



City of Austin

Founded by Congress, Republic of Texas, 1839
Municipal Building, Eighth at Colorado, P.O. BOX 1088, AUSTIN, TEXAS 78707 Telephone 512/400-2000

May 1, 1996

Ms. Sharlene N. Collins
North Austin Municipal Utility District
600 Congress Avenue #2600
Austin, Texas 78701-3288

Subject: City Water Service to North Austin Municipal Utility District No. 1

Dear Ms. Collins:

A copy of your letter dated April 19, 1996 to City Manager Jesus Garza, concerning a developing water pressure problem in the District has been forwarded to my office for a response.

In regard to the concern that the Martin Hill Reservoir would have its operating level lowered to 980 feet which in turn would lower water pressure to North Austin Municipal Utility District (MUD), that information is not correct. Reservoir and Pumping operations are under the direction of Mr. George Greene, P.E., Water and Wastewater Utility, and he has confirmed that no one from the District's Management Company or the District's Engineering firm had contacted him for information on the operating ranges for Martin Hill Reservoir.

In order to share information with the MUD Engineer on reservoir operations and for the Utility to learn what problems are occurring inside the MUD boundary, a meeting was held April 30, 1996. This meeting resulted in an agreement that both sides needed additional information, which will be obtained by the MUD Engineer on the water pressure problems that are occurring inside the District, when they started, what is the pressure drop, and how does that correspond to Utility Reservoir levels. The Utility will be sharing information with the District Engineer regarding a major engineering study of the Northwest "A" water pressure zone by the firm of Espey Huston and Associates. This study which is just beginning will assist the Utility in determining what are the needs of this water service area and how service levels can be maintained or improved as the area continues to grow. The District Engineer and the Utility staff will continue to work on identifying the specifics of the problem and solutions for both the District and City customers in this area.

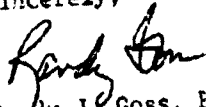
The results of this study which will provide the answers to long term water pressure and service issues will be shared with the North Austin MUD and the other districts in this water service zone as the study is completed. We will

Ms. Sharlene N. Collins

Ms. Sharlene N. Collins
May 1, 1996
Page 2

continue to work with your District Engineer in the meantime to ensure that the Utility is meeting the provisions of the Consent Agreement and providing a quality level of water service for North Austin MUD. If you have further questions, please call Mr. Mike Erdmann at 322-2876.

Sincerely,



Randy J. Goss, P.E., Director
Water and Wastewater Utility

RJG:me

xc: Jesus Garza, City Manager
Jim Smith, Assistant City Manager
Mike Erdmann, Wholesale Services Manager
John Tresnicky, Assistant City Attorney
George Greene, P.E., Pumping Division Manager

Maintaining Water Quality in Finished Water Storage Facilities

Prepared by:

Gregory J. Kirmeyer, Lynn Kirby, and Brian M. Murphy
Economic and Engineering Services, Inc., Bellevue, WA 98009

Paul F. Noran and Katherine D. Martel

Consumers Water Company, Portland, ME 04112

Theodore W. Lund

Extech, Inc., Chester, CT 06412

Jerry L. Anderson

CH2M Hill, Dayton, OH 45402

Richard Medhurst

General Utilities Projects, Ltd., London, UK WD2 2LG

Jointly sponsored by:

AWWA Research Foundation

6666 West Quincy Avenue

Denver, CO 80235-3098

United Kingdom Water Industry Research Limited

1 Queen Anne's Gate

London SW1H 9BT

Published by the

AWWA Research Foundation and

American Water Works Association

built on the highest available ground so as to minimize the required construction cost and height requirements.

CATEGORIZATION AND DEFINITION OF WATER QUALITY PROBLEMS

There are three main categories of problems that occur in storage facilities—chemical, microbiological and physical. Many problems fit into more than one category, but will only be discussed once in the primary category. Each potential problem, associated category, possible causative factor and potential methods for improvements are listed in Table 1.3 and discussed individually in this section.

Chemical Problems

There are several problems associated with finished water storage facilities that are caused by or are the result of a chemical reaction. These include but are not limited to loss of disinfectant residual, disinfection by-product formation, development of taste and odor, increase in pH, corrosion, build-up of iron and manganese, occurrence of hydrogen sulfide, and leachate from internal coatings. The first two discussed, loss of disinfectant residual and disinfection by-product formation, are perhaps the most common chemical problems, and loss of disinfectant residual can lead to microbiological problems discussed later.

Loss of Disinfectant Residual

The loss of disinfectant residual is a chemical process resulting in the decrease of the disinfectant, generally either free chlorine or total chlorine. It is a function of time and rate of chlorine decay. The rate of decay can be affected by microbiological contamination, temperature, nitrification, exposure to ultraviolet light (sun), and amount and type of chlorine-demanding compounds present, such as organics and inorganics. Since the volume of water in a storage facility is normally large compared to the amount of exposed surface area of the container, the effect of the walls and floor on chlorine decay are normally not significant. Thus, chlorine decay in storage facilities can normally be attributed to bulk water decay rather

**An AWWA Method For Maintaining Water Quality
In Oversized Water Storage Tanks, An Available Alternative**

Maintaining Water Quality in Finished Water Storage Facilities

Prepared by:

Gregory J. Kirmeyer, Lynn Kirby, and Brian M. Murphy
Economic and Engineering Services, Inc., Bellevue, WA 98009
Paul F. Noran and Katherine D. Martel
Consumers Water Company, Portland, ME 04112
Theodore W. Lund
Extech, Inc., Chester, CT 06412
Jerry L. Anderson
CH2M Hill, Dayton, OH 45402
Richard Medhurst
General Utilities Projects, Ltd., London, UK WD2 2LG

Jointly sponsored by:

AWWA Research Foundation
6666 West Quincy Avenue
Denver, CO 80235-3098

United Kingdom Water Industry Research Limited
1 Queen Anne's Gate
London SW1H 9BT

Published by the
AWWA Research Foundation and
American Water Works Association

built on the highest available ground so as to minimize the required construction cost and height requirements.

CATEGORIZATION AND DEFINITION OF WATER QUALITY PROBLEMS

There are three main categories of problems that occur in storage facilities—chemical, microbiological and physical. Many problems fit into more than one category, but will only be discussed once in the primary category. Each potential problem, associated category, possible causative factor and potential methods for improvements are listed in Table 1.3 and discussed individually in this section.

Chemical Problems

There are several problems associated with finished water storage facilities that are caused by or are the result of a chemical reaction. These include but are not limited to loss of disinfectant residual, disinfection by-product formation, development of taste and odor, increase in pH, corrosion, build-up of iron and manganese, occurrence of hydrogen sulfide, and leachate from internal coatings. The first two discussed, loss of disinfectant residual and disinfection by-product formation, are perhaps the most common chemical problems, and loss of disinfectant residual can lead to microbiological problems discussed later.

Loss of Disinfectant Residual

The loss of disinfectant residual is a chemical process resulting in the decrease of the disinfectant, generally either free chlorine or total chlorine. It is a function of time and rate of chlorine decay. The rate of decay can be affected by microbiological contamination, temperature, nitrification, exposure to ultraviolet light (sun), and amount and type of chlorine-demanding compounds present, such as organics and inorganics. Since the volume of water in a storage facility is normally large compared to the amount of exposed surface area of the container, the effect of the walls and floor on chlorine decay are normally not significant. Thus, chlorine decay in storage facilities can normally be attributed to bulk water decay rather

Table 1.3
Possible causative factors and potential methods for improvement of water quality in finished water storage facilities

[illegible]

Monitoring

Monitoring the water quality entering, exiting, and existing throughout the storage facility can be used to verify the effectiveness of the recirculation system for mixing. The monitoring locations must vary with both the horizontal and vertical planes. Frequent monitoring may be necessary immediately after start-up of the system to verify effectiveness. Once it is confirmed that the system is working correctly (diagnostic monitoring), a periodic, more limited monitoring program can be implemented (routine monitoring). Long-term monitoring may only be needed on the inlet and outlet pipes. The most appropriate parameters to be monitored are chlorine residual and temperature. If a more rigorous study is desired, then a conservative tracer such as fluoride should be considered.

Duration and Time Period

A recirculation system does not necessarily require continuous operation to achieve mixing goals. Operating the recirculation system by timer, with specified on and off periods, will likely be appropriate and would use less energy than continuous operation. Seattle Public Utilities currently operates a 32 MG reservoir's recirculation system on a 1 hour on/1 hour off cycle. A second recirculation system owned by Seattle Public Utilities on a 1 MG standpipe is set to operate only at night, when demand is low and flow rates are less than during the daytime. A monitoring program can be used to establish optimum duration and on-off cycles.

