amount of bonds shall be called for redemption at any one time. Such redemption shall be made pursuant to the provisions of Article III of this Indenture. Prior to calling bonds or portions of bonds for redemption the Trustee shall withdraw from the Bond Interest Account and from the Redemption Account and set aside in separate accounts or deposit with the Paying Agents the respective amounts required for paying the interest on, and the principal and redemption premium of, the bonds or portions of bonds so called for redemption.

(c) Moneys in the Redemption Account shall be applied by the Trustee in each fiscal year to the retirement of bonds of each Series then outstanding in the following order:

*first*, the bonds of each such Series to the extent of the Amortization Requirement, if any, for such fiscal year for the bonds of each such Series then outstanding, plus the applicable premium, if any, and, if the amount available in such fiscal year shall not be equal thereto, then in proportion to the Amortization Requirement, if any, for such fiscal year for the bonds of each such Series then outstanding, plus the applicable premium, if any; and

*second*, any balance then remaining shall be applied to the retirement of the bonds of each such Series in proportion (as nearly as practicable) to the aggregate principal amount of the bonds of each such Series originally issued under the provisions of this Agreement;

provided, however, that if the bonds of any Series shall not then be subject to redemption from moneys in the Sinking Fund and if the Trustee shall at any time be unable to exhaust the moneys appli-

(Sec. 512)

64

cable to the bonds of such Series in the purchase of such bonds under the provisions of paragraph (a) of this Section, such moneys or the balance of such moneys, as the case may be, shall be retained in the Redemption Account and, as soon as it is feasible, applied to the retirement of bonds of such Series.

The Commission shall pay from the 1965 Revenue Fund-Trustee Account all expenses in connection with any such purchase or such redemption.

SECTION 512. Except as hereinafter provided in this Section and in Section 707 of this Indenture, moneys held for the credit of the Improvement Fund shall be disbursed only for the purpose of paying, if and to the extent then permitted by law,

- (a) all or any part of the cost of any Improvements, and
- (b) engineering and other expenses incurred in connection with such Improvements.

Such disbursements by the Trustee shall be made in accordance with the provisions of Section 405 of this Indenture for payments from the Construction Fund to the extent that such provisions may be applicable.

If at any time the moneys held for the credit of the Bond Interest Account, the Reserve Account and the Reserve Maintenance Fund shall be insufficient for the purpose of paying the interest on the bonds as such interest becomes due and payable, then the Trustee shall transfer from any moneys held for the credit of the Improvement Fund to the credit of the Bond Interest Account an amount sufficient to make up any such deficiency. Any moneys so transferred from the Improvement Fund shall be restored by the Trustee from available moneys in the 1965 Revenue Fund-Trustee Account, subject to the same conditions as are prescribed for deposits to the credit of the Improvement Fund under the provisions of Section 507 of this Article.

The Trustee shall from time to time transfer any moneys from the Improvement Fund to the credit of the Redemption Account upon the receipt of a certified copy of a resolution duly adopted by the Commission directing such transfer and a certificate of the Consulting Engi-



ner certifying that the amount so to be transferred is not required for the purposes for which the Improvement Fund has been created.

**SECTION 513.** Subject to the terms and conditions set forth in this Indenture, moneys held for the credit of the separate interest account in the Construction Fund, the Bond Interest Account, the Reserve Account and the Redemption Account shall be held in trust and disbursed by the Trustee for (a) the retransfer to the Construction Fund from the Reserve Account of any amount required to be retransferred under the provisions of Section 410 of this Indenture, or (b) the payment of interest on the bonds issued hereunder as such interest becomes due and payable, or (c) the payment of the principal of such bonds at maturity, or (d) the payment of the purchase or redemption price of such bonds before maturity, and such moneys are hereby pledged to and charged with the payments mentioned in this Section.

Whenever the total of the moneys held for the credit of the Bond Interest Account, the Reserve Account and the Redemption Account shall be sufficient for paying the principal of and the redemption premium, if any, and the interest accrued on all bonds then outstanding under the provisions of this Indenture, such moneys shall be applied by the Trustee to the payment, purchase or redemption of such bonds.

**SECTION 514.** All moneys which the Trustee shall have withdrawn from the Sinking Fund or shall have received from any other source and set aside, or deposited with the Paying Agents, for the purpose of paying any of the bonds hereby secured, either at the maturity thereof or upon call for redemption, or for the purpose of paying any maturing coupons appertaining to any of the coupon bonds hereby secured, shall be held in trust for the respective holders of such bonds or coupons. But any moneys which shall be so set aside or deposited by the Trustee and which shall remain unclaimed by the holders of such bonds or of such coupons for the period of six (6) years after the date on which such bonds or such coupons shall have become due and payable shall upon request in writing be paid to the Commission or to such officer, board or body as may then be entitled by law to receive the same, and thereafter the holders of such bonds or coupons

(Sec. 515)

66

shall look only to the Commission or to such officer, board or body, as the case may be, for payment and then only to the extent of the amounts so received without any interest thereon, and the Trustee and the Paying Agents shall have no responsibility with respect to such moneys.

SECTION 516. All bonds paid, redeemed or purchased, either at or before maturity, together with all unmatured coupons, if any, appertaining thereto, shall be cancelled upon the payment, redemption or purchase of such bonds. All coupons shall be cancelled upon their payment. All bonds and coupons cancelled under any of the provisions of this Indenture shall be cremated by the Trustee or by the New York Paying Agent at the request of the Trustee. The Trustee or the New York Paying Agent effecting such cremation shall execute a certificate of cremation in duplicate describing the bonds and coupons so cremated except that the numbers of the bonds to which such coupons appertain may be omitted, and one executed certificate shall be filed with the Secretary of the Commission and the other executed certificate shall be retained by or filed with the Trustee.

## ARTICLE VI.

### DEPOSITARIES OF MONEYS, SECURITY FOR DEPOSITS AND INVESTMENT OF FUNDS.

SECTION 601. All moneys deposited under the provisions of this Indenture with the Trustee or any other depositary and all tolls and other revenues of the Toll Road collected by the Commission, shall be held in trust and applied only in accordance with the provisions of this Indenture, and shall not be subject to lien or attachment by any creditor of the Commission.

No moneys shall be deposited with any depositary, other than the Trustee, in an amount exceeding fifty per centum (50%) of the amount which an officer of such depositary shall certify to the Commission as the combined capital and surplus of such depositary.

All moneys deposited with the Trustee or any other depository hereunder shall be continuously secured, for the benefit of the Commission and the holders of the bonds, either (a) by lodging with a bank or trust company approved by the Commission and by the Trustee as custodian, as collateral security, direct obligations of, or obligations the principal of and the interest on which are unconditionally guaranteed by, the United States Government, or other marketable securities eligible as security for the deposit of trust funds under regulations of the Comptroller of the Currency of the United States, having a market value (exclusive of accrued interest) not less than the amount of such deposit, or (b) in such other manner as may then be required or permitted by applicable state or federal laws and regulations regarding the security for, or granting a preference in the case of, the deposit of trust funds; provided, however, that it shall not be necessary for the Paying Agents to give security for the deposit of any moneys with them for the payment of the principal of or the redemption premium or the interest on any bonds issued hereunder, or for the Trustee to give security for any moneys which shall be represented by obligations purchased under the provisions of this Article as an investment of cash moneys.

All moneys deposited with each depository, including the Trustee, shall be credited to the particular fund or account to which such moneys belong.

**SECTION 602.** Moneys held for the credit of the Construction Fund, excluding the moneys set aside in the separate interest account in the Construction Fund as provided by Section 404 of this Indenture, or any special construction fund shall, as nearly as may be practicable, be invested and reinvested by the Trustee in direct obligations of, or obligations the principal of and the interest on which are unconditionally guaranteed by, the United States Government, Federal Intermediate Credit Banks, Federal Land Banks, Federal National Mortgage Association, Federal Home Loan Banks or Banks for Cooperatives which shall mature, or which shall be subject to redemption by the holder thereof at the option of such holder, not later than one year after the date on which the Project or Improvements will be opened for traffic or placed in operation as estimated by the Consulting Engineers in their statement filed under the provisions of clause (b) of Section

(Sec. 602)

68

208 or clause (c) of Section 210 of this Indenture. Any moneys held for the credit of the Construction Fund, excluding the moneys set aside in said separate interest account, or such special construction fund at the expiration of such one year's period or thereafter shall, as nearly as may be practicable, be invested and reinvested by the Trustee in direct obligations of, or obligations the principal of and the interest on which are unconditionally guaranteed by, the United States Government which shall mature, or which shall be subject to redemption by the holder thereof at the option of such holder, not later than one year after the date of such investment.

