NORTH TEXAS TOLLWAY AUTHORITY

BD 2.6	INVESTMENT POLICY	Resolution Number	16-36
		Resolution Date	3/16/2016
		Effective Date	3/16/2016
		Revision Date	3/16/2016
		Procedure Number	BD 2.6A

I. PURPOSE

To set forth the policy ("*Investment Policy*") of the North Texas Tollway Authority ("*NTTA*") regarding the investment of its funds and funds under NTTA's control ("*NTTA Funds*") including NTTA's investment strategy ("*Investment Strategy*") for each fund or group of funds.

II. POLICY STATEMENT

(A) **General.** NTTA will invest funds to preserve the principal while

(1) meeting NTTA's daily cash flow demands,

(2) conforming to the requirements of trust agreements and other bond documents, and

(3) complying with all applicable statutes governing the investment of NTTA Funds, including the Public Funds Investment Act, Chapter 2256, Texas Government Code ("*PFIA*").

(B) **Primary Objectives.** The primary objectives, in order of priority, of NTTA's investment activities are:

(1) Safety: NTTA will undertake its investments in a manner that seeks to ensure the preservation of capital in the overall portfolio.

(2) Liquidity: The investment portfolio will remain sufficiently liquid to enable NTTA to meet all its operating requirements that are reasonably anticipated.

(3) Diversification: NTTA will diversify its investments by sector and maturity to reduce market and credit risks.

(4) Yield**:** The investment portfolio shall be designed with the objective of attaining a reasonable market yield throughout budgetary and economic cycles, taking into account the investment risk constraints and

	the cash flow characteristics of the portfolio. (C) **Buy and Hold Strategy.** NTTA will use a "buy and hold" portfolio strategy, purchasing investments with the intent to hold them until maturity. Maturity dates will be matched with cash flow requirements. NTTA may liquidate investments before maturity: (1) to minimize loss of capital if an investment is experiencing declining credit, (2) if cash flow needs require that the investment be liquidated, or (3) if a swap with a positive three-month horizon basis can be executed and fits the needs of the portfolio.
III. RESPONSIBILTIES	(A) **Investment Officers.** (1) NTTA's Board of Directors ("*Board*") has designated NTTA's Treasurer, Assistant Treasurer and Controller as NTTA's investment officers, as described in Section 2256.005(f) of the PFIA (each an "*Investment Officer*" and collectively the "*Investment Officers*"). Other than pursuant to applicable trust agreements, bond resolutions or other authorizing instruments requiring certain funds be invested by the trustee under a Trust Agreement (each a "*Trustee*") upon direction of NTTA, or pursuant to a contract with an investment advisor to NTTA ("*Investment Advisor*"), the Investment Officers have primary responsibility for all transactions executed under this Investment Policy. (2) The Assistant Treasurer and Controller perform the duties of the Investment Officers at the direction of or in the absence of the Treasurer. (3) The Treasurer or designee must establish a system of controls to regulate the activities of the Trustees, Investment Advisors and any subordinate officials who perform administrative functions related to the investment of NTTA Funds. The system should include references to and controls for (a) safekeeping of securities and collateral, (b) master repurchase agreements, (c) wire transfer agreements, (d) collateral/depository agreements, and (e) banking services contracts. No person may engage in an investment transaction, deposit, withdrawal, transfer or otherwise manage NTTA Funds except as provided under the terms of this Investment Policy, the procedures established by the Treasurer and the

provisions of the trust agreements.

(4) The Treasurer or designee must establish written procedures for the operations of the investment of NTTA Funds consistent with this Investment Policy and the provisions of the trust agreements.

(5) In conjunction with the annual financial audit of the NTTA System, the Investment Officers shall review compliance with, and the Treasurer or designee shall revise as necessary, management controls on investments and adherence to the investment policies as set forth in this Investment Policy.

(6) Investment Officers and NTTA's Chief Financial Officer *("Chief Financial Officer"),* if the Chief Financial Officer is not also the Treasurer, shall attend at least one training session, from an independent source listed in Attachment D to this Investment Policy, containing at least 10 hours of instruction relating to the person's responsibilities under the PFIA (a) within 12 months after taking office or assuming duties of the office, and (b) not less than once each fiscal biennium thereafter. The designated training must include education in investment controls, security risks, strategy risks, market risks, diversification of investment portfolio assets, and compliance with the PFIA.