Rechlorination With Recirculation

If the recirculation system has an associated rechlorination system, operation of the recirculation system can coincide with chlorine injection. To ensure adequate mixing of the chlorine throughout the storage facility, the recirculation system may need to continue circulating water for a period of time after chlorine injection has stopped. Rechlorination is discussed in more detail in the following section.

SECONDARY DISINFECTION

Free chlorine is the most common secondary disinfectant. It can be added at the reservoir inlet, or outlet or at the recirculation system. Chlorine addition at the outlet is normally preferred over the inlet unless the residual is nearly depleted when entering the facility. Chlorine addition is sometimes followed by dechlorination to limit the chlorine taste and the formation of disinfection by-products.

Continuous Rechlorination

Proper use of a chlorine residual analyzer to control the rechlorination system is essential. The sample line supplying the water for the analyzer should be as short as possible, with a flow rate fast enough to minimize the time delay between the sample point and the analyzer. A diverter can be used to discharge to waste excess water not needed for the analyzer's operation. The analyzer should be regularly calibrated according to the manufacturer's instructions. The sample point should be located to avoid back mixing of unchlorinated with chlorinated water.

Conventional rechlorination stations, whether controlled by on-off, flow pacing, or chlorine residual pacing, may create a chlorine residual of unpredictable levels. Due to the dynamic nature of flow and chlorine demand in most water distribution systems, these methods of rechlorination can lead to periodic over- and underfeeding. Kim and Strand (1996) discuss an effective control method for rechlorination using oxidation reduction potential (ORP) measurement and control. ORP measures changes in chlorine demand and the oxidant profile in the distribution system. Chlorine feed can be modulated to maintain a specific ORP level. A redox probe measures the ORP level and reports it to a controller, which in turn modulates the chlorine feed.

Operation of the rechlorination system must also consider the impacts on additional formation of disinfection by-products. As discussed in Chapter 1, contact time, chlorine dose, and chlorine residual all impact DBP formation. Rechlorination increases the chlorine residual, thereby increasing the potential to form additional DBPs. A bench or pilot scale study can be conducted to simulate the effects of rechlorination on DBP formation and should be considered by utilities with moderate to high DBP levels and plans to install a rechlorination system.

A utility practicing chloramination for disinfection must carefully evaluate and monitor any rechlorination process. The mixing of free chlorine with chloramines can result in the loss of free chlorine residual if not conducted properly. If done correctly, chloramine levels can be increased with the addition of chlorine, depending on the level of residual ammonia present. If ammonia concentrations are insufficient, ammonia addition prior to chlorine addition may be required.

A rechlorination system requires careful operation. For an automated system, safety features are needed to limit the maximum disinfectant residual allowed. An automatic shut-off and alarm when a high residual is reached can be used to prevent exceeding the proposed maximum residual disinfectant levels (MRDLs) for chlorine or chloramines of 4.0 mg/L, the level set by the proposed D/DBP Rule.

Batch Chlorination

Batch chlorination can be used in finished water storage facilities to restore the chlorine residual, to disinfect an existing biological population, or to destroy a taste and odor condition. This can be accomplished by one of two methods: 1) injection at the inlet pipe or 2) addition into the storage facility contents through the hatches or recirculation system. The form of chlorine used can be either a portable gas chlorinator, sodium hypochlorite solution, or calcium hypochlorite in tabular or granular form. Regardless of the chemical used, safety must be a top priority in the handling and feeding of chlorine products. The first step is to evaluate the water quality in the storage facility to determine the required amount of disinfectant. Caution should be exercised in chlorinating a water which has previously been chloraminated because breakpoint issues should be evaluated.

Injection of chlorine into the inlet pipe to replenish a lost chlorine residual is difficult if no facilities such as an injection vault and on-line chlorine residual analyzer exist or if there is little mixing. At a minimum, a tap to inject the chlorine and a location where samples can be collected are needed. Mixing the chlorine in the inlet pipeline ahead of the reservoir is also important. Better mixing and control are accomplished if bends or valves exist prior to the storage facility. For a common inlet/outlet line, chlorine should be injected as the storage facility is filling, although mixing the chlorine throughout the contents may be difficult. If there are

COPY**Lutes, Teresa**

From: Jennings, Bart
Sent: Monday, May 10, 2004 2:32 PM
To: Sharlene Collins (E-mail); David Malish (E-mail)
Cc: Lutes, Teresa; Cantu, Reynaldo; Burazer, Jane; Greene, George; Gardner, Gene; Brooks-Newton, Georgi; Vivona, John
Subject: North Austin MUD Issues

Sharlene/David,

I met with Teresa and Gene on Friday to discuss any previous work initiated on your suggested option of providing higher pressure water to the North Austin MUD for its internal pressure problems though additional multiple connections of the City's water system to the MUD's distribution system. It seems that past work was mostly conceptual and modeling of such an option has not been thoroughly explored. Gene requested the following information in order for him to properly analyze such an option:

1. A map showing the boundaries of the areas that you wish to address with the proposed solution. The boundaries of the low pressure areas should follow property lines.
2. The number of connections within the identified areas (I am assuming they are all 5/8" connections. If not, please let us know.)
3. Indicate the peak hour flow and fire flow figures for the MUD in these low pressure areas.
4. Indicate where you propose additional master meters be located.

As soon as we receive the information, Gene will work on this model and provide you the results of his findings.

In terms of your suggestion regarding the re-chlorination of the Martin Hill Reservoir, the suggestion has been reviewed by various divisions of the Austin Water Utility. The Austin Water Utility is not interested in pursuing this option to address pressure issues for several reasons:

1. **Public Perception:** Because of the size of the facilities needed to store chemicals on site and the general public's concern of the storage of chemical (which has been expressed in the past of the Utility's existing water treatment plants), we believe that the public and the media would become alarmed at such a proposal and would create public relation issues for an area that the City wishes to promote economic development.
2. **Change in Safety Procedures:** By storing these chemicals on-site, the Utility's safety procedures, anti-terrorism procedures, vulnerability assessments, and security measures at the site would be required to be changed. As you know, such issues are regulated by State and Federal agencies and have been scrutinized since 9/11. The change in security measures would require additional funding for improvements and increased operating expenses. Such a change would also increase the Utility's overall risk and liability related to mechanical failures or accidents that could possibly occur at the site.
3. **Sizing of Facilities:** Re-chlorination in a other distribution systems has not encompassed a reservoir of the type of magnitude that the City operates. Most utilities shy away from feeding gas chemicals in their distribution systems due to safety and public perception of using gas chemicals and use liquid chemicals instead. This means using aqueous ammonia and sodium hypochlorite and would require large storage volumes. The sizing of the facilities only exacerbates the concerns listed.
4. **Potential Water Quality Problems:** Because our water source is surface water, the introduction of additional chemicals at the reservoir will increase the possibility of disinfectant byproducts. Most of our industrial customers manufacturing systems are highly sensitive to such byproducts and several industrial customers obtain their water through the Martin Hill Reservoir.
5. **Operating Flexibility:** The Austin Water Utility wishes to retain the greatest operational flexibility in operating the Martin Hill Reservoir and does not wish to limit the range of the reservoir level. The turnover in the reservoir is an important issue in order to ensure that bacteria re-growth due to nitrification does not occur. By operating the reservoir within the range that it is currently being operated at, the nitrification potential is addressed. Operating the reservoir at a higher level in order to increase psi within the distribution system would increase the possibility of nitrification and subsequent bacteria re-growth.

RESPONSE TO REQUEST NO. 14

UTILITY CONSTRUCTION CONTRACT
BETWEEN
THE CITY OF AUSTIN, TEXAS AND
NORTH AUSTIN MUNICIPAL UTILITY DISTRICT NO. 1

This Contract is made and entered into on the date last herein written, by and between the CITY OF AUSTIN, TEXAS ("the City"), a Home Rule City located in Travis County, Texas, and the NORTH AUSTIN MUNICIPAL UTILITY DISTRICT NO. 1 ("the District"), a conservation and reclamation district created pursuant to Article XVI, Section 59, of the Texas Constitution and operating under the provisions of Chapter 54 of the Texas Water Code.

RECITALS

The City owns and operates a water supply system and a sanitary sewer collection and treatment system serving areas within and adjacent to its city limits and has determined to extend its water supply and sanitary sewer facilities into the service area north of its present city limits in order to provide water and sanitary sewer service within said area for the purpose of protecting the health and welfare of present and future residents of the area and of portions of the City in proximity thereto.