Moneys held for the credit of said separate interest account in the Construction Fund and the Bond Interest Account in the Sinking Fund shall, as nearly as may be practicable, be invested and reinvested by the Trustee in direct obligations of, or obligations the principal of and the interest on which are unconditionally guaranteed by, the United States Government which shall mature, or which shall be subject to redemption by the holder thereof at the option of such holder, not later than the respective dates when the moneys held for the credit of said accounts will be required for the purposes intended.

Moneys held for the credit of the Reserve Account in the Sinking Fund shall, as nearly as may be practicable, be invested and reinvested by the Trustee in direct obligations of, or obligations the principal of and the interest on which are unconditionally guaranteed by, the United States Government which shall mature, or which shall be subject to redemption by the holder thereof at the option of such holder, not later than five (5) years after the date of such investment.

Moneys held for the credit of the Reserve Maintenance Fund and the Improvement Fund shall be invested by the Trustee, from time to time, upon receipt of a copy of a resolution of the Commission, certified by the Secretary or an Assistant Secretary of the Commission, directing such investment and the written approval of the Consulting Engineers of the amount of such moneys to be so invested, in direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United States Government which shall mature, or which shall be subject to redemption by the holder thereof at the option

of such holder, not later than five (5) years after the date of such investment.

Obligations so purchased as an investment of moneys in any such Fund or Account shall be deemed at all times to be a part of such Fund or Account, and the interest accruing thereon and any profit realized from such investment shall be credited to such Fund or Account, and any loss resulting from such investment shall be charged to such Fund or Account; provided, however, that the interest accruing on the investment of moneys in said separate interest account in the Construction Fund and any profit realized from such investment shall be credited to the Construction Fund and not to said separate interest account, and any loss resulting from such investment shall be charged to the Construction Fund and not to said separate interest account. The Trustee shall sell at the best price obtainable or present for redemption any obligations so purchased whenever it shall be necessary so to do in order to provide moneys to meet any payment or transfer from any such Fund or Account. Neither the Trustee nor the Commission shall be liable or responsible for any loss resulting from any such investment.

## ARTICLE VII.

### PARTICULAR COVENANTS.

SECTION 701. The Commission covenants that it will promptly pay the principal of and the interest on every bond issued under the provisions of this Indenture at the places, on the dates and in the manner provided herein and in said bonds and in any coupons appertaining to said bonds, and any premium required for the retirement of said bonds by purchase or redemption, according to the true intent and meaning thereof. Except as in this Indenture otherwise provided, such principal, interest and premium are payable solely from tolls and other revenues derived from the ownership or operation of the Toll Road, which tolls and other revenues and other moneys to the extent provided in this Indenture are hereby pledged to the payment thereof in the manner and to the extent hereinabove particularly specified, and nothing in the bonds or coupons or in this Indenture shall be construed as obligating the

(Sec. 702)

Commission or the State of Virginia or any political subdivision thereof to pay the bonds or the interest thereon except from revenues of the Toll Road and such other moneys or as pledging the faith and credit or taxing power of the State of Virginia or of any such political subdivision.

The Commission further covenants that so long as the bonds or any of them shall be outstanding it will cause offices or agencies where the coupon bonds and coupons may be presented for payment to be maintained in the City of Norfolk, Virginia, and in the Borough of Manhattan, City and State of New York.

SECTION 702. The Commission covenants that it will forthwith proceed to acquire the right of way for the Project and to construct the Project substantially as described in the engineering and traffic reports mentioned in the preambles of this Indenture and in accordance with plans and specifications which shall have been approved by the Consulting Engineers and in conformity with law and all requirements of all governmental authorities having jurisdiction thereover, and that it will complete such acquisition and construction with all expedition practicable. The Commission further covenants that, in the event that bonds shall be issued under the provisions of Section 210 of this Indenture, it will forthwith proceed to construct the Improvements for which such bonds shall be issued in accordance with plans and specifications which shall have been approved by the Consulting Engineers and in conformity with law and all requirements of all governmental authorities having jurisdiction thereover, and that it will complete such construction with all expedition practicable. The Commission further covenants that upon the opening of the Project or any part thereof for traffic it will deliver to the Trustee a certificate, signed by the State Highway Commissioner or the Chief Engineer, stating the date upon which such opening occurred.

The Commission further covenants that before entering into any contract or incurring any obligation which will become a charge against the Construction Fund or any special construction fund it will secure the approval of the Consulting Engineers of such contract or the incurring of such obligation and of the plans and specifications referred to in any such contract, and that it will require each person, firm or cor-

poration with whom it may contract for labor or materials in connection with the construction of the Project or any Improvements to furnish a performance bond in the full amount of any contract exceeding Twenty-five Thousand Dollars (\$25,000) in amount or, in lieu thereof, to deposit with the Trustee, to insure completion and performance, marketable securities having a market value equal to the amount of such contract and eligible as security for the deposit of trust funds under regulations of the Comptroller of the Currency of the United States, and to carry such workmen's compensation or employers' liability insurance as may be required by law and such public liability and property damage insurance, including provisions to indemnify and save the Commission harmless, and such builders' risk insurance, if any, as may be recommended by the Consulting Engineers. The Commission further covenants that, in the event of any default under any such contract and the failure of the surety to complete the contract, the proceeds of such performance bond or securities will forthwith, upon receipt of such proceeds, be deposited to the credit of the Construction Fund or the appropriate special construction fund, and will be applied toward the completion of the contract in connection with which such performance bond or securities shall have been furnished.

SECTION 703. The Commission covenants that it will establish and enforce reasonable rules and regulations governing the use of the Toll Road and the operation thereof, that all conditions of employment and all compensation, salaries, fees and wages paid by it in connection with the maintenance, repair and operation of the Toll Road will be reasonable, that no more persons will be employed by it than are necessary, that all persons employed by it will be qualified for their respective positions, that it will maintain and operate the Toll Road in an efficient and economical manner, that, from the revenues of the Toll Road and any other available moneys, it will at all times maintain the same in good repair and in sound operating condition and will make all necessary repairs, renewals and replacements, and that it will observe and perform all of the terms and conditions contained in the State Revenue Bond Act.

The Commission may, in its discretion, use such personnel, material and equipment in the maintenance, repair and operation of the Toll Road as it may otherwise have available and nothing in this Indenture shall be construed as requiring the Commission to maintain, repair and operate the Toll Road with personnel, material and equipment used

(Sec. 704)

72

exclusively for the Toll Road. The allocation to the Toll Road of the expense of any such personnel, material and equipment not used exclusively for the Toll Road shall be made on such equitable basis as shall be approved by the Consulting Engineers and any such expense so allocated shall be a part of the Current Expenses of the Toll Road.

The Commission further covenants that it will take all lawful action on its part which may be necessary or desirable to advertise the Toll Road to the traveling public and that it will provide and maintain highway designation signs and adequate directional signs to the Toll Road which, in the judgment of the Commission, may be beneficial to the Toll Road or necessary to protect against the diversion of traffic from the Toll Road.

SECTION 704. The Commission covenants that, except as otherwise permitted in Section 714 of this Article, it will not create or suffer to be created any lien or charge upon the Toll Road or any part thereof or upon the tolls or other revenues therefrom except the lien and charge of the bonds secured hereby upon such tolls and revenues, and that, from such revenues or other available funds, it will pay or cause to be discharged, or will make adequate provision to satisfy and discharge, within sixty (60) days after the same shall accrue, all lawful claims and demands for labor, materials, supplies or other objects which, if unpaid, might by law become a lien upon the Toll Road or any part thereof or the tolls or other revenues therefrom; provided, however, that nothing in this Section contained shall require the Commission to pay or cause to be discharged, or make provision for, any such lien or charge so long as the validity thereof shall be contested in good faith.

SECTION 705. Notwithstanding any other provision of this Indenture, the Commission may permit the United States of America, the State of Virginia or any of their agencies, departments or political subdivisions, to pay all or any part of the cost of constructing, maintaining, repairing and operating the Toll Road.

SECTION 706. The Commission covenants that it will, for the purpose of performing and carrying out the duties imposed on the Consulting Engineers by this Indenture, employ an independent engineer or engineering firm or corporation having a nation-wide and favorable



repute for skill and experience in such work, and that it will, for the purpose of performing and carrying out the duties imposed on the Traffic Engineers by this Indenture, employ an independent engineer or engineering firm or corporation having a nation-wide and favorable repute for skill and experience in such work. Howard, Needles, Tammen & Bergendoff, of New York City, New York, are now employed by the Commission as such Consulting Engineers, and Wilbur Smith and Associates, of New Haven, Connecticut, are now employed by the Commission as such Traffic Engineers. The Commission further covenants that before employing any other engineer or engineering firm or corporation as Consulting Engineers or as Traffic Engineers under this Indenture it will secure the written approval of the Trustee and a majority of the principal underwriters of such employment.