(B) **Board of Directors.**

(1) The Board is responsible for (a) designating by resolution investment officers required under the PFIA, (b) annually reviewing the Investment Policy and Investment Strategy and, if revisions are approved, adopting by resolution the revised Investment Policy and/or Investment Strategy, and (c) receiving and reviewing quarterly investment reports. The Board shall, at least annually, approve banks, broker/dealers, primary dealers, and insurance companies authorized to engage in investment transactions with NTTA. The Board shall, at least every five years, designate a depository bank pursuant to Section IV (L) of this Investment Policy.

(2) The Board may delegate to a Board committee the responsibility for reviewing NTTA's investment portfolio and strategy, and for advising the Investment Officers.

(C) **Investment Advisor.** NTTA may, from time to time,

	employ United States of America ("U.S.") Securities and Exchange Commission ("*SEC*") registered and licensed individuals or firms as an Investment Advisor to assist the Investment Officers in carrying out the Investment Policy and Investment Strategy and complying with the requirements of the PFIA.
IV. SCOPE	(A) General. (1) This Investment Policy applies to all NTTA financial assets, other than any retirement, deferred compensation or other employee benefit plans maintained by NTTA. These funds are accounted for in NTTA's annual comprehensive financial reports and defined in the Investment Strategy in Attachment A to this Investment Policy as "Type I Funds," "Type II Funds," "Type III Funds," "Type IV Funds," "Type V Funds" or "Liquidity Buffer Accounts" (each a "Fund Type"). (2) NTTA may consolidate and commingle cash balances by Fund Type for investment efficiency and maximization of investment earnings. Investment income will be allocated to the various funds based on their respective balances and in accordance with generally accepted accounting principles. Earnings distributions will be reported as part of the investment reports. (B) Standard of Care. (1) Investment Officers will use the "prudent person" standard of care when managing NTTA's investment portfolio. Pursuant to the PFIA, investments shall be made with judgment and care, under circumstances then prevailing, that persons of prudence, discretion, and intelligence would exercise in the management of their own affairs. Investments will be made not for speculation, but for investment, considering the probable safety of the capital as well as the probable income to be derived. (2) Investment Officers acting in good faith and in accordance with this Investment Policy shall not have personal liability for an individual security's credit risk or market price changes, provided deviations from expectations are reported to appropriate supervisors in a timely fashion and appropriate action is taken to control adverse developments. (3) Investment Officers will take all prudent measures to liquidate investments that are no longer authorized

	investments under the PFIA and this Investment Policy, including through loss of a minimally-required credit rating under the PFIA or a Trust Agreement. Ratings shall be monitored using nationally recognized financial information sources, including credit rating agency websites. In the event that the credit rating relating to any investment is placed under CreditWatch by a credit rating agency, Investment Officers shall closely monitor the investment and take such action as is prudent to protect the value of the investment. The status of each investment found to be on negative CreditWatch must be communicated to appropriate supervisors on a timely basis. (C) Ethics and Conflicts of Interest. (1) Investment Officers must refrain from personal business activity that could conflict with the proper execution of the Investment Policy or that could impair their ability to make impartial investment decisions. Investment Officers shall disclose any material interests in financial institutions with which they conduct business. Investment Officers shall further disclose any personal financial/investment positions or business relationships with NTTA investment counterparties that could impact the investment portfolio. Investment Officers are subject to NTTA's Employee Ethics Policy. (2) Investment Officers shall not undertake personal investment transactions with the same firm or individual with which business is conducted on behalf of NTTA. An Investment Officer who has a personal business relationship with an organization offering to engage in an investment transaction with NTTA shall file a statement disclosing that personal business interest pursuant to the NTTA Ethics Policy. An Investment Officer who is related within the second degree by affinity or consanguinity as determined under the PFIA to an individual seeking to sell an investment to NTTA shall file a statement disclosing that relationship. Any statement required under this subsection must be filed with the Texas Ethics Commission, the NTTA Secretary and the NTTA Ethics Officer. (D) Reporting. (1) Investment Officers shall prepare and submit to the Board a written investment report on no less than a quarterly basis that complies with PFIA requirements and reporting requirements imposed by

the Board.

(2) Investment Officers must maintain complete detail and transaction data to record and document investment activity, including competitive bidding.

(3) On an annual basis an independent auditor shall review the investment reports and report the results of that review to the Board.

(E) Financial Institutions and Broker/Dealers.