The District desires to obtain access to the City's water supply system in order to enable it to provide a dependable supply of potable water to the inhabitants of the District and to obtain access to the City's sanitary sewer system in order to provide for the transportation, treatment, and disposal of sewage from within the District. Pursuant to Chapter 54 of the Texas Water Code, the District is authorized to purchase, construct and acquire, inside or outside its boundaries, works, improvements, and facilities helpful or necessary to supply water for municipal uses, domestic uses, and commercial purposes and to collect, transport, and dispose of waste. The Board of Directors of the District has determined that it is in the best

interests of the District and its inhabitants to cooperate with the City in the acquisition and construction of certain extensions to the City's water supply and sanitary sewer facilities.

The City and the District are authorized to make and enter into this Contract in accordance with the laws of the State of Texas, including Article 1109j, Texas Revised Civil Statutes, and Chapter 54, Texas Water Code.

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS, that for same in consideration of the premises and the mutual obligations and benefits contained herein, the City and the District contract and agree as follows:

AGREEMENT

I. DEFINITIONS

The terms and expressions used in this Contract, unless the context clearly shows otherwise, shall have the following meanings:

1.01 "Project" shall mean and refer to those water main and sanitary sewer main extensions and improvements described in Exhibit "A" to this Contract. The exact alignment and configuration of such water main and sanitary sewer main extensions and the exact location and configuration of the other water and sanitary sewer improvements may vary depending upon the final engineering design which shall be reviewed by the Environmental Board of the City and which shall be approved by the consulting engineers for the District and the Directors or acting Directors of the City's Water and Wastewater and Public Works Departments. It is expressly acknowledged and agreed that, prior to the time engineering design for the Project has been finally determined, the City may, at its option, require the oversizing of any of the facilities comprising the Project, provided: (i) that the City bears the cost of such oversizing and any related engineering expenses; (ii) that the total cost

of the Project to the District is not increased as a result of the oversizing; and (iii) that the construction of the Project is not delayed as a result of such oversizing.

1.02 "Board" and/or "Board of Directors" shall mean and refer to the Board of Directors of the District.

1.03 "Bonds" shall mean and refer to the bonds to be issued by the District, in one or more series or issues, for the purpose of acquiring, by purchase and/or construction, the Projects.

1.04 "Bond Resolution" shall mean and refer to any resolution or trust indenture of the Board of Directors authorizing the issuance of the Bonds and providing for their security and payment, as amended from time to time as therein permitted.

II. OBLIGATIONS OF DISTRICT WITH RESPECT TO THE ACQUISITION OF THE PROJECT.

2.01 Subject to the limitations hereinafter set forth, the District agrees that it will proceed, as promptly as possible and to the best of its abilities, with the financing and acquisition and/or construction of the Project, all in the manner hereinafter described. The District agrees to promptly pursue the approvals necessary for the District to issue the Bonds and acquire the Project. Upon obtaining said approvals, the District agrees to proceed promptly to issue and sell the Bonds and, thereafter, to purchase and/or construct the Project. The District hereby covenants that it will make a diligent effort to design and to complete the Project as soon as practicable; provided, however, that the District shall not be liable for any damages which may be occasioned by delays not caused by negligence of the District. The District and the City shall agree on the "Consulting Engineers" for the Project, which shall be constructed in accordance with plans and specifications prepared by the Consulting Engineers and approved by the City.

It is further agreed that the Consulting Engineers may be changed, but only with the consent of both the District and the City.

The District may enter into such contracts as may be necessary to provide for the acquisition, by purchase and/or construction, of the Project. Said contracts shall be approved and executed as required by the laws and regulations applicable to municipal utility districts and shall be awarded by competitive bidding in accordance with applicable City policies and procedures. The City shall be given notice of and invited to attend all bid openings, including bid openings for Bonds.

III. DISTRICT'S OBLIGATION TO PROVIDE FINANCING FOR PROJECTS

3.01 In order to finance the costs of the Projects, the District agrees to issue and sell the Bonds, in one or more series or installments, in such amounts as may be necessary to pay the costs and expenses of acquiring and/or constructing the Project and the costs and expenses of issuing the Bonds including, without limitation, the cost of acquiring all rights-of-way, easements, and land therefor; the funding of all special funds created for the ²payment and security of the Bonds; reasonable financial and legal fees, as agreed to in writing by the City attorney and the Director of Finance of the City; printing and other expenses incurred in connection of the issuance, sale and delivery of the Bonds; and an amount sufficient to provide for the payment of interest on the Bonds for a period not to exceed two (2) years. The parties agree that all of the Bonds issued by the District pursuant to the provisions hereof shall be payable solely from the contractual payments identified and described in Article V of this Contract.

3.02 Prior to the passage by the Board of Directors of the District of any resolution authorizing the issuance of the Bonds, a draft of such resolution in substantially final form

and content shall be delivered to the City Manager of the City at least thirty (30) days before the proposed date of sale of such Bonds and approved by the City Council of the City. Such draft shall set forth the principal amount and the maturities of the Bonds to be issued, the special funds created for the payment and security of the Bonds, including provisions relating to the creation and establishment of a special escrow fund for the deposit of the proceeds of the sale of the Bonds; and the procedures to be followed for the disbursement or withdrawal of funds deposited in such accounts. The necessity and amount of capitalized interest on the Bonds shall, after the first issue of Bonds, be reviewed and determined by the District and the Director of Finance of the City.

IV. OWNERSHIP AND OPERATION OF PROJECT

4.01 It is understood and agreed that the Project, upon final completion of the purchase and/or construction thereof, shall be dedicated to the City and, upon acceptance thereof by the City, all right, title and interest of the District in and to the Project shall vest in the City and the City shall thereafter be responsible for the maintenance and operation of the Project, at its sole expense.

V. PAYMENTS BY THE CITY

5.01 For and in consideration of the District's acquiring the Project and conveying the same to the City, the City agrees to pay to the District, in the manner hereinafter set forth, a sum equal to the total of the principal, interest, paying agents' fees, and other charges and expenses which may accrue in connection with the payment and discharge of the Bonds. It is further agreed that the City's obligation to make the payments herein specified shall terminate at such time as: (a) all of the Bonds have been paid in full and are no longer outstanding or (b) the City has irrevocably deposited with the paying agent or trustee, as the case may be, in trust: (1) monies sufficient

to fully pay the principal of, redemption premium, if any, on and interest on the Bonds to the respective due date or dates by reason of maturity, redemption or otherwise; and/or (2) government obligations, certified by an independent public accounting firm of national reputation, which shall mature as to principal and interest in such amounts and at such times as will insure the availability, without reinvestment, of sufficient funds to pay the principal of; redemption premium, if any, on and interest on all outstanding Bonds to their respective due date or dates by reason of maturity, redemption or otherwise. "Government obligations" as used herein shall mean direct obligations of the United States of America, including obligations upon which principal and interest are unconditionally guaranteed by the United States of America, and United States Treasury obligations such as its State and Local Government Series, which may be in book-entry form. It is further understood and agreed that the District's only source of funds to pay the principal of and interest on the Bonds, and to pay expenses relating to the Bonds, shall be from the payments to be made by the City to the paying agent for the District pursuant to this Contract.

5.02 The City agrees to make the following payments to or on behalf of the District for so long as any of the Bonds issued in connection with the Project are outstanding:

- (a) Such amounts, payable semi-annually on or before the last business day prior to the due date of each payment on the District's Bonds, as may be necessary to pay the principal and/or interest coming due on the District's Bonds on the next succeeding payment date;
- (b) Such amounts, payable upon receipt of a statement therefor, as may be necessary to pay, or to reimburse the District for, the fees and charges of the paying agent for paying or (redeeming the Bonds and/or interest coupons appertaining thereto coming due on such date;
- (c) Such amounts, payable upon receipt of a statement therefor, as may be necessary to pay, or to reimburse the District for: (1) the actual cost of any special accounting audits required by

the City; (2) any extraordinary or unexpected expenses or costs reasonably and necessarily incurred by the District in connection with the Bonds and the Projects, such as expenses of litigation, if any; and (3) costs of special studies and special professional services, if and when required by any governmental directive or regulation, or as may be agreed to by the City and the District; provided, however, that the City shall not be obligated to pay District expenses of litigation if the City is an opposing party in such litigation;

- (d) Such amounts as may be necessary to make all payments into any special fund or reserve fund required to be established and/or maintained by the provisions of any Bond Resolution, as defined in Paragraph 5.05 hereof; and
- (e) Such amounts as may be necessary to pay any deficiency in any fund or account required to be accumulated and/or maintained by the provisions of any Bond Resolution, as defined in Paragraph 5.05 hereof.