The Commission further covenants that an engineer of suitable experience will at all times be employed for the purpose of performing and carrying out the duties imposed on the Chief Engineer by this Indenture.

**SECTION 707.** The Commission covenants that during the construction of the Project or any part thereof or any Improvements it will carry such builders' risk insurance, if any, as shall be recommended by the Consulting Engineers, and that from and after the time when the contractors or any of them engaged in constructing any bridge or elevated structure or part thereof constituting a part of the Toll Road the replacement cost of which is in excess of Five Hundred Thousand Dollars (\$500,000) shall cease to be responsible, pursuant to the provisions of the respective contracts for the construction of such bridge or structure or such part, for loss or damage to such bridge or structure or such part occurring from any cause, it will insure and at all times keep such bridge or structure or such part insured with a responsible insurance company or companies, qualified to assume the risk thereof, against physical loss or damage however caused, with such exceptions as are ordinarily required by insurers of structures or facilities of similar type, in an amount not less than eighty per centum (80%) of the replacement value of each such bridge or structure or such part, less depreciation, as shall be certified by the Consulting Engineers in writing filed with the Commission and with the Trustee, a copy of which shall be mailed by the Commission to the principal underwriters; provided, however, that such amount of insurance shall at all times be

(Sec. 707)

74

sufficient to comply with any legal or contractual requirement which, if breached, would result in assumption by the Commission of a portion of any loss or damage as a co-insurer, and such insurance may provide for the deduction from each claim for loss or damage (except in case of a total loss) of not more than two per centum (2%) of the replacement value of the property insured, less depreciation. If at any time the Commission shall be unable to obtain such insurance to the extent above required, either as to amount of such insurance or as to the risks covered thereby or the deductible provision thereof, it will not constitute an event of default under the provisions of this Indenture if the Commission shall carry such insurance to the extent reasonably obtainable.

The Commission further covenants that, if and when war risk insurance is obtainable, it will obtain such insurance on any bridge or elevated structure or part thereof constituting a part of the Toll Road in such amount and during such period as shall be recommended by the Consulting Engineers.

All such policies shall be for the benefit of the Trustee and the Commission as their interests shall appear, shall be made payable to the Trustee and shall be deposited with the Trustee, and the Trustee shall have the sole right to receive and receipt for the proceeds of such insurance. The proceeds of any and all such insurance shall be held by the Trustee as security for the bonds issued hereunder until paid out as hereinafter provided.

The Commission further covenants that, immediately after any substantial damage to or destruction of any part of the Toll Road, it will cause the Consulting Engineers to prepare plans and specifications for repairing, replacing or reconstructing the damaged or destroyed property (either in accordance with the original or a different design) and an estimate of the cost thereof, and to file copies of such estimate with the Commission and the Trustee and to mail copies of such estimate to the principal underwriters.

The proceeds of all insurance referred to in this Section shall be available for, and shall to the extent necessary be applied to, the repair, replacement or reconstruction of the damaged or destroyed property, and such disbursements by the Trustee for such purposes shall be made

in accordance with the provisions of Section 405 of this Indenture for payments from the Construction Fund to the extent that such provisions may be applicable. If such proceeds are more than sufficient for such purpose, the balance remaining shall be deposited to the credit of the Reserve Maintenance Fund or the Redemption Account, as the Commission by resolution may determine. If such proceeds shall be insufficient for such purpose, the deficiency shall be supplied by the Trustee upon requisition of the Commission from any moneys held for the credit of the Reserve Maintenance Fund or the Improvement Fund.

The Commission further covenants that, in the case of any substantial damage to or destruction of any part of the Toll Road, it will forthwith, with any funds available for such purpose, commence and diligently proceed with the repair, replacement or reconstruction of the damaged or destroyed property according to plans and specifications prepared or approved by the Consulting Engineers.

The proceeds of any such insurance not applied or obligated within eighteen (18) months after their receipt by the Trustee to repairing, replacing or reconstructing the damaged or destroyed property, unless the Commission shall advise the Trustee in writing that it has been prevented from so doing because of conditions beyond its control or unless the Commission, with the consent of the holders of a majority in principal amount of all the bonds then outstanding, shall otherwise direct, shall be deposited to the credit of the Redemption Account.

**SECTION 708.** The Commission covenants that it will at all times carry in a responsible insurance company or companies qualified to assume the risk thereof such workmen's compensation or employers' liability insurance as may be required by law and such use and occupancy, public liability, property damage and other insurance as the Consulting Engineers may recommend. Copies of all such recommendations shall be filed with the Commission and the Trustee and mailed by the Commission to the principal underwriters.

All policies providing use and occupancy insurance shall be made payable to and deposited with the Trustee, and the Trustee shall have the sole right to receive and receipt for any proceeds of such policies. Any proceeds of use and occupancy insurance paid to the Trustee shall

(Sec. 709)

be deposited by it forthwith to the credit of the 1965 Revenue Fund—Trustee Account.

**SECTION 709.** All insurance policies referred to in Sections 707 and 708 of this Article shall be open at all reasonable times to the inspection of the principal underwriters and the bondholders and their agents and representatives. The Commission covenants that it will take such action as may be necessary to demand, collect and sue for any insurance money which may become due and payable under any policy payable to the Trustee. The Trustee is hereby authorized in its own name to demand, collect, sue and receipt for any insurance money which may become due and payable under any policies payable to it.

Any appraisalment or adjustment of any loss or damage under any policy payable to the Trustee and any settlement or payment of indemnity under any such policy which may be agreed upon by the Commission, the Trustee and any insurer shall be evidenced by a certificate, signed by the State Highway Commissioner or such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose and by the Trustee, approved by the Consulting Engineers, and filed with the Secretary of the Commission and the Trustee. The Trustee shall in no way be liable or responsible for the collection of insurance moneys in case of any loss or damage.

**SECTION 710.** The Commission covenants that none of the revenues of the Toll Road will be used for any purpose other than as provided in this Indenture and no contract or contracts will be entered into or any action taken by it which shall be inconsistent with the provisions of this Indenture.

**SECTION 711.** The Commission covenants that it will, from time to time, execute and deliver such further instruments and take such further action as may be required to carry out the purposes of this Indenture.

**SECTION 712.** The Commission covenants that it will keep an accurate record of the total cost of the Toll Road, of the daily tolls and other revenues collected, of the number and class of vehicles using the Toll Road, and of the application of such tolls and other revenues. Such

records shall be open at all reasonable times to the inspection of the Trustee, the principal underwriters and the bondholders and their agents and representatives.

The Commission further covenants that at least once each month after the opening of the Project or any part thereof for traffic it will cause to be filed with the Trustee and mailed to the Consulting Engineers, the Traffic Engineers, the principal underwriters and all bondholders who shall have filed their names and addresses with the Secretary of the Commission for such purpose, copies of any revisions of the toll schedule during the preceding calendar month and a report setting forth in respect of the preceding calendar month

(a) an income and expense account for the Toll Road,

(b) the number of vehicles in each toll class using the Toll Road and revenues derived from each such class,

(c) all deposits to the credit of and withdrawals from each Fund and Account created under the provisions of this Indenture,

(d) the details of all bonds issued, paid, purchased or redeemed,

(e) a balance sheet as of the end of such month,

(f) the amount on deposit at the end of such month to the credit of each such Fund and Account, the security therefor, and the details of any investments thereof, and

(g) the amounts of the proceeds received from any sale of property pursuant to the provisions of Section 714 of this Article and the amounts of the proceeds of any insurance received pursuant to the provisions of Sections 707 and 708 of this Article, and the disposition thereof.

The Commission further covenants that promptly after the close of each fiscal year after the opening of the Project or any part thereof for traffic it will cause an audit to be made of its books and accounts relating to the Toll Road for the preceding fiscal year by an independent firm of

(Sec. 712)

78

certified public accountants of recognized ability and standing, to be chosen by the Commission with the approval of the Trustee. The Trustee shall make available to such accountants all its books and records pertaining to the Toll Road. Promptly thereafter reports of each such audit shall be filed with the Commission and the Trustee and copies of such reports shall be mailed by the Commission to the Consulting Engineers, the Traffic Engineers, the principal underwriters and all bondholders who shall have filed their names and addresses with the Secretary of the Commission for such purpose. Each such audit report shall set forth in respect of the preceding fiscal year the same matters as are hereinabove required for the monthly reports, the amounts and classifications of Current Expenses paid from available funds other than revenues of the Toll Road during such fiscal year, the findings of such public accountants as to whether the moneys received by the Commission under the provisions of this Indenture during such fiscal year have been applied in accordance with the provisions of this Indenture, whether any obligations for Current Expenses were incurred in the preceding fiscal year in excess of the Annual Budget for such fiscal year, whether the amount deposited to the credit of the Sinking Fund and the Improvement Fund in the preceding fiscal year has exceeded or was less than the amount for such fiscal year referred to in clause (c) of Section 501 of this Indenture and whether the Commission is in default in the performance of any of the covenants contained in said Section 501, and also a schedule of all insurance policies referred to in Sections 707 and 708 of this Article which are then in effect, stating with respect to each policy the name of the insurer, the amount, the number, the expiration date and the risks covered thereby. Such monthly reports and audit reports shall be open at all reasonable times to the inspection of the bondholders and their agents and representatives.