(1) At least annually, the Board shall review, revise and adopt a list of qualified financial institutions that are authorized to engage in investment transactions with NTTA based on recommendations of the Investment Officers. The list of authorized financial institutions is included as Attachment B to this Investment Policy.

(2) Qualified financial institutions shall include only banks, broker/dealers, primary dealers, and insurance companies (for guaranteed investment contracts) doing business in the State of Texas and who are licensed or otherwise registered and in good standing, as applicable, with the Texas State Securities Commission, the Securities and Exchange Commission, the Financial Industry Regulatory Authority (FINRA) or insurance regulatory organizations. Qualification criteria shall also include credit and financial stability, investment product availability, transaction execution expertise, and investment advice. Investment Officers shall obtain and retain basic contact, background and operational information on each firm.

(3) All business organizations offering to engage in an investment transaction with NTTA must sign the certification form attached hereto as Attachment C ("Investment Certification"), including acceptable amendments thereto, acknowledging that the organization has received and reviewed this Investment Policy and that the organization has implemented reasonable procedures and controls to prevent investment transactions that are not authorized by this Investment Policy. Re-certification will be executed with any material changes to this Investment Policy. Investment Officers shall have received an executed Investment Certification before execution of any transactions with the business organization.

(4) NTTA's depository institution shall not be used as a broker/dealer in order to perfect delivery versus payment transactions.

(F) Competitive Bids.
Investment Officers will obtain competitive offers and/or bids from at least three financial institutions for all individual securities purchases and sales except for (1) transactions with money market mutual funds and local government investment pools, and (2) new-issue treasury and agency securities through an approved financial institution. The purchase of new-issue treasury and agency securities shall be rotated through authorized broker/dealers. The Investment Officer shall develop and maintain procedures for ensuring competition in the transactions.

(G) Safekeeping.
(1) All securities purchased by NTTA under this Investment Policy or under the terms of a repurchase agreement shall be designated as assets of NTTA, shall be settled on a delivery-versus-payment basis, and shall be stored for safekeeping with an NTTA approved, independent third-party custodian under an executed agreement and providing for original safekeeping receipts/reports.

(2) The Trustee under the respective Trust Agreement may be designated as a custodian. For funds not held under a Trust Agreement, the custodian shall be a qualified institution of such size and expertise as is necessary to provide the services needed to protect and secure the investment assets of NTTA.

(3) NTTA's independent auditor shall review safekeeping procedures annually.

(H) Diversification.
(1) NTTA policy is to diversify its investment portfolios. Assets shall be diversified to minimize the risk of loss resulting from overconcentration of assets in a specific maturity, a specific issuer or a specific class of securities. Investment Officers shall determine diversification strategies for all funds and shall review such strategies as required. In establishing specific diversification strategies, the following general policies and constraints shall apply:

(a) Portfolio maturities shall be matched to anticipated liabilities to avoid undue market and liquidity risk.

(b) Maturities selected shall provide for stability of income and liquidity.

(c) Disbursement and payroll dates shall be covered through maturing investments and cash equivalent instruments.

(d) No investment shall have a maturity in excess of five years unless the applicable Trust Agreement authorizes a specific maximum maturity for funds invested pursuant to the Trust Agreement.

(2) Diversification parameters by security type shall not exceed a maximum portfolio percentage of:

	Maximum % of Portfolio
Obligations of the U.S. Treasury:	100%
U.S. government agencies & instrumentalities:	90%
Obligations of the State of Texas or any U.S. state, its agencies and Instrumentalities:	20%
Fully insured or collateralized CDs — maximum by issuer:	10%
Repurchase agreements:	20%
• Flex repurchase agreements for bond funds:	100%
Bankers acceptances:	5%
Commercial paper:	20%
• Maximum by issuer:	10%
• Maximum by industry:	10%
Money market funds:	25%

	- Maximum percent ownership of fund: 5% Mutual funds: 10% - Maximum percent ownership of fund: 5% Constant dollar local government investment pools: 70% - Maximum percent ownership of pool: 10% (I) Authorized NTTA System Investments. (1) In accordance with applicable federal and state laws and the trust agreements for obligations secured by the revenues of the North Texas Tollway Authority System, and in furtherance of the Investment Strategy, only the following investment types, as further defined by the PFIA or such trust agreements, are authorized for the investment of NTTA Funds in funds and accounts created under such trust agreements: (a) Direct and senior obligations of the U.S., its agencies and instrumentalities, with a stated maturity not to exceed five years. (b) Direct and senior obligations of the State of Texas or any U.S. state, including their agencies and instrumentalities, counties, cities, and other political subdivisions rated not less than "A" or its equivalent by two nationally recognized credit rating agencies, with a stated maturity not to exceed five years. (c) Certificates of deposit issued by or through a depository institution that has its main office or a branch office in the State of Texas that are (i) guaranteed or insured by the Federal Deposit Insurance Corporation, National Credit Union Share Insurance Fund or its successor(s), and/or (ii) secured by obligations described in Section IV (I) (1) (a) or (b) of this Investment Policy, with a stated maturity not to exceed one year.