5.03 This Contract, and all payments required to be made by the City hereunder, shall constitute a Separate Lien Obligation within the meaning of and as such term is defined in Ordinance Number 820303-A, a copy of which ordinance is attached hereto as Exhibit "B" and incorporated herein by this reference. The capitalized terms set forth in this Section 5.03 and in Section 5.04 of this Article shall have the same meanings assigned to such terms by said Ordinance. The City hereby covenants and agrees that, subject only to the prior lien on and pledge of the Net Revenues of the City's Waterworks and Sewer System to the payment and security of the Priority Bonds, including the establishment and maintenance of the special funds created for the payment and security of the Priority Bonds, the Net Revenues of the Waterworks and Sewer System, with the exception of those in excess of the amounts required for the payments to be made hereunder and required for the payment and security of the Bonds, are hereby irrevocably pledged, equally and ratably, to the payment and security of the Bonds and to the payments required to be made by the City hereunder pursuant to Section 5.02 of this Article V. It is further acknowledged and

agreed that the lien on and pledge of the Net Revenues of the Waterworks and Sewer System securing the payments required to be made by the City under and pursuant to Section 5.02 of this Article V shall be in all respects on a parity and of equal dignity with the lien and pledge of the Net Revenues of the Waterworks and Sewer System securing the payment of the "City of Austin, Texas, Water, Sewer and Electric Refunding Revenue Bonds, Series 1982" and additional obligations issued on a parity therewith (which obligations the City expressly reserves the right to issue, in accordance with the terms and conditions prescribed therefor in said Ordinance Number 820303-A), as well as other Separate Lien Obligations which the City expressly reserves the right to issue and to be payable from and equally secured by a lien on and pledge of such Net Revenues. It is expressly agreed by the parties hereto that the lien and pledge securing the payments to be made hereunder shall be applicable only to the Net Revenues of the Waterworks and Sewer System, and that the Net Revenues of the Electric Light and Power System shall not be deemed to have been pledged or encumbered by any lien to secure the payment of any City obligations under this Contract in any manner. The City agrees to make provision, in each annual City Budget, for the payment of all amounts required to be paid by the City under and pursuant to this Contract.

5.04 The City hereby covenants and agrees to establish and maintain rates and charges for water and wastewater services adequate to annually produce Net Revenues of the Waterworks and Sewer System equal at least to: (a) the sum of all amounts deposited from the Water and Sewer System Fund (1) in any special funds or accounts created for the payment and security of the Priority Bonds and (2) in the Interest and Redemption Fund and Reserve Fund (created and established by Ordinance Number 820303-A) for the payment of principal of and interest on the Series 1982 and Additional Parity Bonds, and to establish

and maintain the Required Reserve as provided in said Ordinance or any other ordinance relating to obligations for which the Reserve Fund was created and established to pay; plus (b) an amount equal to 1.25 times the combined annual payments to be made during a Fiscal Year on all Separate Lien Obligations of the Waterworks and Sewer System for purposes of paying or representing the payment of, principal of and interest on all indebtedness incurred by reason of, resulting from or issued pursuant to such Separate Lien Obligations. In addition, the City hereby covenants and agrees to establish and maintain rates and charges for facilities and services afforded by the Electric Light and Power System and the Waterworks and Sewer System adequate to provide gross revenues in each fiscal year from each System sufficient:

- (a) To pay the respective Maintenance and Operating Expenses thereof;
- ((b) To provide such amounts as may be required to establish, maintain or restore, as the case may be, a required balance in any reserve or contingency fund created for the payment and security of Separate Lien Obligations;
- (c) To produce combined Net Revenues of the System sufficient to pay the amounts required to be deposited in any reserve or contingency fund created for the payment and security of the Priority Bonds, the Series 1982 and Additional Parity Bonds, and any other obligations or evidences of indebtedness issued or incurred that are payable only from and secured solely by a lien on and pledge of the combined Net Revenues of the Systems; and
- (d) To produce combined Net Revenues of the Systems (after payment of the amounts required to be paid by paragraphs (b) and (c), above) equal to at least the sum of (1) 1.25 times the annual principal and interest requirements (or other similar payments) for the then-outstanding Priority Bonds and the Separate Lien Obligations and (2) 1.10 times the total annual principal and interest requirements (or other similar payments) for the then-outstanding Bonds and all other indebtedness (except Priority Bonds and Separate Lien Obligations) payable only from and secured solely by lien on and pledge of the Net Revenues of either or both of the Systems.

5.05 The terms and specifications of the Bonds to be issued by the District pursuant to this Contract shall be set

forth in a bond resolution or resolutions adopted by the Board of Directors (the "Bond Resolution", whether one or more). Approval and execution of this Contract by the proper officers of the City, as authorized by a resolution or ordinance of the City Council of the City shall signify not only the acceptance and final approval of this Contract, but also an acknowledgment that the covenants of such Bond Resolution constitute contractual arrangements between the District and the purchasers of the Bonds. The City agrees faithfully to perform all of its obligations under this Contract in such manner as will permit the District to fully perform all of its obligations under the Bond Resolution. The City further agrees that the District, the purchasers of the Bonds and all others concerned in any manner with the issuance of the Bonds and the security of this Contract in support thereof may rely upon a certified copy of the resolution or ordinance of the City Council approving and authorizing the execution of this Contract as conclusive evidence of the City's approval and acceptance hereof and of its responsibilities and obligations hereunder.

5.06 All payments made by the City pursuant to Section 5.02(a) of this Contract shall be deposited with the depository institution designated as the paying agent for the Bonds, which paying agent shall be approved by the City; provided, however, that such approval shall not be unreasonably withheld. The funds so deposited shall be held and disbursed by the paying agent for the benefit of the holders of the Bonds from time to time in accordance with the terms and provisions of such Bonds.

VI. DISTRICT'S PRO RATA COSTS OF PROJECT.

6.01 The City agrees that, upon completion of the Project, adequate water distribution, wastewater collection, and treatment capacity shall be reserved to serve all land within the District and to meet the City's obligations to supply treated water to the District and to collect wastewater

therefrom. For and in consideration of the City reserving adequate distribution capacity on behalf of the District, the District hereby agrees to pay to the City its pro rata share of the principal and/or interest requirements and paying agent fees due on the Bonds issued to finance the Project, as indicated on Exhibit "C", attached hereto and incorporated herein by reference for all purposes.

6.02 The District and the City agree that the pro rata share of the costs of the Project to be borne by the District shall be payable in semi-annual installments on or before five (5) business days prior to the due date of each principal and/or interest payment on the Bonds. The District's obligation to make principal payments on the Bonds shall not commence until the fifth anniversary date of the issuance of such Bonds. Each such semi-annual installment shall be in an amount equal to the percentages hereinabove stipulated as applied to the total principal and/or interest requirements and paying agent fees due on the Bonds on the principal and/or interest date next following the date a semi-annual installment payment is to be made by the District to the City. An example of the manner in which the semi-annual installments to be made by the District to the City are to be calculated is attached hereto as Exhibit "D" and made a part hereof for all purposes.

6.03 The District hereby covenants and agrees that, after payment of all maintenance and operating expenses of the District's water distribution and sewer collection works, plants and facilities (hereinafter called the "System Facilities"), and subject only to any prior lien on and pledge of the income and revenues derived from the operation and ownership of the System Facilities to the payment and security of bonds (other than the Bonds) issued by the District, the revenues and income derived from the operation and ownership of the System Facilities shall be and are hereby irrevocably pledged to the

payments to be made to the City under and pursuant to Section 6.02 above. In this connection and so long as such semi-annual installment payments remain due and owing to the City, the District covenants and agrees to fix and maintain such rates and charges for water and sewer services afforded by the System Facilities as shall be fully sufficient to provide income and revenues at all times adequate to make the contract payments representing the District's pro rata share of the costs of the Project to the City. In addition, the payments to the City under and pursuant to Section 6.02 hereof shall be payable from and secured by an ad valorem tax, imposed by the District, unlimited as to rate or amount, which the District agrees to levy, assess and collect, upon all taxable property within the District at the same time as other District taxes are levied, assessed and collected. All of the foregoing provisions for the payments required under and pursuant to the foregoing Section 6.02 by the District to the City are made pursuant to the authority conferred by Sections 54.218 and 54.219 of the Texas Water Code, and an election duly held within in the District on the _____ day of _____, 198____. The District agrees that the resolution of its Board of Directors approving this Contract and authorizing the execution hereof on behalf of District shall make specific provision for the levy, assessment and collection of the aforementioned taxes during each year and at such rate (full allowance being made for delinquencies and costs of collection) as may be necessary to promptly make the payments herein pledged to City after consideration of all funds on hand or to be on hand from other sources, including those derived from the System Facilities as above set forth. The District hereby pledges the employment of these provisions for taxation as the means of making all payments to the City required under this Contract in each and every year when, for any reason, it shall appear that other available sources will

not produce funds entirely adequate for such purpose in the succeeding fiscal year.