The Commission further covenants that it will cause any additional reports or audits relating to the Toll Road to be made as required by law and that, as often as may be requested, it will furnish to the Trustee, the principal underwriters and the holder of any bond issued hereunder such other information concerning the Toll Road or the operation thereof as any of them may reasonably request.

The cost of the reports and audits referred to in this Section shall be treated as a part of the cost of operation of the Toll Road.

**SECTION 713.** The Commission covenants that all the accounts and records of the Commission will be kept according to recognized accounting practices consistent with the provisions of this Indenture.

**SECTION 714.** The Commission covenants that, except as in this Section otherwise permitted, it will not sell, lease or otherwise dispose of or encumber the Toll Road or any part thereof. The Commission may, however, from time to time, sell any machinery, fixtures, apparatus, tools, instruments or other movable property acquired by it from the proceeds of bonds issued on account of the Toll Road or from the revenues thereof, if the State Highway Commissioner or such other officer or employee of the Commission as may be designated by the State Highway Commissioner for such purpose shall determine that such articles are no longer needed or are no longer useful in connection with the construction or maintenance and operation of the Toll Road, and the proceeds thereof shall be applied to the replacement of the properties so sold or disposed of or shall be deposited to the credit of the Construction Fund, the Reserve Maintenance Fund or the Redemption Account, as such officer or employee may determine. The Commission may from time to time sell any real estate owned by it as the Commission by resolution shall determine, with the approval of the Consulting Engineers, is not needed or serves no useful purpose in connection with the maintenance and operation of the Toll Road. The proceeds of any sale of real estate shall be disposed of as hereinabove provided for the proceeds of the sale or disposal of movable property.

Upon any sale of property under the provisions of this Section the Commission shall notify the Trustee of the property so sold and the amount and disposition of the proceeds thereof.

The Commission may lease, or grant easements, franchises or concessions for the use of, any part of the Toll Road not needed or required for the maintenance and operation thereof as a traffic facility, and the net proceeds of any such lease or concession shall be deposited as received to the credit of the 1965 Revenue Fund—Trustee Account.

## ARTICLE VIII

### REMEDIES.

**SECTION 801.** In case the time for the payment of any coupon or the interest on any registered bond without coupons shall be extended,

(Sec. 801)

whether or not such extension be by or with the consent of the Commission, such coupon or such interest so extended shall not be entitled in case of default hereunder to the benefit or security of this Indenture except subject to the prior payment in full of the principal of all bonds then outstanding and of all coupons and interest the time for the payment of which shall not have been extended.

SECTION 802. Each of the following events is hereby declared an "event of default", that is to say: If

(a) payment of the principal and of the redemption premium, if any, of any of the bonds shall not be made when the same shall become due and payable, either at maturity or by proceedings for redemption or otherwise; or

(b) payment of any instalment of interest on any of the bonds shall not be made within thirty (30) days after the same shall become due and payable; or

(c) the Commission shall unreasonably delay or fail to carry on with reasonable dispatch or discontinue the construction of the Project; or

(d) the Commission shall for any reason be rendered incapable of fulfilling its obligations hereunder; or

(e) any substantial part of the Toll Road shall be destroyed or damaged to the extent of impairing its efficient operation or adversely affecting its gross revenues and shall not be promptly repaired, replaced or reconstructed (whether such failure promptly to repair, replace or reconstruct the same be due to the impracticability of such repair, replacement or reconstruction or to lack of funds therefor or for any other reason); or

(f) final judgment for the payment of money shall be rendered against the Commission as a result of the ownership, control or operation of the Toll Road and any such judgment shall not be discharged within ninety (90) days from the entry thereof or an appeal shall not be taken therefrom or from the order, decree or



process upon which or pursuant to which such judgment shall have been granted or entered, in such manner as to stay the execution of or levy under such judgment, order, decree or process or the enforcement thereof; or

(g) an order or decree shall be entered, with the consent or acquiescence of the Commission, appointing a receiver or receivers of the Toll Road or any part thereof or of the tolls or other revenues thereof, or if such order or decree, having been entered without the consent or acquiescence of the Commission, shall not be vacated or discharged or stayed on appeal within ninety (90) days after the entry thereof; or

(h) any proceeding shall be instituted, with the consent or acquiescence of the Commission, for the purpose of effecting a composition between the Commission and its creditors or for the purpose of adjusting the claims of such creditors pursuant to any federal or state statute now or hereafter enacted, if the claims of such creditors are under any circumstances payable from the revenues of the Toll Road; or

(i) the Commission shall default in the due and punctual performance of any other of the covenants, conditions, agreements and provisions contained in the bonds or in this Indenture on the part of the Commission to be performed, and such default shall continue for thirty (30) days after written notice specifying such default and requiring same to be remedied shall have been given to the Commission by the Trustee, which may give such notice in its discretion and shall give such notice at the written request of the holders of not less than ten per centum (10%) in aggregate principal amount of the bonds then outstanding.

**SECTION 903.** Upon the happening and continuance of any event of default specified in Section 902 of this Article, then and in every such case the Trustee may proceed, and upon the written request of the holders of not less than ten per centum (10%) in aggregate principal amount of the bonds then outstanding hereunder shall proceed, subject to the provisions of Section 902 of this Indenture, to protect and enforce its rights and the rights of the bondholders under the laws of the State

(Sec. 803)

82

of Virginia or under this Indenture by such suits, actions or special proceedings in equity or at law, or by proceedings in the office of any board or officer having jurisdiction, either for the specific performance of any covenant or agreement contained herein or in aid or execution of any power herein granted or for the enforcement of any proper legal or equitable remedy, as the Trustee, being advised by counsel, shall deem most effectual to protect and enforce such rights.

In the enforcement of any remedy under this Indenture the Trustee shall be entitled to sue for, enforce payment of and receive any and all amounts then or during any default becoming, and at any time remaining, due from the Commission for principal, interest or otherwise under any of the provisions of this Indenture or of the bonds and unpaid, with interest on overdue payments of principal at the rate or rates of interest specified in such bonds, together with any and all costs and expenses of collection and of all proceedings hereunder and under such bonds, without prejudice to any other right or remedy of the Trustee or of the bondholders, and to recover and enforce judgment or decree against the Commission, but solely as provided herein and in such bonds, for any portion of such amounts remaining unpaid and interest, costs and expenses as above provided, and to collect (but solely from moneys in the Sinking Fund and any other moneys available for such purpose) in any manner provided by law, the moneys adjudged or decreed to be payable.

**SECTION 804.** Anything in this Indenture to the contrary notwithstanding, if at any time the moneys in the Sinking Fund shall not be sufficient to pay the interest on or the principal of the bonds as the same shall become due and payable, such moneys, together with any moneys then available or thereafter becoming available for such purpose, whether through the exercise of the remedies provided for in this Article or otherwise, shall be applied as follows:

(a) If the principal of all the bonds shall not have become due and payable, all such moneys shall be applied

*first:* to the payment to the persons entitled thereto of all instalments of interest then due and payable in the order in which such instalments became due and payable and, if the

amount available shall not be sufficient to pay in full any particular instalment, then to the payment, ratably, according to the amounts due on such instalment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the bonds; and

*second:* to the retirement of bonds in accordance with the provisions of Section 511 of this Indenture.

(b) If the principal of all the bonds shall have become due and payable, all such moneys shall be applied

*first:* to the payment to the persons entitled thereto of all instalments of interest due and payable on or prior to maturity, if any, in the order in which such instalments became due and payable and, if the amount available shall not be sufficient to pay in full any particular instalment, then to the payment, ratably, according to the amounts due on such instalment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the bonds, and then to the payment of any interest due and payable after maturity on the bonds, ratably, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the bonds; and

*second:* to the payment of the principal of the bonds, ratably, to the persons entitled thereto, without preference or priority of any bond over any other bond.

The provisions of paragraphs (a) and (b) of this Section are in all respects subject to the provisions of Section 801 of this Article.