(d) Direct and reverse repurchase agreements as defined by the PFIA under the terms of a Securities Industry and Financial Markets Association Master Repurchase Agreement and collateralized in accordance with this Investment Policy. Bond proceeds may be invested in a single flex repurchase agreement if the Executive Director and the Chief Financial Officer determine that such an investment is necessary

(i) to comply with federal tax arbitrage restrictions,

(ii) to facilitate arbitrage record-keeping, calculations and expenditure draws, or

(iii) to lock in positive yields in a declining interest rate environment.

The term of any direct repurchase agreement may not exceed one year, except that the term of a flex repurchase agreement used for bond proceeds may exceed one year but must be based on the expenditure plan of the bonds.

The term of any reverse repurchase agreement may not exceed 90 days after the date the reverse repurchase agreement is delivered. Money received by NTTA under the terms of a reverse repurchase agreement shall be used to acquire additional authorized investments, but the stated maturity of authorized investments acquired must not exceed the expiration date of the reverse repurchase agreement.

(e) Banker's acceptances with a stated maturity of 180 days or less and whose endorsing banks are constantly monitored as to financial solvency by the Investment Officers.

(f) Commercial paper rated not less than "A1"/"P1" (or an equivalent rating) by at least two nationally recognized credit rating agencies with a stated maturity of 180 days or less.

(g) AAA-rated, SEC registered no-load money market mutual funds.

(h) AAA-rated, SEC registered, no-load mutual funds with an average weighted maturity of less than two years and invested exclusively in obligations described by Section IV (I) of this Investment Policy, continuously rated as to investment quality by at least one nationally recognized credit rating agency. Such no-load mutual funds are not authorized for bond proceeds, reserves, and funds held for debt service in accordance with the PFIA.

(i) Constant dollar, Texas local government investment pools as described by the PFIA and authorized by the Board.

(j) Collateralized guaranteed investment contracts ("GICs"), with a defined termination date and secured by direct obligations of the U.S. or its agencies and instrumentalities and pledged to NTTA. GICs are restricted to use for investment of bond proceeds.

(2) Maximum maturities for any authorized investment by Fund type are established in the Investment Strategy.

(J) Authorized Investments for NTTA Special Projects System.

(1) In accordance with applicable federal and state laws and the trust agreement for obligations secured by the revenues of NTTA's Special Project System and in furtherance of the Investment Strategy, only the following investment types, as further defined by the PFIA or such trust agreement, are authorized for the investment of NTTA Funds in funds and accounts created under such Trust Agreement:

(a) "Government Obligations":

(i) direct, noncallable obligations of the U.S., including obligations that are unconditionally guaranteed by the U.S.,

(ii) noncallable obligations of an agency or instrumentality of the U.S., including obligations that are unconditionally guaranteed or insured by the agency or instrumentality and that, on the date of the purchase thereof are rated as to

	investment quality by a nationally recognized credit rating firm not less than "AAA" or its equivalent, and (iii) noncallable obligations of a state or an agency or a county, municipality, or other political subdivision of a state that have been refunded and that, on the date purchased are rated as to investment quality by a nationally recognized credit rating firm not less than "AAA" or its equivalent. (b) Certificates of deposit where the certificates of deposit are collaterally secured by Government Obligations and held by a third-party as escrow agent or custodian, of a market value not less than the amount of the certificates of deposit so secured, including interest, except to the extent the certificates of deposit are insured by an agency of the U.S. (c) Repurchase agreements when collateralized by Government Obligations and held by a third-party as escrow agent or custodian, of a market value not less than the amount of the repurchase agreement so collateralized, including interest. (d) Money market funds that invest solely in obligations of the Unites States of America, its agencies and instrumentalities, and having a rating by Standard & Poor's of "AAAm-G" or "AAA-m," or if rated by Moody's Investor's Services, having a rating of "Aaa." (e) Collateralized investment agreement or other contractual agreements with corporations, financial institutions, or national associations within the U.S. provided that the senior long-term debt of such corporations, institutions or associations is rated "AAA" by a nationally recognized credit rating agency. (f) Investments in authorized investments described in Section IV (J) through local government investment pools as described by the PFIA and authorized by the Board.