6.04 The City covenants and agrees to enforce any and all existing contractual obligations with other entities and individuals in order to bring about cost participation in the Project on the part of these entities or individuals.

6.05 It is understood and agreed that the City shall have the right to establish and charge a subsequent user fee to all City water or sewer customers connecting to the facilities comprising the Project. In consideration of the District paying a share of the costs of the Project, neither the District nor any customers within the District shall be obligated to pay such subsequent user fee so long as the District is not annexed to the City, it being understood that the District's share of the costs of the Project is to be in lieu of of any such subsequent user fees to be assessed and collected by the City for the Project against other customers of the City's Waterworks and Sewer System. The District shall not have any rights to any such subsequent user fees collected by the City or any interest thereon.

VII. CONSTRUCTION AND INSURANCE

7.01 The Environmental Board of the City shall have the right to review the initial plans for the alignment and construction of the Project, and shall be invited to make on-site inspections of the Project during the alignment and construction stages.

7.02 During such time as the District or its contractors engage in construction work in relation to the Project, the District agrees to require all contractors performing such work to provide adequate insurance in relation to the Project and the work being performed as is usually carried by contractors constructing like properties and also to require all contractors to carry worker's compensation insurance. Upon completion of

construction of the Project and the dedication thereto to the City under the terms hereof, the City agrees to carry insurance on the Projects of a kind and in an amount which is customarily carried by municipal corporations in relation to the ownership and operations of utility properties.

VIII. CONDITIONS PRECEDENT

The obligation of the District to acquire and/or construct all or any part of the Project shall be conditioned upon the following:

- (a) Approval by the Texas Department of Water Resources, the Texas Department of Health, and any and all other local, state, or federal agencies having jurisdiction;
- (b) Sale of the Bonds in an amount sufficient to pay the costs of the acquisition and the expenses of issuing the Bonds; and
- (c) The District's ability, or the ability of its contractors, using all reasonable diligence, to obtain necessary material, labor, and equipment.

IX. USE OF CITY'S PROPERTY

By these presents, the City authorizes the District's use of any and all real property, streets, alleys, public ways and places, and general utility or water easements of the City for the acquisition and/or construction of the Project, so long as such use by the District does not interfere with any lawful use by the City. The City further agrees to provide right-of-way for the Project and to proceed immediately to acquire any necessary right-of-way by purchase, contract, or condemnation. The City's costs of acquiring such right-of-way shall be considered costs of the Project which shall be reimbursed by the District out of the proceeds of the Bonds. Nothing herein shall be construed as limiting the powers of the District to acquire land, easements or right-of-way for any purpose allowed by law. Upon completion of the Project, all easements acquired by the District for the Project shall be dedicated to the City.

X. FORCE MAJEURE

10.01 The term "Force Majeure", as employed herein, shall mean and refer to acts of God; strikes, lockouts, or other industrial disturbances; acts of public enemies; orders of any kind of the Government of the United States, the State of Texas or any civil or military authority; insurrections; riots; epidemics; landslides; lightning; earthquakes; fires; hurricanes; storms; floods; washouts; droughts; arrests; restraint of government and people; civil disturbances; explosions; breakage or accidents to machinery, pipelines, or canals; or other causes not reasonably within the control of the party claiming such inability.

10.02 If, by reason of Force Majeure, any party hereto shall be rendered wholly or partially unable to carry out its obligations under this Contract, then such party shall give written notice and the full particulars of such Force Majeure to the other party within a reasonable time after the occurrence thereof. The obligations of the party giving such notice, to the extent affected by such Force Majeure, shall be suspended during the continuance of the inability claimed, except as hereinafter provided, but for no longer period, and any such party shall endeavor to remove or overcome such inability with all reasonable dispatch.

10.03 It is understood and agreed that the settlement of strikes and lockouts shall be entirely within the discretion of the party having the difficulty, and that the above requirement that any Force Majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes and lockouts by acceding to the demands of the opposing party or parties when such settlement is unfavorable in the judgment of the party having the difficulty. It is specifically excepted and provided, however, that in no event shall any Force Majeure

relieve the City of its obligation to make the contract payments to the District as required by Article V of this Contract.

XI. REGULATORY BODIES

This Contract, and the acquisition of the Projects, shall be subject to all valid rules, regulations, and laws applicable thereto passed or promulgated by the United States of America, the State of Texas, or any governmental body or agency having lawful jurisdiction thereof.

XII. PARTIES IN INTEREST

This Contract shall be for the sole and exclusive benefit of the City, the District and the owners or holders of the Bonds from time to time, and shall not be construed to confer any benefit or right upon any other parties.

XIII. SEVERABILITY

The provisions of this Contract are severable, and if any word, phrase, clause, sentence, paragraph, section or other part of this Contract, or the application thereof to any person or circumstance, shall ever be held by any court of competent jurisdiction to be invalid or unconstitutional for any reason, the remainder of this Contract and the application of such word, phrase, clause, sentence, paragraph, section or other part of this Contract to other persons or circumstances shall not be affected thereby.

XIV. TERM OF CONTRACT

This Contract shall be in force and effect for so long as the Bonds, or any of them, remain outstanding and unpaid; provided, however, that in no event shall the term of this Contract exceed forty (40) years from the date of execution hereof by the District.

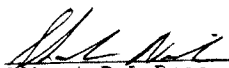
XV. EXECUTION OF CONTRACT

This Contract may be executed by the City prior to the creation of the District and shall be binding upon the City for a period of one (1) year following the approval of this Contract


or the Project by the Texas Water Commission, whichever occurs first, and execution of this Contract by the Board of Directors thereof, and shall thereafter be binding upon the City and District in accordance with its terms.

IN WITNESS WHEREOF, the District and the City, each acting under authority of their respective governing bodies, have caused multiple originals of this Contract to be duly executed, each of such to be of equal dignity, on the date or dates indicated below.

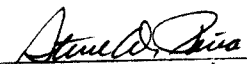
APPROVED AS TO FORM:

for 
Albert DeLaRosa
City Attorney

CITY OF AUSTIN, TEXAS

By 
City Manager
Date: MAY 20 1983

NORTH AUSTIN MUNICIPAL UTILITY
DISTRICT NO. 1

By 
President, Board of Directors
Date: February 21, 1984

2663R/SBL

EXHIBIT "A"

DISTRICT ITEMS

WATER

1. 36 inch Jollyville Transmission Main (along McNeil Road from Jollyville Reservoir to Parmer Lane)
2. 24 inch Parmer Lane Transmission Line (from existing 24 inch main in Milwood 6-11 to McNeil Road)
3. 36 inch Transmission Line (from 36 inch main in McNeil Road to Proposed Reservoir)
4. 24 inch FM 620 Transmission Main (from 36 inch in Parmer at Reservoir to FM 620)

WASTEWATER

Temporary Lift Station and Force Main System (from North Austin M.U.D. #1 to Bull Creek Lateral "A")

CONTRACT BOND ITEMS

1. Northwest "A" System Reservoir (2,700,000 Gallons Effective Storage)
2. 48 inch Spicewood Springs Transmission Main and Discharge Piping (from Spicewood Springs Pump Station to U.S. Highway 183)
3. Oversize Research Boulevard Transmission Main from 36 inch to 48 inch Diameter.

WASTEWATER

Permanent Wastewater System including Anderson Mill and Forest North (from North Austin M.U.D. #1 to Bull Creek Interceptor)

REAL9/43-1:SBL

AN ORDINANCE by the City Council of the City of Austin, Texas, authorizing the issuance of \$598,000,000 "CITY OF AUSTIN, TEXAS, WATER, SEWER AND ELECTRIC REFUNDING REVENUE BONDS, SERIES 1982"; prescribing the form of the bonds and the form of the interest coupons; pledging the net revenues of the City's Waterworks and Sewer System and Electric Light and Power System to the payment of the principal of and interest on said bonds; enacting provisions incident and related to the issuance, payment, security and delivery of said bonds; and declaring an emergency.