Whenever moneys are to be applied by the Trustee pursuant to the provisions of this Section, such moneys shall be applied by the Trustee at such times, and from time to time, as the Trustee in its sole discretion shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional

(Sec. 805)

moneys becoming available for such application in the future; the deposit of such moneys with the Paying Agents, or otherwise setting aside such moneys, in trust for the proper purpose shall constitute proper application by the Trustee; and the Trustee shall incur no liability whatsoever to the Commission, to any bondholder or to any other person for any delay in applying any such moneys, so long as the Trustee acts with reasonable diligence, having due regard to the circumstances, and ultimately applies the same in accordance with such provisions of this Indenture as may be applicable at the time of application by the Trustee. Whenever the Trustee shall exercise such discretion in applying such moneys, it shall fix the date (which shall be an interest payment date unless the Trustee shall deem another date more suitable) upon which such application is to be made and upon such date interest on the amounts of principal to be paid on such date shall cease to accrue. The Trustee shall give such notice as it may deem appropriate of the fixing of any such date, and shall not be required to make payment to the holder of any unpaid coupon or any bond until such coupon or such bond and all unmatured coupons, if any, appertaining to such bond shall be surrendered to the Trustee for appropriate endorsement, or for cancellation if fully paid.

SECTION 805. In case any proceeding taken by the Trustee or bondholders on account of any default shall have been discontinued or abandoned for any reason, then and in every such case the Commission, the Trustee and the bondholders shall be restored to their former positions and rights hereunder, respectively, and all rights, remedies, powers and duties of the Trustee shall continue as though no such proceeding had been taken.

SECTION 806. Anything in this Indenture to the contrary notwithstanding, the holders of a majority in principal amount of the bonds then outstanding hereunder shall have the right, subject to the provisions of Section 902 of this Indenture, by an instrument or concurrent instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all remedial proceedings to be taken by the Trustee hereunder, provided that such direction shall not be otherwise than in accordance with law or the provisions of this Indenture.

SECTION 807. Except as provided in Section 501 of this Indenture, no holder of any of the bonds shall have any right to institute any suit, action or proceeding in equity or at law on any bond or for the execution of any trust hereunder or for any other remedy hereunder unless such holder previously shall have given to the Trustee written notice of the event of default on account of which such suit, action or proceeding is to be instituted, and unless also the holders of not less than ten per centum (10%) in aggregate principal amount of the bonds then outstanding shall have made written request of the Trustee after the right to exercise such powers or right of action, as the case may be, shall have accrued, and shall have afforded the Trustee a reasonable opportunity either to proceed to exercise the powers hereinabove granted or to institute such action, suit or proceeding in its or their name, and unless, also, there shall have been offered to the Trustee reasonable security and indemnity against the costs, expenses and liabilities to be incurred therein or thereby, and the Trustee shall have refused or neglected to comply with such request within a reasonable time; and such notification, request and offer of indemnity are hereby declared in every such case, at the option of the Trustee, to be conditions precedent to the execution of the powers and trusts of this Indenture or to any other remedy hereunder; provided, however, that notwithstanding the foregoing provisions of this Section and without complying therewith, the holders of not less than twenty per centum (20%) in aggregate principal amount of the bonds then outstanding may institute any such suit, action or proceeding in their own names for the benefit of all holders of bonds hereunder. It is understood and intended that, except as otherwise above provided, no one or more holders of the bonds hereby secured shall have any right in any manner whatever by his or their action to affect, disturb or prejudice the security of this Indenture, or to enforce any right hereunder except in the manner herein provided, that all proceedings at law or in equity shall be instituted, had and maintained in the manner herein provided and for the benefit of all holders of such outstanding bonds and coupons, and that any individual right of action or other right given to one or more of such holders by law is restricted by this Indenture to the rights and remedies herein provided.

SECTION 808. All rights of action under this Indenture or under any of the bonds secured hereby, enforceable by the Trustee, may be

(Sec. 308)

86

enforced by it without the possession of any of the bonds or the coupons appertaining thereto or the production thereof at the trial or other proceeding relative thereto, and any such suit, action or proceeding instituted by the Trustee shall be brought in its name for the benefit of all of the holders of such bonds and coupons, subject to the provisions of this Indenture.

**SECTION 809.** No remedy herein conferred upon or reserved to the Trustee or to the holders of the bonds is intended to be exclusive of any other remedy or remedies herein provided, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder.

**SECTION 810.** No delay or omission of the Trustee or of any holder of the bonds to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default or an acquiescence therein; and every power and remedy given by this Indenture to the Trustee and to the holders of the bonds, respectively, may be exercised from time to time and as often as may be deemed expedient.

The Trustee may, and upon written request of the holders of not less than a majority in principal amount of the bonds then outstanding shall, waive any default which in its opinion shall have been remedied before the entry of final judgment or decree in any suit, action or proceeding instituted by it under the provisions of this Indenture or before the completion of the enforcement of any other remedy under this Indenture, but no such waiver shall extend to or affect any other existing or any subsequent default or defaults or impair any rights or remedies consequent thereon.

**SECTION 811.** The Trustee shall mail to the principal underwriters, all registered owners of bonds at their addresses as they appear on the registration books, and all other bondholders who shall have filed their names and addresses with the Trustee for such purpose, written notice of the occurrence of any event of default set forth in Section 802 of this Article within thirty (30) days after the Trustee shall have notice, pursuant to the provisions of Section 908 of this Indenture, that any such event of default shall have occurred. The Trustee shall not, how-

ever, be subject to any liability to the principal underwriters or to any bondholder by reason of its failure to mail any such notice.

### ARTICLE IX.

#### CONCERNING THE TRUSTEE.

**SECTION 901.** The Trustee accepts and agrees to execute the trusts imposed upon it by this Indenture, but only upon the terms and conditions set forth in this Article and subject to the provisions of this Indenture, to all of which the parties hereto and the respective holders of the bonds agree.

**SECTION 902.** The Trustee shall be under no obligation to institute any suit, or to take any remedial proceeding under this Indenture, or to enter any appearance or in any way defend in any suit in which it may be made defendant, or to take any steps in the execution of the trusts hereby created or in the enforcement of any rights and powers hereunder, until it shall be indemnified to its satisfaction against any and all costs and expenses, outlays and counsel fees and other reasonable disbursements, and against all liability; the Trustee may, nevertheless, begin suit, or appear in and defend suit, or do anything else in its judgment proper to be done by it as such Trustee, without indemnity, and in such case the Commission shall reimburse the Trustee from the revenues of the Toll Road for all costs and expenses, outlays and counsel fees and other reasonable disbursements properly incurred in connection therewith. If the Commission shall fail to make such reimbursement, the Trustee may reimburse itself from any moneys in its possession under the provisions of this Indenture and shall be entitled to a preference therefor over any of the bonds or coupons outstanding hereunder.

**SECTION 903.** The Trustee shall be under no obligation to effect or maintain insurance or to renew any policies of insurance or to inquire as to the sufficiency of any policies of insurance carried by the Commission, or to report, or make or file claims or proof of loss for, any loss or damage insured against or which may occur, or to keep itself informed or advised as to the payment of any taxes or assessments, or to require any such payment to be made. The Trustee shall have no responsibility in respect of the validity, sufficiency, due execution or acknowledgement of this Indenture, or, except as to the authentica-

(Sec. 904)

88

tion thereof, in respect of the validity of the bonds or of the coupons or the due execution or issuance thereof. The Trustee shall be under no obligation to see that any duties herein imposed upon the Commission, the Consulting Engineers, the Traffic Engineers, the Paying Agents, any depository, or any party other than itself, or any covenants herein contained on the part of any party other than itself to be performed, shall be done or performed, and the Trustee shall be under no obligation for failure to see that any such duties or covenants are so done or performed.

**SECTION 904.** The Trustee shall not be liable or responsible because of the failure of the Commission or of any of its employees or agents to make any collections or deposits or to perform any act herein required of the Commission or because of the loss of any moneys arising through the insolvency or the act or default or omission of any other depository in which such moneys shall have been deposited under the provisions of this Indenture. The Trustee shall not be responsible for the application of any of the proceeds of the bonds or any other moneys deposited with it and paid out, withdrawn or transferred hereunder if such application, payment, withdrawal or transfer shall be made in accordance with the provisions of this Indenture. The immunities and exemptions from liability of the Trustee hereunder shall extend to its directors, officers, employees and agents.