(2) Maximum maturities for any authorized investment by Fund Type are established in the Investment Strategy.

(K) Proxy Voting.
An Investment Officer shall execute and deliver any proxies for mutual funds to be voted on behalf of NTTA based upon the Investment Officer's determination as to what vote would be most beneficial to NTTA.

(L) Depository Designation.

(1) NTTA will designate one banking institution through a competitive procurement process as NTTA's depository and central banking services provider at least once every five years. Factors in selecting a depository shall include the services provided, cost of services provided, credit worthiness, earnings potential, and collateralization of each financial institution. This institution will be used for normal banking services, including disbursements, deposits, and safekeeping of securities.

(2) Depository agreements executed in accordance with the U.S. Financial Institutions Reform, Recovery and Enforcement Act of 1989 ("FIRREA") will be established before funds are transferred to a depository.

(3) Other banking institutions from which NTTA may purchase certificates of deposit will execute a written depository and collateral contract in accordance with the provisions of this Investment Policy.

(M) Depository Collateral.

(1) Consistent with the requirements of the Texas Public Funds Collateral Act, Chapter 2257, Texas Government Code, ("Collateral Act"), NTTA requires full collateralization of all NTTA Funds on deposit with a depository bank.

(2) All time and demand deposits will be collateralized in order to anticipate market price changes to a minimum 102% of market value of principal and accrued interest, less the amount insured by the Federal Deposit Insurance Corporation. The depository shall be liable for the monitoring and maintaining of collateralization margins. Securities shall be held by an independent

	third-party with whom NTTA has a current custodial agreement approved by the Board and executed under the terms of FIRREA. Acceptable investment securities for collateral will include only obligations of the U.S., its agencies and instrumentalities, including agency letters of credit and mortgage backed securities passing the bank test. (3) An Investment Officer will review and approve provisions relating to safekeeping of collateral, the substitution or release of investment securities, and the method of valuation of securities. Clearly marked evidences of ownership (safekeeping receipt/report) must be supplied immediately to NTTA and retained. Collateral will be priced at least monthly and reviewed by an Investment Officer on a monthly basis to assure that the market value of the pledged securities is adequate. (N) Repurchase and GIC Collateral. Each counterparty to a repurchase agreement or GIC is required to execute a master agreement. An executed copy of this master agreement must be on file before any transactions are initiated. Collateral will be in compliance with this Investment Policy and the Collateral Act and will be safekept by an independent custodian approved by NTTA. Acceptable investment securities for collateral will include only obligations of the U.S., its agencies and instrumentalities, including agency letters of credit and mortgage backed securities with a stated maturity not to exceed ten years.

NORTH TEXAS TOLLWAY AUTHORITY

BD 2.6A	**INVESTMENT STRATEGY** (Attachment A to the Investment Policy)	Policy number	BD 2.6
		Effective Date	3/16/2016
		Revision Number	5
		Revision Date	3/16/2016

I. PURPOSE	To set forth the investment strategy (the "*Investment Strategy*") of the North Texas Tollway Authority (the "*NTTA*") for each of the funds or group of funds under NTTA's control. This Investment Strategy is an integral part of the Investment Policy. Capitalized terms used in this Investment Strategy that are not otherwise defined herein shall have the meanings assigned to such terms in the Investment Policy.
II. RESPONSIBILITIES	All Investment Officers are responsible for complying with this Investment Strategy in conjunction with the Investment Policy.
III. INVESTMENT STRATEGY	(A) **General.** (1) In accordance with the PFIA, NTTA investment strategies establish maximum maturities and maximum dollar-weighted average maturity limits for each fund or group of funds constituting NTTA Funds and address the investment objectives for those funds (in order of importance): (a) suitability of the investment to the financial requirements of NTTA and the particular Fund Type; (b) preservation and safety of principal; (c) liquidity; (d) marketability of the investment if the need arises to liquidate the investment prior to maturity; (e) diversification of the investment portfolio; and (f) yield. (2) Effective investment strategy development coordinates the primary objectives of NTTA's Investment Policy and cash management procedures with investment security risk/return analysis to enhance interest earnings and reduce investment risk. NTTA will generally utilize a buy and hold strategy but will evaluate more active strategies, such as swaps or outright sales of securities, for incremental income when appropriate. The structure of the portfolio(s) will be primarily dependent upon the continuing cash flow requirements of the funds represented. The portfolio(s)

will reflect both the short and long term needs of a particular fund or group of funds. A limited liquidity buffer will be maintained to cover any unanticipated cash needs, where appropriate.