Passed March 3, 1982

Exhibit B to Utility Construction Contract - Page 1 of 27

TABLE OF CONTENTS

	<u>Page</u>
SECTION 1 Authorization—Principal Amount—Series Designation	B-2
SECTION 2 Date—Denomination—Numbers—Maturities—Interest Rates	B-2
SECTION 3 Interest	B-2
SECTION 4 Payment of Bonds—Paying Agent—Registrar	B-3
SECTION 5 Optional Redemption	B-3
SECTION 6 Mandatory Redemption	B-3
SECTION 7 Notice of Redemption	B-4
SECTION 8 Execution of Bonds	B-5
SECTION 9 Forms	B-5
SECTION 10 Definitions	B-10
SECTION 11 Pledge	B-12
SECTION 12 Rates and Charges	B-12
SECTION 13 Electric Light and Power System Fund	B-12
SECTION 14 Water and Sewer System Fund	B-13
SECTION 15 Reserve Fund	B-13
SECTION 16 Interest and Redemption Fund	B-14
SECTION 17 Payment of Bonds	B-15
SECTION 18 Investment of Certain Funds	B-15
SECTION 19 Issuance of Priority and Additional Parity Obligations	B-15
SECTION 20 Refunding Bonds	B-18
SECTION 21 Obligations of Inferior Lien and Pledge	B-18
SECTION 22 Maintenance and Operation—Insurance	B-18
SECTION 23 Sale or Lease of Properties	B-18
SECTION 24 Records and Accounts	B-19
SECTION 25 Deficiencies; Excess Net Revenues	B-19
SECTION 26 Further Covenants	B-20
SECTION 27 Final Deposit; Governmental Obligations	B-20
SECTION 28 Remedy in Event of Default	B-20
SECTION 29 Bonds are Special Obligations	B-21
SECTION 30 Bonds are Negotiable Instruments	B-21
SECTION 31 Ordinance to Constitute Contract	B-21
SECTION 32 Governmental Agencies	B-21
SECTION 33 No Competition	B-21
SECTION 34 No-Arbitrage	B-21
SECTION 35 Interest on Bonds to Remain Tax Exempt	B-21
SECTION 36 Amendment of Ordinance	B-21
SECTION 37 City Manager—Director of Finance to Have Charge of Records and Bonds	B-22
SECTION 38 Sale of Bonds	B-22
SECTION 39 Approval of Official Statement	B-23
SECTION 40 Proceeds of Sale	B-23
SECTION 41 Reasons for Refunding	B-23
SECTION 42 Cusip Numbers	B-23
SECTION 43 Emergency	B-24

ORDINANCE NO. 820303-A

AN ORDINANCE by the City Council of the City of Austin, Texas, authorizing the issuance of \$598,000,000 "CITY OF AUSTIN, TEXAS, WATER, SEWER AND ELECTRIC REFUNDING REVENUE BONDS, SERIES 1982", prescribing the form of the bonds and the form of the interest coupons; pledging the net revenues of the City's Waterworks and Sewer System and Electric Light and Power System to the payment of the principal of and interest on said bonds; enacting provisions incident and related to the issuance, payment, security and delivery of said bonds; and declaring an emergency.

WHEREAS, the City of Austin, Texas (the "City") has duly issued and delivered, and there are currently outstanding, the following series or issues of revenue bonds payable from and secured by a lien on and pledge of the net revenues of City's Electric Light and Power, Waterworks and Sewer System, to wit:

(1)	City of Austin, Texas, Utility System Revenue Bonds, Series 1, dated April 1, 1977, now outstanding in the aggregate principal amount of	\$ 80,000,000
(2)	City of Austin, Texas, Utility System Revenue Bonds, Series 2, dated October 1, 1977, now outstanding in the aggregate principal amount of	55,000,000
(3)	City of Austin, Texas, Utility System Revenue Bonds, Series 3, dated April 1, 1978, now outstanding in the aggregate principal amount of	78,000,000
(4)	City of Austin, Texas, Utility System Revenue Bonds, Series 4, dated October 1, 1978, now outstanding in the aggregate principal amount of	76,780,000
(5)	City of Austin, Texas, Utility System Revenue Bonds, Series 5, dated March 1, 1979, now outstanding in the aggregate principal amount of	79,000,000
(6)	City of Austin, Texas, Utility System Revenue Bonds, Series 6, dated September 1, 1979, now outstanding in the aggregate principal amount of	60,000,000
(7)	City of Austin, Texas, Utility System Revenue Bonds, Series 7, dated July 1, 1980, now outstanding in the aggregate principal amount of	45,000,000
(8)	City of Austin, Texas, Utility System Revenue Bonds, Series 8, dated January 1, 1981, now outstanding in the aggregate principal amount of	45,000,000
(9)	City of Austin, Texas, Utility System Revenue Bonds, Series 9, dated June 1, 1981, now outstanding in the aggregate principal amount of	27,000,000
(10)	City of Austin, Texas, Utility System Revenue Bonds, Series 10, dated October 1, 1981, now outstanding in the aggregate principal amount of	43,000,000
(11)	City of Austin, Texas, Electric, Waterworks and Sewer System Refunding Revenue Bonds, Series 1979, dated July 1, 1979, now outstanding in the aggregate principal amount of	303,665,000

AND WHEREAS, the City Council of the City has determined and hereby finds that refunding bonds should be issued in an amount sufficient, together with other available funds of the City, to refund all the above described bonds for the reasons set forth in Section 41 hereof, pay the costs of issuance of the refunding bonds and provide a debt service reserve for the refunding bonds; and

WHEREAS, it is hereby officially found and determined that it is necessary and desirable to use proceeds of the refunding bonds to fund a portion of the debt service reserve provided in Section 15 below, to effectively market the bonds and achieve the purpose of the refunding as hereinafter set forth; now, therefore,

B-1

Exhibit B to Utility Construction Contract - Page 3 of 27

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN, TEXAS:

SECTION 1: *Authorization—Principal Amount—Series Designation.* For the purpose of refunding all outstanding CITY OF AUSTIN, TEXAS, ELECTRIC, WATERWORKS AND SEWER SYSTEM REFUNDING REVENUE BONDS and CITY OF AUSTIN, TEXAS, UTILITY SYSTEM REVENUE BONDS, there shall be and there is hereby authorized to be issued a series of bonds, each payable to bearer, but subject to registration as to the payment of principal, in the principal amount of FIVE HUNDRED NINETY-EIGHT MILLION DOLLARS (\$598,000,000), to be designated "CITY OF AUSTIN, TEXAS, WATER, SEWER AND ELECTRIC REFUNDING REVENUE BONDS, SERIES 1982" (the "Series 1982 Bonds"), pursuant to authority conferred by and in conformity with the laws of the State of Texas, particularly Article 717k, as amended, V.A.T.C.S.

SECTION 2: *Date—Denomination—Numbers—Maturities—Interest Rates.* The Series 1982 Bonds shall be dated March 15, 1982; shall each be in the denomination of Five Thousand Dollars (\$5,000); shall consist of 119,600 bonds, numbered consecutively from One (1) upward and shall mature and bear interest at per annum rates in accordance with the following schedule:

Bond Numbers (All Inclusive)	Maturity Date	Aggregate Principal Amount	Interest Rate
1 to 435	November 15, 1982	\$ 2,175,000	8.25%
436 to 1,506	May 15, 1983	5,355,000	8.75%
1,507 to 2,366	November 15, 1983	4,300,000	8.75%
2,367 to 3,264	May 15, 1984	4,490,000	9.50%
3,265 to 4,254	November 15, 1984	4,950,000	9.50%
4,255 to 5,283	May 15, 1985	5,170,000	10.00%
5,289 to 6,398	November 15, 1985	5,550,000	10.00%
6,399 to 7,564	May 15, 1986	5,830,000	10.40%
7,565 to 8,653	November 15, 1986	5,445,000	10.40%
8,654 to 9,800	May 15, 1987	5,735,000	10.80%
9,801 to 11,310	November 15, 1987	7,550,000	10.80%
11,311 to 12,898	May 15, 1988	7,940,000	11.20%
12,899 to 14,574	November 15, 1988	8,380,000	11.20%
14,575 to 16,344	May 15, 1989	8,350,000	11.50%
16,345 to 18,002	November 15, 1989	8,290,000	11.50%
18,003 to 19,755	May 15, 1990	8,765,000	11.75%
19,756 to 21,499	November 15, 1990	8,720,000	11.75%
21,500 to 23,345	May 15, 1991	9,230,000	12.00%
23,346 to 25,250	November 15, 1991	9,525,000	12.00%
25,251 to 27,266	May 15, 1992	10,080,000	12.25%
27,267 to 29,386	November 15, 1992	10,600,000	12.25%
29,387 to 31,636	May 15, 1993	11,250,000	12.50%
31,637 to 33,862	November 15, 1993	11,130,000	12.50%
33,863 to 36,224	May 15, 1994	11,810,000	12.75%
36,225 to 38,592	November 15, 1994	11,840,000	12.75%
38,593 to 49,774	November 15, 1996	55,910,000	11.00%
49,775 to 55,938	November 15, 1997	30,820,000	13.50%
55,939 to 87,218	November 15, 2001	156,400,000	14.00%
87,219 to 94,973	November 15, 2002	38,775,000	11.00%
94,974 to 119,600	November 15, 2006	123,135,000	14.25%

SECTION 3: *Interest.* The Series 1982 Bonds shall bear interest from date until paid, or redeemed in accordance with the terms prescribed therefor, at the per annum rates shown above, such interest to be evidenced by interest coupons attached to each of said bonds and said interest shall be payable on November 15, 1982, and semiannually thereafter on May 15 and November 15 in each year.