**SECTION 905.** Subject to the provisions of any contract between the Commission and the Trustee relating to the compensation of the Trustee, the Commission shall, from the revenues of the Toll Road, pay to the Trustee reasonable compensation for all services performed by it hereunder and also all its reasonable expenses, charges and other disbursements and those of its attorneys, agents and employees incurred in and about the administration and execution of the trusts hereby created and the performance of its powers and duties hereunder, and, from such revenues only, shall indemnify and save the Trustee harmless against any liabilities which it may incur in the exercise and performance of its powers and duties hereunder. If the Commission shall fail to make any payment required by this Section, the Trustee may make such payment from any moneys in its possession under the provisions of this Indenture and shall be entitled to a preference therefor over any of the bonds or coupons outstanding hereunder.



**SECTION 906.** It shall be the duty of the Trustee, on or before the 15th day of each month after the opening of the Project or any part thereof for traffic, to file with the Commission a statement setting forth in respect of the preceding calendar month

(a) the amount withdrawn or transferred by it and the amount deposited with it on account of each Fund and Account held by it under the provisions of this Indenture,

(b) the amount on deposit with it at the end of such month to the credit of each such Fund and Account,

(c) a brief description of all obligations held by it as an investment of moneys in each such Fund and Account,

(d) the amount applied to the purchase or redemption of bonds under the provisions of Section 511 of this Indenture and a description of the bonds or portions of bonds so purchased or redeemed, and

(e) any other information which the Commission may reasonably request.

All records and files pertaining to the Toll Road in the custody of the Trustee shall be open at all reasonable times to the inspection of the Commission, the principal underwriters and their agents and representatives.

**SECTION 907.** In case at any time it shall be necessary or desirable for the Trustee to make any investigation respecting any fact preparatory to taking or not taking any action or doing or not doing anything as such Trustee, and in any case in which this Indenture provides for permitting or taking any action, the Trustee may rely conclusively upon any certificate, requisition, opinion or other instrument required or permitted to be filed with it under the provisions of this Indenture, and any such instrument shall be conclusive evidence of such fact to protect the Trustee in any action that it may or may not take or in respect of anything it may or may not do, in good faith, by reason of the supposed existence of such fact. Except as otherwise provided in

(Sec. 908)

90

this Indenture, any request, notice, certificate or other instrument from the Commission to the Trustee shall be deemed to have been signed by the proper party or parties if signed by the State Highway Commissioner or the Chief Engineer and by the Secretary or an Assistant Secretary of the Commission, and the Trustee may accept and rely upon a certificate signed by the Secretary or an Assistant Secretary of the Commission as to any action taken by the Commission.

**SECTION 908.** Except upon the happening of any event of default specified in clauses (a) and (b) of Section 802 of this Indenture, the Trustee shall not be obliged to take notice or be deemed to have notice of any event of default hereunder, unless specifically notified in writing of such event of default by the holders of not less than ten per centum (10%) in aggregate principal amount of the bonds hereby secured and then outstanding.

**SECTION 909.** The bank or trust company acting as Trustee under this Indenture, and its directors, officers, employees or agents, may in good faith buy, sell, own, hold and deal in any of the bonds or coupons issued under and secured by this Indenture, and may join in any action which any bondholder may be entitled to take with like effect as if such bank or trust company were not the Trustee under this Indenture.

**SECTION 910.** The recitals, statements and representations contained herein and in the bonds (excluding the Trustee's certificate of authentication on the bonds) shall be taken and construed as made by and on the part of the Commission and not by the Trustee, and the Trustee assumes and shall be under no responsibility for the correctness of the same.

**SECTION 911.** The Trustee shall be protected and shall incur no liability in acting or proceeding, or in not acting or not proceeding, in good faith, reasonably and in accordance with the terms of this Indenture, upon any resolution, order, notice, request, consent, waiver, certificate, statement, affidavit, requisition, bond or other paper or document which it shall in good faith reasonably believe to be genuine and to have been adopted or signed by the proper board or person or

to have been prepared and furnished pursuant to any of the provisions of this Indenture, or upon the written opinion of any attorney, engineer or accountant believed by the Trustee to be qualified in relation to the subject matter, and the Trustee shall be under no duty to make any investigation or inquiry as to any statements contained or matters referred to in any such instrument. The Trustee shall not be under any obligation to see to the recording or filing of this Indenture or otherwise to the giving to any person of notice of the provisions hereof.

**SECTION 912.** The Trustee may resign and thereby become discharged from the trusts hereby created, by notice in writing to be given to the Commission and to the principal underwriters and published once in a daily newspaper of general circulation published in the City of Richmond, Virginia, and in a daily newspaper of general circulation or a financial journal published in the Borough of Manhattan, City and State of New York, not less than sixty (60) days before such resignation is to take effect, but such resignation shall take effect immediately upon the appointment of a new Trustee hereunder, if such new Trustee shall be appointed before the time limited by such notice and shall then accept the trusts hereof.

**SECTION 913.** The Trustee may be removed at any time by an instrument or concurrent instruments in writing, executed by the holders of not less than a majority in principal amount of the bonds hereby secured and then outstanding and filed with the Commission. A facsimile copy of each such instrument shall be delivered promptly by the Commission to the Trustee. The Trustee may also be removed at any time for any breach of trust or for acting or proceeding in violation of, or for failing to act or proceed in accordance with, any provision of this Indenture with respect to the duties and obligations of the Trustee by any court of competent jurisdiction upon the application of the Commission pursuant to resolution or the holders of not less than ten per centum (10%) in aggregate principal amount of the bonds then outstanding under this Indenture.

**SECTION 914.** If at any time hereafter the Trustee shall resign, be removed, be dissolved or otherwise become incapable of acting, or the bank or trust company acting as Trustee shall be taken over by any

(Sec. 915)

governmental official, agency, department or board, the position of Trustee shall thereupon become vacant. If the position of Trustee shall become vacant for any of the foregoing reasons or for any other reason, the Commission shall appoint a Trustee to fill such vacancy. The Commission shall publish notice of any such appointment by it made once in each week for four (4) successive weeks in a daily newspaper of general circulation published in the City of Richmond, Virginia, and in a daily newspaper of general circulation or a financial journal published in the Borough of Manhattan, City and State of New York, and, before the second publication of such notice, shall mail a copy thereof to the principal underwriters.

At any time within one year after any such vacancy shall have occurred, the holders of a majority in principal amount of the bonds hereby secured and then outstanding, by an instrument or concurrent instruments in writing, executed by such bondholders and filed with the Commission, may appoint a successor Trustee, which shall supersede any Trustee theretofore appointed by the Commission. Facsimile copies of each such instrument shall be delivered promptly by the Commission to the predecessor Trustee and to the Trustee so appointed by the bondholders.

If no appointment of a successor Trustee shall be made pursuant to the foregoing provisions of this Section within ten (10) days after the vacancy shall have occurred, the holder of any bond outstanding hereunder or any retiring Trustee may apply to any court of competent jurisdiction within the State of Virginia to appoint a successor Trustee. Such court may thereupon, after such notice, if any, as such court may deem proper and prescribe, appoint a successor Trustee.

Any Trustee hereafter appointed shall be a bank or trust company duly authorized to exercise corporate trust powers and subject to examination by federal or state authority, of good standing, and having a combined capital and surplus aggregating not less than Five Million Dollars (\$5,000,000).

SECTION 915. Every successor Trustee appointed hereunder shall execute, acknowledge and deliver to its predecessor, and also to the Commission, an instrument in writing accepting such appointment

hereunder, and thereupon such successor Trustee, without any further act, shall become fully vested with all the rights, immunities, powers and trusts, and subject to all the duties and obligations, of its predecessor; but such predecessor shall, nevertheless, on the written request of its successor or of the Commission, and upon payment of the expenses, charges and other disbursements of such predecessor which are payable pursuant to the provisions of Section 906 of this Article, execute and deliver an instrument transferring to such successor Trustee all the rights, immunities, powers and trusts of such predecessor hereunder; and every predecessor Trustee shall deliver all property and moneys held by it hereunder to its successor. Should any instrument in writing from the Commission be required by any successor Trustee for more fully and certainly vesting in such Trustee the rights, immunities, powers and trusts hereby vested or intended to be vested in the predecessor Trustee, any such instrument in writing shall and will, on request, be executed, acknowledged and delivered by the Commission.

Notwithstanding any of the foregoing provisions of this Article, any bank or trust company having power to perform the duties and execute the trusts of this Indenture and otherwise qualified to act as Trustee hereunder with or into which the bank or trust company acting as Trustee may be merged or consolidated, or to which the assets and business of such bank or trust company may be sold, shall be deemed the successor of the Trustee.