(3) With a more active position, maturity selections may be extended to gain incremental income or adjust portfolios to economic and market conditions. It is recognized that more active management may increase the overall weighted average maturity of the portfolios due to additional volatility.

(4) The Investment Officers shall monitor and evaluate the ongoing economic environment and incorporate market information from reliable sources as well as current and anticipated NTTA financial conditions when implementing these strategies. A report of NTTA's current strategy and anticipated changes shall be reported to the Board and Finance Committee as part of the quarterly investment reporting.

(5) NTTA expects, but is not required by law, to consolidate and commingle funds from similar Fund Types or all funds in an attempt to maximize investment earnings. Investment income, by fund, will be recognized and allocated monthly, based on respective fund balances for the period in accordance with generally accepted accounting principles.

(B) **Fund Type Identification.**

(1) Each Fund Type has varying cash flow requirements and liquidity needs. Therefore, specific investment strategies shall be implemented considering the Fund Type's unique requirements. NTTA Funds shall be analyzed and invested according to the following Fund Type:

(a) "*Type I Funds*": Type I Funds have varying cash needs in support of ongoing operations and required transfers. Type I Funds include the Operating and Maintenance Fund, Revenue Fund and Reserve Maintenance Fund under the Trust Agreement for the NTTA System revenue bonds and notes (the "*NTTA System Trust Agreement*").

(b) "*Type II Funds*": Type II Funds have cash needs dependent upon anticipated construction, acquisition and payment schedules. Type II Funds include the Construction Fund and the Capital Improvement Fund under the NTTA

	System Trust Agreement and NTTA's Feasibility Study Fund and DFW Transition Trust Fund. (c) "*Type III Funds*": Type III Funds have strict schedules for payment streams to match set liabilities. Type III Funds include the Reserve Accounts under the NTTA System Trust Agreement. (d) "*Type IV Funds*": Type IV Funds are structured to provide for debt service payments for the NTTA System revenue bonds and notes. Type IV Funds include the Bond Interest Accounts and the Redemption Accounts under the NTTA System Trust Agreement and the CIF Bond Payment Account in the Capital Improvement Fund created under the Bond Resolution for the NTTA System Subordinate Lien Revenue Bonds, Series 2010. (e) "*Type V Funds*": Type V Funds have various needs related to operations, anticipated construction, reserve requirements and debt service payments for the NTTA Special Projects System revenue bonds and notes. Type V Funds include the following funds under the Trust Agreement for the NTTA Special Projects System revenue bonds and notes (the "*Special Projects System Trust Agreement*"): (i) Construction Fund; (ii) Revenue Fund; (iii) First Tier Debt Service Fund; (iv) Second Tier Debt Service Fund; (v) Operating Fund; (vi) Major Maintenance Fund; (vii) Capital Expenditures Fund; (viii) Third Tier Debt Service Fund; (ix) Rate Stabilization Fund; (x) Major Maintenance Reserve Fund; (xi) Capital Expenditures Reserve Fund; and (xii) General Fund. (f) "*Liquidity Buffer Accounts*": Liquidity Buffer Accounts are established to assure NTTA liquidity for anticipated and unanticipated needs within one month. A liquidity buffer is needed in all funds except debt service funds which have well-defined and unalterable liabilities.

(C) **Investment Strategy By Type.**

(1) In order to minimize market risk or principal loss due to interest rate fluctuations, investment maturities and portfolio structures will be limited by the anticipated cash flow requirements of the various Fund Types. The use of Liquidity Buffer Accounts in a Fund Type is to provide for unanticipated liabilities. The general investment strategies are established by Fund Type as follows:

(a) Type I Funds.

(i) The short term (one to six month) needs of the Type I Funds will generally be addressed through a laddered portfolio and the longer term (six to twelve month) needs of the Type I Funds will be structured in a more loosely structured ladder. Core funds, not intended for use within one year, may be extended to two years.