B-2

Exhibit B to Utility Construction Contract - Page 4 of 27

SECTION 4: Payment of Bonds—Paying Agent—Registrar. Both principal of and interest on the Series 1982 Bonds shall be payable in lawful money of the United States of America, without exchange or collection charges to the owner or holder thereof, upon presentation and surrender of such bonds or proper coupons, at Morgan Guaranty Trust Company of New York, New York, New York (the "Paying Agent").

The Paying Agent is hereby designated and appointed the Registrar for the Series 1982 Bonds, and, in the performance of the duties of Registrar, shall maintain and keep Bond Registration Books for purposes of registering the Series 1982 Bonds as to the payment of principal and discharging the same from registration, all in accordance with the Bond Registration Provisions appearing on the Form of Bond set forth in Section 9 hereof and incorporated herein by reference as a part of this Ordinance for all purposes.

SECTION 5: Optional Redemption. (a) The City reserves the right to redeem the Series 1982 Bonds maturing on and after November 15, 2002, in whole at any time or in part on any interest payment date (and if within a maturity at random, by lot or other customary method selected by the Registrar), on or after May 15, 1997, at the price of par plus accrued interest to the date of redemption and without premium.

(b) The City also reserves the right to redeem the Series 1982 Bonds maturing on November 15, 1984 through November 15, 1994, in whole or in part (and if in part the particular Bonds to be redeemed shall be selected by the Registrar at random, by lot or other customary method), on May 15, 1984 or on any interest payment date thereafter, at the price of par plus accrued interest to the date of redemption and without premium, provided the principal amount of Bonds to be redeemed shall not exceed the amount of proceeds derived from the sale or other disposition of the City's participating interest in the South Texas Project and on hand in the special escrow account referred to in Section 23(b) hereof at the time of the call for redemption.

SECTION 6: Mandatory Redemption. The Series 1982 Bonds hereinafter described shall also be subject to mandatory redemption prior to maturity as follows:

(a) Series 1982 Bonds maturing on November 15, 1996, are subject to mandatory redemption prior to maturity and shall be redeemed, in part, on the dates and in the principal amounts set forth below:

<u>Date</u>	<u>Amount</u>
May 15, 1995	\$12,575,000
November 15, 1995	15,295,000
May 15, 1996	11,020,000

(b) Series 1982 Bonds maturing on November 15, 1997, are subject to mandatory redemption prior to maturity and shall be redeemed, in part, on the date and in the principal amount set forth below:

<u>Date</u>	<u>Amount</u>
May 15, 1997	\$12,100,000

(c) Series 1982 Bonds maturing on November 15, 2001, are subject to mandatory redemption prior to maturity and shall be redeemed, in part, on the dates and in the principal amounts set forth below:

<u>Date</u>	<u>Amount</u>
May 15, 1998	\$14,665,000
November 15, 1998	18,925,000
May 15, 1999	16,530,000
November 15, 1999	21,375,000
May 15, 2000	19,725,000
November 15, 2000	21,645,000
May 15, 2001	20,355,000

B-3

Exhibit B to Utility Construction Contract - Page 5 of 27

(d) Series 1982 Bonds maturing on November 15, 2002, are subject to mandatory redemption prior to maturity and shall be redeemed, in part, on the date and in the principal amount set forth below:

<u>Date</u>	<u>Amount</u>
May 15, 2002	\$20,630,000

(e) Series 1982 Bonds maturing on November 15, 2006, are subject to mandatory redemption prior to maturity and shall be redeemed, in part, on the dates and in the principal amounts set forth below:

<u>Date</u>	<u>Amount</u>
May 15, 2003	\$17,370,000
November 15, 2003	19,955,000
May 15, 2004	17,300,000
November 15, 2004	17,415,000
May 15, 2005	19,305,000
November 15, 2005	15,795,000
May 15, 2006	1,855,000

On or prior to each April 1 and October 1 in each of the years specified above that Series 1982 Bonds are to be mandatorily redeemed, the Registrar shall select at random, by lot or other customary method the serial numbers of the Series 1982 Bonds within the applicable maturity to be redeemed on the next following mandatory redemption date, and the Series 1982 Bonds thus selected shall be redeemed on the next following May 15 and November 15, as the case may be, from moneys set aside for that purpose in the Interest and Redemption Fund, at the price of par and accrued interest to the date of redemption, without premium. Any Series 1982 Bonds not selected for prior redemption shall be paid on the date of their stated maturity.

The principal amount of the Series 1982 Bonds required to be redeemed pursuant to the operation of such mandatory redemption provisions shall be reduced, at the option of the City, by the principal amount of any Series 1982 Bonds which, at least 30 days prior to the mandatory redemption date, (1) shall have been acquired by the City at a price not exceeding the principal amount of such Bonds plus accrued interest to the date of purchase thereof, and delivered to the Registrar for cancellation, (2) shall have been purchased and cancelled by said Registrar at the request of the City with moneys in the Interest and Redemption Fund, at a price not exceeding the principal amount of such Series 1982 Bonds plus accrued interest to the date of purchase thereof, or (3) have been redeemed pursuant to the optional redemption provisions set forth above in Section 5 hereof and not theretofore credited against a mandatory redemption requirement.

SECTION 7: Notice of Redemption. At least thirty (30) days prior to any date on which any of the Series 1982 Bonds are to be redeemed pursuant to the provisions of Sections 5 or 6 hereof, the City shall cause a written notice of redemption (specifying the serial numbers and amount of bonds to be redeemed) to be published at least once in a financial publication of general circulation in The City of New York, New York and in a newspaper of general circulation in the City of Austin, Texas. By the date fixed for any such redemption due provision shall be made with the Paying Agent for the payment of the principal amount of the Series 1982 Bonds which are to be so redeemed and accrued interest thereon to the date fixed for redemption. If such written notice of redemption is published and if due provision for such payment is made, all as provided above, the Series 1982 Bonds which are to be so redeemed thereby automatically shall be redeemed prior to their scheduled maturities, and they shall not bear interest after the date fixed for redemption, and they shall not be regarded as being outstanding except for the right of the holder to receive the redemption price from the Paying Agent out of the funds provided for such payment. A similar notice shall be mailed by the City, postage prepaid, not less than 30 days prior to the redemption date, (a) to the registered owner of each Series 1982 Bond to be redeemed at the address appearing on the Bond Registration Books maintained by the Registrar and (b) to the owner of each of the Series 1982 Bonds to be redeemed

which is payable to bearer, provided that each such owner previously shall have filed written instructions with the Registrar as to the name and address to which such notice should be mailed; but failure to mail or receive any such notice, or any defect therein or in the mailing thereof, shall not affect the validity of the proceedings for the redemption of such Series 1982 Bonds.

SECTION 8: *Execution of Bonds.* The seal of said City shall be impressed on each of said Series 1982 Bonds or, in the alternative, a facsimile of such seal shall be printed on the said Series 1982 Bonds. The Series 1982 Bonds and interest coupons appurtenant thereto may be executed by the imprinted facsimile signatures of the Mayor and City Clerk and execution in such manner shall have the same effect as if such Series 1982 Bonds and coupons had been signed by the Mayor and City Clerk in person by their manual signatures. Inasmuch as such Series 1982 Bonds are required to be registered by the Comptroller of Public Accounts of the State of Texas, only his signature (or that of a deputy designated in writing to act for the Comptroller) shall be required to be manually subscribed to such Series 1982 Bonds in connection with his registration certificate to appear thereon, as hereinafter provided; all in accordance with the provisions of Article 717J-1, V.A.T.C.S.

SECTION 9: *Forms.* The form of the Series 1982 Bonds, including the form of interest coupons to be attached thereto, the form of registration certificate of the Comptroller of Public Accounts of the State of Texas and the form for registration of ownership to be printed thereon, shall be substantially as follows, to wit:

(Form of Bond.)