## ARTICLE X.

### EXECUTION OF INSTRUMENTS BY BONDHOLDERS AND PROOF OF OWNERSHIP OF BONDS.

SECTION 1001. Any request, direction, consent or other instrument in writing required or permitted by this Indenture to be signed or executed by bondholders may be in any number of concurrent instruments of similar tenor and may be signed or executed by such bondholders or their attorneys or legal representatives. Proof of the execution of any such instrument and of the ownership of bonds shall be sufficient for any purpose of this Indenture and shall be conclusive in favor of the Trustee with regard to any action taken by it under such instrument if made in the following manner:

(Sec. 1001)

94

(a) The fact and date of the execution by any person of any such instrument may be proved by the verification of any officer in any jurisdiction who, by the laws thereof, has power to take affidavits within such jurisdiction, to the effect that such instrument was subscribed and sworn to before him, or by an affidavit of a witness to such execution. Where such execution is by an officer of a corporation or association or a member of a partnership on behalf of such corporation, association or partnership such verification or affidavit shall also constitute sufficient proof of his authority.

(b) The fact of the holding of coupon bonds hereunder by any bondholder and the amount and the numbers of such bonds and the date of his holding the same may be proved by the affidavit of the person claiming to be such holder, if such affidavit shall be deemed by the Trustee to be satisfactory, or by a certificate executed by any trust company, bank, banker or any other depository, wherever situated, if such certificate shall be deemed by the Trustee to be satisfactory, showing that at the date therein mentioned such person had on deposit with or exhibited to such trust company, bank, banker, or other depository the bonds described in such certificate. The Trustee may conclusively assume that such ownership continues until written notice to the contrary is served upon it. The ownership of registered bonds without coupons shall be proved by the registration books kept under the provisions of Section 206 of this Indenture.

However, nothing contained in this Article shall be construed as limiting the Trustee to such proof, it being intended that the Trustee may accept any other evidence of the matters herein stated which it may deem sufficient. Any request or consent of the holder of any bond shall bind every future holder of the same bond in respect of anything done by the Trustee in pursuance of such request or consent.

Notwithstanding any of the foregoing provisions of this Section, the Trustee shall not be required to recognize any person as a holder of any bond or coupon or to take any action at his request unless such bond or coupon shall be deposited with it.

**ARTICLE XI.**

**SUPPLEMENTAL INDENTURES.**

**SECTION 1101.** The Commission and the Trustee may, from time to time and at any time, enter into such indentures supplemental hereto as shall not be inconsistent with the terms and provisions hereof (which supplemental indentures shall thereafter form a part hereof),

(a) to cure any ambiguity or formal defect or omission in this Indenture or in any supplemental indenture, or

(b) to grant to or confer upon the Trustee for the benefit of the bondholders any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the bondholders or the Trustee.

At least thirty (30) days prior to the execution of any supplemental indenture for any of the purposes of this Section, the Trustee shall cause a notice of the proposed execution of such supplemental indenture to be mailed, postage prepaid, to the principal underwriters, all registered owners of bonds at their addresses as they appear on the registration books and all other bondholders who shall have filed their names and addresses with the Trustee for such purpose. Such notice shall briefly set forth the nature of the proposed supplemental indenture and shall state that copies thereof are on file at the principal office of the Trustee for inspection by all bondholders. A failure on the part of the Trustee to mail the notice required by this Section shall not affect the validity of such supplemental indenture.

**SECTION 1102.** Subject to the terms and provisions contained in this Section, and not otherwise, the holders of not less than two-thirds (2/3) in aggregate principal amount of the bonds then outstanding shall have the right, from time to time, anything contained in this Indenture to the contrary notwithstanding, to consent to and approve the execution by the Commission and the Trustee of such indenture or indentures supplemental hereto as shall be deemed necessary or desirable by the Commission for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions contained in this Indenture or in any supplemental indenture; provided, however, that nothing herein contained shall permit,

(Sec. 1102)

96

or be construed as permitting, (a) an extension of the maturity of the principal of or the interest on any bond issued hereunder, or (b) a reduction in the principal amount of any bond or the redemption premium or the rate of interest thereon, or (c) the creation of a lien upon or a pledge of revenues other than the lien and pledge created by this Indenture, or (d) a preference or priority of any bond or bonds over any other bond or bonds, or (e) a reduction in the aggregate principal amount of the bonds required for consent to such supplemental indenture. Nothing herein contained, however, shall be construed as making necessary the approval by bondholders of the execution of any supplemental indenture as authorized in Section 1101 of this Article.

If at any time the Commission shall request the Trustee to enter into any supplemental indenture for any of the purposes of this Section, the Trustee shall, at the expense of the Commission, cause notice of the proposed execution of such supplemental indenture to be published once in each week for four (4) successive weeks in a daily newspaper of general circulation published in the City of Norfolk, Virginia, and in a daily newspaper of general circulation or a financial journal published in the Borough of Manhattan, City and State of New York, and, on or before the date of the first publication of such notice, the Trustee shall also cause a similar notice to be mailed, postage prepaid, to the principal underwriters, all registered owners of bonds at their addresses as they appear on the registration books and all other bondholders who shall have filed their names and addresses with the Trustee for such purpose. Such notice shall briefly set forth the nature of the proposed supplemental indenture and shall state that copies thereof are on file at the principal office of the Trustee for inspection by all bondholders. The Trustee shall not, however, be subject to any liability to any bondholder by reason of its failure to mail the notice required by this Section, and any such failure shall not affect the validity of such supplemental indenture when consented to and approved as provided in this Section.

Whenever, at any time within one year after the date of the first publication of such notice, the Commission shall deliver to the Trustee an instrument or instruments in writing purporting to be executed by the holders of not less than two-thirds (2/3) in aggregate principal amount of the bonds then outstanding, which instrument or instruments shall refer to the proposed supplemental indenture described



in such notice and shall specifically consent to and approve the execution thereof in substantially the form of the copy thereof referred to in such notice, thereupon, but not otherwise, the Trustee may execute such supplemental indenture in substantially such form, without liability or responsibility to any holder of any bond, whether or not such holder shall have consented thereto.

If the holders of not less than two-thirds (2/3) in aggregate principal amount of the bonds outstanding at the time of the execution of such supplemental indenture shall have consented to and approved the execution thereof as herein provided, no holder of any bond shall have any right to object to the execution of such supplemental indenture, or to object to any of the terms and provisions contained therein or the operation thereof, or in any manner to question the propriety of the execution thereof, or to enjoin or restrain the Trustee or the Commission from executing the same or from taking any action pursuant to the provisions thereof.

Upon the execution of any supplemental indenture pursuant to the provisions of this Section, this Indenture shall be and be deemed to be modified and amended in accordance therewith, and the respective rights, duties and obligations under this Indenture of the Commission, the Trustee and all holders of bonds then outstanding shall thereafter be determined, exercised and enforced in all respects under the provisions of this Indenture as so modified and amended.

SECTION 1103. The Trustee is authorized to join with the Commission in the execution of any such supplemental indenture and to make the further agreements and stipulations which may be contained therein. Any supplemental indenture executed in accordance with the provisions of this Article shall thereafter form a part of this Indenture, and all of the terms and conditions contained in any such supplemental indenture as to any provision authorized to be contained therein shall be and shall be deemed to be part of the terms and conditions of this Indenture for any and all purposes. In case of the execution and delivery of any supplemental indenture, express reference may be made thereto in the text of any bonds issued thereafter, if deemed necessary or desirable by the Trustee.

SECTION 1104. In each and every case provided for in this Article, the Trustee shall be entitled to exercise its discretion in determining

(Sec. 1201)

98

whether or not any proposed supplemental indenture, or any term or provision therein contained, is desirable, having in view the purposes of such instrument, the needs of the Commission, the rights and interests of the bondholders, and the rights, obligations and interests of the Trustee, and the Trustee shall not be under any responsibility or liability to the Commission or to any bondholder or to anyone whomsoever for its refusal in good faith to enter into any such supplemental indenture if such agreement is deemed by it to be contrary to the provisions of this Article. The Trustee shall be entitled to receive, and shall be fully protected in relying upon, the opinion of any counsel approved by it, who may be counsel for the Commission, as evidence that any such proposed supplemental agreement does or does not comply with the provisions of this Indenture, and that it is or is not proper for it, under the provisions of this Article, to join in the execution of such supplemental indenture.