(ii) Type I Funds are used to meet ongoing demands. The portfolio(s) will utilize high credit quality securities with no perceived credit risk to meet those demands and assure liquidity if needed. Securities with active and efficient secondary markets are necessary in the event of an unanticipated cash requirement. Historical market "spreads" between the bid and offer prices of a particular security type of less than a quarter of a percentage point shall define an efficient secondary market. Investment maturities shall be laddered based on the anticipated operating needs of NTTA. Market cycle risk will be reduced by diversifying the appropriate maturity structure. Because Type I Funds require the greatest short-term liquidity of any of the Fund Types, investment pools and money market mutual funds can provide daily liquidity.

(iii) Price volatility of the overall portfolio(s) will be minimized by requiring a maximum dollar weighted average maturity for the Type I Fund portfolio(s) of 180 days and restricting the maximum allowable maturity to two years.

(iv) The Reserve Maintenance Fund under the NTTA System Trust Agreement is designed to provide for maintenance

	demands which may or may not be scheduled. Due to uncertain liabilities, the dollar weighted average maturity of investments in this fund must be restricted to one year but investments may have maturities of up to three years. (b) <u>Type II Funds</u>. (i) Type II Funds are used to meet anticipated needs for construction and certain fixed liabilities, are primarily funded by bond proceeds and have reasonably predictable draw down schedules. (ii) Investment maturities will generally follow the anticipated cash flow requirements. Investment pools and money market mutual funds shall provide readily available funds generally equal to one month's anticipated cash flow needs. The portfolio(s) must be based upon the anticipated draw down schedules, but also must allow for changing schedules and cash needs and must minimize the effect of market fluctuations. As such, Type II Funds require a laddered portfolio based on known needs and a liquidity buffer to provide for unanticipated needs. (iii) Securities with active and efficient secondary markets and of high credit quality with no perceived default risk are to be used. (iv) A single flex repurchase agreement may be utilized and structured to satisfy expenditure requests. The flex repurchase agreement may be used effectively to manage against falling interest rates and protect against negative arbitrage. (v) U.S. tax and arbitrage regulations require competitive market rates. The portfolio(s) will be structured in such a way as to avoid negative arbitrage on bond proceeds and will comply with all arbitrage provisions. For Type II Funds that have an arbitrage yield consideration, achieving a positive spread to the applicable arbitrage yield is the desired objective. If an arbitrage yield is not a consideration, then current market conditions

will determine the portfolio structure and strategy.

(vi) At no time shall the investment maturities of securities in a Type II Fund exceed the anticipated expenditure schedule. The maximum maturity limits shall reflect the most current expenditure plan for the proceeds.

(c) Type III Funds.

(i) Type III Funds have no anticipated expenditures. Type III Funds are created to provide debt service payment protection to the NTTA bondholders. The funds are either utilized for the final debt service payment on an issue, or "returned" to NTTA at the final debt service payment. Any investment described in the applicable Trust Agreement and authorized in the Investment Policy is suitable for Type III Funds. Trust Agreement constraints and credit enhancement provider restrictions create issue-specific considerations in addition to the Investment Policy. Managing Type III Fund's portfolio maturities so as not to exceed the call provisions of the bond issue will reduce the investment's market risk if NTTA's bonds are called and the reserve fund liquidated.

(ii) All investments shall be high credit quality securities with no perceived default risk. Annual mark-to-market requirements or specific maturity and average life limitations within the bond issues' Trust Agreement will be considered. Securities with less active and efficient secondary markets are acceptable for Type III Funds. Liquidity needs are minimal.

(iii) Attaining a competitive market yield for comparable security types and portfolio restrictions is the desired objective. The maximum maturity for the investments shall be five years or the final maturity of the bond issue, whichever is shorter. The dollar weighted average maturity will be restricted to the projected expenditures over time.

(d) Type IV Funds.

(i) Type IV funds are structured to provide for debt service payments for NTTA bonds and notes. The expenditures are strictly scheduled and most occur in six month intervals. The portfolio(s) will utilize high credit quality securities with no perceived credit risk to meet those demands and assure liquidity if needed.

(ii) The maximum maturity for the investments in these portfolios will be one year and every known debt service date shall be fully funded before extensions are made. The maximum dollar weighted average maturity will be six months to fulfill these obligations.

(e) Type V Funds.

(i) The strategy for Type V Funds constituting the Construction Fund should be consistent with the strategy referenced for Type II Funds.