#### ARTICLE XII.

##### DEFERANCE.

SECTION 1201. If, and when the bonds secured hereby shall have become due and payable in accordance with their terms or shall have been duly called for redemption or irrevocable instructions to call the bonds for redemption shall have been given by the Commission to the Trustee, the whole amount of the principal and the interest and the premium, if any, so due and payable upon all of the bonds and coupons then outstanding shall be paid or sufficient moneys, or direct obligations of the United States Government the principal of and the interest on which when due will provide sufficient moneys, shall be held by the Trustee or the Paying Agents for such purpose under the provisions of this Indenture, and provision shall also be made for paying all other sums payable hereunder by the Commission, then and in that case the right, title and interest of the Trustee shall thereupon cease, determine and become void, and the Trustee in such case, on demand of the Commission, shall release this Indenture and shall execute such documents to evidence such release as may be reasonably required by the Commission, and shall turn over to the Commission or to such officer, board or body as may then be entitled by law to receive the same any surplus in any account in the Sinking Fund and all balances remaining in any other funds or accounts other than moneys held for the redemption or payment of bonds or coupons; otherwise this Inden-

ture shall be, continue and remain in full force and effect; provided, however, that in the event direct obligations of the United States Government shall be deposited with and held by the Trustee or the Paying Agents as hereinabove provided, and in addition to the requirements set forth in Article III of this Indenture, the Trustee shall within thirty (30) days after such obligations shall have been deposited with it cause a notice signed by the Trustee to be published once in a daily newspaper of general circulation published in the City of Norfolk, Virginia, and in a daily newspaper of general circulation or a financial journal published in the Borough of Manhattan, City and State of New York, setting forth (a) the date designated for the redemption of the bonds, (b) a description of the obligations so held by it and (c) that this Indenture has been released in accordance with the provisions of this Section.

All moneys and obligations held by the Trustee or the Paying Agents pursuant to this Section shall be held in trust and the principal and interest of said obligations when received, and said moneys, applied to the payment, when due, of the principal and the interest and the premium, if any, of the bonds so called for redemption.

#### ARTICLE XIII

##### MISCELLANEOUS PROVISIONS.

SECTION 1301. In the event of the dissolution of the Commission all of the covenants, stipulations, obligations and agreements contained in this Indenture by or in behalf of or for the benefit of the Commission shall bind or inure to the benefit of the successor or successors of the Commission from time to time and any officer, board, commission, authority, agency or instrumentality to whom or to which any power or duty affecting such covenants, stipulations, obligations and agreements shall be transferred by or in accordance with law, and the word "Commission" as used in this Indenture shall include such successor or successors.

SECTION 1302. Any bank or trust company with or into which any Paying Agent may be merged or consolidated, or to which the assets and business of such Paying Agent may be sold, shall be deemed the successor of such Paying Agent for the purposes of this Indenture. If the position of any Paying Agent shall become vacant for any reason, the Commission shall, within thirty (30) days thereafter, appoint a bank or trust company located in the same city as Paying

(Sec. 1303)

100

Agent to fill such vacancy; provided, however, that if the Commission shall fail to appoint such Paying Agent within said period, the Trustee shall make such appointment.

**SECTION 1303.** Any notice, demand, direction, request or other instrument authorized or required by this Indenture to be given to or filed with the Commission or the Trustee shall be deemed to have been sufficiently given or filed for all purposes of this Indenture if and when sent by registered mail, return receipt requested:

to the Commission, if addressed to State Highway Commission, Richmond, Virginia; and

to the Trustee, if addressed to Virginia National Bank, Norfolk, Virginia, or to any successor Trustee, if addressed to it at its principal office.

All documents received by the Trustee under the provisions of this Indenture, or photostatic copies thereof, shall be retained in its possession until this Indenture shall be released under the provisions of Section 1201 hereof, subject at all reasonable times to the inspection of the Commission, the Consulting Engineers, the Traffic Engineers, the principal underwriters, any bondholder, and the agents and representatives thereof.

**SECTION 1304.** If, because of the temporary or permanent suspension of publication of any newspaper or financial journal or for any other reason, the Trustee shall be unable to publish in a newspaper or financial journal any notice required to be published by the provisions of this Indenture, the Trustee shall give such notice in such other manner as in the judgment of the Trustee shall most effectively approximate such publication thereof, and the giving of such notice in such manner shall for all purposes of this Indenture be deemed to be compliance with the requirement for the publication thereof.

**SECTION 1305.** Except as herein otherwise expressly provided, nothing in this Indenture expressed or implied is intended or shall be construed to confer upon any person, firm or corporation other than the parties hereto and the holders of the bonds issued under and secured by this Indenture any right, remedy or claim, legal or equitable, under or by reason of this Indenture or any provision hereof, this Indenture and all its provisions being intended to be and being for the sole and exclusive benefit of the parties hereto and the holders from time to time of the bonds issued hereunder.

**SECTION 1306.** In case any one or more of the provisions of this Indenture or of the bonds or coupons issued hereunder shall for any reason be held to be illegal or invalid, such illegality or invalidity shall not affect any other provision of this Indenture or of said bonds or coupons, but this Indenture and said bonds and coupons shall be construed and enforced as if such illegal or invalid provision had not been contained therein. In case any covenant, stipulation, obligation or agreement contained in the bonds or in this Indenture shall for any reason be held to be in violation of law, then such covenant, stipulation, obligation or agreement shall be deemed to be the covenant, stipulation, obligation or agreement of the Commission to the full extent permitted by law.

**SECTION 1307.** All covenants, stipulations, obligations and agreements of the Commission contained in this Indenture shall be deemed to be covenants, stipulations, obligations and agreements of the Commission and of the State of Virginia to the full extent authorized by the State Revenue Bond Act and permitted by the Constitution of Virginia. No covenant, stipulation, obligation or agreement contained herein shall be deemed to be a covenant, stipulation, obligation or agreement of any present or future member, officer, employee or agent of the Commission in his individual capacity, and neither the members of the Commission nor any officer thereof executing the bonds shall be liable personally on the bonds or be subject to any personal liability or accountability by reason of the issuance thereof. No member, officer, employee or agent of the Commission shall incur any personal liability in acting or proceeding or in not acting or not proceeding, in good faith, reasonably and in accordance with the terms of this Indenture and the State Revenue Bond Act. This Indenture is executed with the intent that the laws of the State of Virginia shall govern its construction.

**SECTION 1308.** The principal underwriters shall be under no obligation to any bondholder for any action that they may or may not take or in respect of anything that they may or may not do by reason of any information contained in any reports or other documents received by them under the provisions of this Indenture. The immunities and exemptions from liability of the principal underwriters hereunder shall extend to their partners, directors, officers, successors, employees and agents.

(Sec. 1310)

SECTION 1309. This Indenture may be executed in multiple counterparts, each of which shall be regarded for all purposes as an original; and such counterparts shall constitute but one and the same instrument.

SECTION 1310. Any headings preceding the texts of the several articles hereof, and any table of contents or marginal notes appended to copies hereof, shall be solely for convenience of reference and shall not constitute a part of this Indenture, nor shall they affect its meaning, construction or effect.

IN WITNESS WHEREOF, the State Highway Commission has caused this Indenture to be executed in its behalf by the State Highway Commissioner, the Chairman of said Commission, and its official seal to be impressed hereon and attested by its Secretary, and Virginia National Bank has caused this Indenture to be executed in its behalf by its President or a Vice President and its corporate seal to be impressed hereon and attested by its Cashier or an Assistant Cashier, all as of the day and year first above written.

STATE HIGHWAY COMMISSION,

By.....  
*State Highway Commissioner,  
Chairman of said Commission*

[SEAL]

Attest:

.....  
*Secretary*

VIRGINIA NATIONAL BANK,  
*Trustee*

By.....

*Vice President*

[SEAL]

Attest:

.....  
*Assistant Cashier*

We hereby approve the provisions of the foregoing Indenture.

.....  
*State Treasurer of Virginia*

.....  
*State Comptroller of Virginia*

COMMONWEALTH OF VIRGINIA	}	ss
CITY OF RICHMOND		

Be it remembered that on the ..... day of ....., 1965, before me, the subscriber, a notary public within and for said City and State, personally came Douglas B. Fugate, who is the State Highway Commissioner and Chairman of the State Highway Commission of the State of Virginia, and acknowledged that the name of the Commission was subscribed to the foregoing Indenture by himself as such officer, that the seal impressed hereon is the seal of the Commission, that said name was subscribed and said seal impressed by the direction and authority of the Commission, and that the foregoing Indenture is the free act and deed of the Commission, for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my official seal on the day and year aforesaid.

.....  
 Notary Public

My commission expires ....., 19...

(Seal)

COMMONWEALTH OF VIRGINIA }  
CITY OF NORFOLK } ss

Be it remembered that on the ..... day of ....., 1965, before me, the subscriber, a notary public within and for said City and State, personally came ....., who is a Vice President of said Virginia National Bank, and acknowledged that the name of said bank was subscribed to the foregoing Indenture by himself as Vice President thereof, that the seal impressed thereon is the seal of said bank, that said name was subscribed and said seal impressed by the direction and authority of said bank, and that the foregoing Indenture is the free act and deed of said bank, for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my official seal on the day and year aforesaid.

.....  
Notary Public

My commission expires ....., 19...

(Seal)