(ii) The strategy for Type V Funds constituting the General Fund, Operating Fund, Revenue Fund, Major Maintenance Fund and Capital Expenditures Fund should be consistent with the strategy referenced for Type I funds.

(iii) Type V Funds constituting the Major Maintenance Reserve Fund is intended for capacity expansions beginning in approximately 2018. Maturities shall be structured to meet liquidity needs from 2018 forward. Beginning in 2018, the short term (less than one year) needs will generally be addressed through a laddered portfolio and the longer term (one to five year) needs will be structured in a more loosely structured ladder. The maximum maturity for the investments shall be five years.

(iv) Type V Funds constituting the Capital Expenditures Reserve Fund is intended for capacity expansions beginning in approximately 2015. Beginning in 2015, the short term (less than one year) needs will generally be addressed through a laddered portfolio and the longer term (one to five year) needs will be structured in a more loosely structured ladder. The maximum maturity for

	the investments shall be five years. (v) The strategy for Type V Funds constituting the Rate Stabilization Fund and Debt Service Funds should be consistent with the strategy referenced for Type III funds. (f) Liquidity Buffer Accounts. A liquidity buffer, dependent in size upon current economic conditions and NTTA cash flow needs, shall be maintained in Type I Funds and Type II Funds to meet immediate cash needs of at least one month and provide for reasonable, unanticipated liabilities. The maximum maturity of these liquid, invested funds should be one day. These funds may be invested in money market mutual funds, local government pools, or in a depository overnight sweep.

ATTACHMENT B

NORTH TEXAS TOLLWAY AUTHORITY

QUALIFIED FINANCIAL INSTITUTIONS

Adopted: March 16, 2016

The qualified financial institutions listed below are authorized to engage in investment transactions with the North Texas Tollway Authority (Authority). Each of these firms, and the individual(s) covering the account, has been sent the Authority's current Investment Policy. In accordance with the Public Funds Investment Act (Texas Government Code 2256.005(k)), before any broker/dealer transacts business with the Authority, it will have had to certify in writing to a review of the Investment Policy and have certified that procedures are in place to assure compliance with that Policy.

The Authority's Investment Strategy establishes specific criteria for the counter-parties and requires that the list of qualified financial institutions be approved annually by the Board of Directors.

When any material changes are made to the Investment Policy, the new Policy will be sent out for re-certification by each of these firms.

FIRMS

Bank of America Merrill Lynch
Cantor Fitzgerald
Castleoak Securities
Coastal Securities
Duncan Williams, Inc.
FTN Financial
Ladenburg Thalmann
J.P. Morgan Chase
Loop Capital Markets
Morgan Stanley
Piper Jaffray
Raymond James
Rice Financial Products
Samuel A. Ramirez & Co.
UBS Financial Services

DEPOSITORY BANK

Wells Fargo Bank

OTHER BANKING INSTITUTIONS

Bank of America
BB&T Bank
Regions Bank

ATTACHMENT C

NORTH TEXAS TOLLWAY AUTHORITY

INVESTMENT POLICY CERTIFICATION

____________________________ ("The Financial Institution")

This acknowledgment and certification is executed on behalf of the Financial Institution named above, pursuant to the Investment Policy of the North Texas Tollway Authority (the "Authority") in connection with investment transactions between the Authority and the Financial Institution.

Representations by Financial Institution

The undersigned Qualified Representative of the Financial Institution hereby acknowledges and represents that:

1) The Representative is an authorized representative of the Financial Institution for purpose of this certification.

2) The Financial Instruction has received and reviewed the Investment Policy of the Authority and the Financial Institution has determined that it is qualified to provide investment transactions under the Investment Policy.

3) The Financial Institution has implemented reasonable procedures and controls in an effort to preclude investment transactions with the Authority that are not authorized under the Investment Policy, except to the extent that this authorization is dependent on an analysis of the makeup of the Authority's entire portfolio or requires an interpretation of the subjective investment standards.

____
Signature

____
Printed Name

____
Title

____
Date

____
Notary Public

____
Printed Name

____
Date

Seal

ATTACHMENT D

NORTH TEXAS TOLLWAY AUTHORITY

AUTHORIZED INSTITUTIONS FOR

PUBLIC FUND INVESTMENT ACT TRAINING

University of North Texas

Government Treasurers' of Texas (GTOT)

Government Finance Officers Association (GFOA)

Government Finance Officers Association of Texas (GFOAT)