NO. _____ UNITED STATES OF AMERICA \$5,000
STATE OF TEXAS
COUNTY OF TRAVIS
CITY OF AUSTIN, TEXAS,
WATER, SEWER AND ELECTRIC
REFUNDING REVENUE BOND
- \$ - SERIES 1982

The City of Austin, a municipal corporation in the County of Travis, State of Texas, FOR VALUE RECEIVED, hereby promises to pay to the bearer hereof, or, if this bond be registered as to principal as hereafter provided, to the registered owner hereof, on the FIFTEENTH DAY OF _____ (unless this Bond shall have been redeemed prior to maturity in accordance with the provisions of the ordinance hereinafter referred to) the principal sum of

FIVE THOUSAND DOLLARS

(\$5,000), and to pay interest thereon from the date hereof until paid at the rate of _____ per centum (_____ %) per annum, such interest being evidenced by interest coupons payable on November 15, 1982, and semiannually thereafter on May 15 and November 15 in each year while this Bond is outstanding.

BOTH PRINCIPAL of and interest on this Bond shall be payable in lawful money of the United States of America, without exchange or collection charges to the owner or holder, such principal and interest coupons appertaining hereto, being payable only upon presentation and surrender of this Bond or proper interest coupon, at Morgan Guaranty Trust Company of New York, New York, New York (the "Paying Agent").

If this Bond is registered as to principal (other than to bearer), such principal shall be paid to the registered owner shown on the Bond Registration Books of the City kept by the Paying Agent as "Registrar" for the City, upon presentation and surrender of this Bond to the Paying Agent.

THIS BOND is one of a series of bonds (the "Bonds"), dated March 15, 1982, numbered consecutively from One (1) upward, each in the denomination of \$5,000, aggregating in principal amount \$598,000,000, issued for the purpose of refunding all presently outstanding "City of Austin, Texas, Electric Waterworks

B-5

Exhibit B to Utility Construction Contract - Page 7 of 27

and Sewer System Refunding Revenue Bonds" and "City of Austin, Texas, Utility System Revenue Bonds" pursuant to and in conformity with the laws of the State of Texas, particularly Article "I" of the V.A.T.C.S., as amended, the Home Rule Charter of the City and an ordinance (the "Ordinance") duly passed by the City Council of the City and duly recorded in the Minutes of said Council.

THE BONDS are issued in coupon form without right of conversion and exchange into fully registered bonds. Provisions regarding the registration of this Bond as to principal and the conditions of transfer are set forth in the Bond Registration Provisions appearing on the back hereof.

THE BONDS maturing on the dates hereinafter identified are subject to mandatory redemption prior to maturity with funds from the "Interest and Redemption Fund", established in the Ordinance, and shall be redeemed in part prior to maturity at the price of par and accrued interest thereon to the date of redemption, and without premium, on the dates and in the amounts set forth in the Ordinance. Bonds maturing November 15, 1996 are subject to mandatory redemption on May 15, 1995 and semiannually thereafter on each November 15, and May 15 through May 15, 1996. Bonds maturing November 15, 1997 are subject to mandatory redemption on May 15, 1997. Bonds maturing November 15, 2001 are subject to mandatory redemption on May 15, 1998 and semiannually thereafter on each November 15, and May 15 through May 15, 2001. Bonds maturing on November 15, 2002 are subject to mandatory redemption on May 15, 2002. Bonds maturing November 15, 2006 are subject to mandatory redemption on May 15, 2003, and semiannually thereafter on each November 15 and May 15 through May 15, 2006. The particular Bonds to be redeemed on each such date shall be chosen at random, by lot or other customary method by the Registrar; provided, however, that the principal amount of the Bonds required to be redeemed pursuant to the operation of such mandatory redemption provisions shall be reduced, at the option of the City, by the principal amount of any Bonds which, at least 50 days prior to a mandatory redemption date, (1) shall have been acquired by the City at a price not exceeding the principal amount of such Bonds plus accrued interest to the date of purchase thereof, and delivered to the Registrar for cancellation, (2) shall have been purchased and cancelled by said Registrar at the request of the City with moneys in the Interest and Redemption Fund at a price not exceeding the principal amount of such Bonds plus accrued interest to the date of purchase thereof, or (3) shall have been redeemed pursuant to the optional redemption provisions set forth below and not theretofore credited against a mandatory redemption requirement.

On and after May 15, 1997, the Bonds maturing on and after November 15, 2002 may be redeemed prior to their scheduled maturities, at the option of said City, with funds derived from any source, in whole or in part on any interest payment date, for the principal amount thereof and accrued interest thereon to the date fixed for redemption, and without premium. If less than all the Bonds of a maturity are to be so redeemed, the particular Bonds of a maturity, to be redeemed shall be selected at random, by lot or other customary method by the Registrar.

Furthermore, the Bonds maturing on November 15, 1984 through November 15, 1994, may be redeemed at the option of the City, in whole or in part (and, if in part the particular Bonds to be redeemed shall be selected by the Registrar at random, by lot or other customary method), on May 15, 1984 or on any interest payment date thereafter at the price of par and accrued interest to the date of redemption and without premium, provided the principal amount of Bonds to be redeemed shall not exceed the amount of proceeds derived from the sale of the City's participating interest in the "South Texas Project" and on hand at the time of the call for redemption.

At Least thirty days prior to the date fixed for any redemption the City shall cause a written notice of such redemption (specifying the serial numbers and amount of Bonds to be redeemed), to be published at least once in a financial publication of general circulation in The City of New York, New York, and in a newspaper of general circulation in the City of Austin, Texas. By the date fixed for any such redemption due provision shall be made with the Paying Agent for the payment of the principal amount of the Bonds which are to be so redeemed and accrued interest thereon to the date fixed for redemption. If such written notice of redemption is published and if due provision for such payment is made, all as provided above, the Bonds which are to be so redeemed thereby automatically shall be redeemed prior to their scheduled maturities, and they shall not bear interest after the date fixed for redemption, and they shall not be

regarded as being outstanding except for the right of the bearer to receive the redemption price from the Paying Agent out of the funds provided for such payment. A similar notice shall be mailed by the City, postage prepaid, not less than 30 days prior to the redemption date, (a) to the registered owner of each of the Bonds to be redeemed addressed to such owner at the address appearing on the Bond Registration Books maintained by the Registrar, and (b) to the owner of each of the Bonds to be redeemed, which is payable to bearer, provided that each such owner previously shall have filed written instructions with the Registrar as to the name and address to which such notice should be mailed; but failure to mail or receive any such notice, or any defect therein or in the mailing thereof, shall not affect the validity of the proceedings for the redemption of such Bonds.

THE BONDS are special obligations of the City payable solely from and equally secured by a lien on and pledge of the "Net Revenues" (as such term is defined in the Ordinance) of the City's Electric Light and Power System and the "Net Revenues" of the Waterworks and Sewer System; such lien on and pledge of the "Net Revenues" of both Systems being joint and several and, also, being junior and subordinate to the payment and security of "Priority Bonds" (which the City has reserved the right to issue subject to the terms and conditions stated in the Ordinance). For a more complete description and identification of the revenues pledged to the payment of the Bonds, and other obligations of the City secured by and payable from the same source or sources as the Bonds, reference is hereby made to the Ordinance.

THE CITY has reserved the right, subject to the restrictions stated in the Ordinance, to issue and incur additional parity revenue obligations payable from and equally secured by a lien on and pledge of the Net Revenues of the Electric Light and Power System and the Net Revenues of the Waterworks and Sewer System, in the same manner and to the same extent as the Bonds. In addition, the City has expressly reserved the right to incur obligations payable from and secured by a lien on and pledge of the Net Revenues of either the Electric Light and Power System or the Waterworks and Sewer System, but not both Systems, which lien on and pledge of the respective Net-Revenues will be of equal dignity with the lien on and pledge of said respective Net Revenues in favor of the Bonds. The City has also reserved the right to issue Priority Bonds to be secured by a first lien on and pledge of the Net Revenues of Electric Light and Power System and the Net Revenues of the Waterworks and Sewer System under the terms and conditions contained in the Ordinance.

THE HOLDER HEREOF shall never have the right to demand payment of this obligation out of any funds raised or to be raised by taxation.

IT IS HEREBY CERTIFIED AND RECITED that the issuance of this Bond and the Series of which it is a part is duly authorized by law; that all acts, conditions and things required to exist and to be done precedent to and in the issuance of the Bonds to render the same lawful and valid have been properly done, have happened and have been performed in regular and due time, form and manner as required by the Constitution and laws of the State of Texas and the Ordinance hereinabove mentioned; that the Bonds do not exceed any constitutional or statutory limitation; and that provision has been made for the payment of the principal of and interest on this Bond and the Series of which it is a part by irrevocably pledging the Net Revenues of the Electric Light and Power System and the Waterworks and Sewer System of the City of Austin, Texas, as hereinabove recited.

Except where defined herein, capitalized terms have the meanings assigned to them in the Ordinance.

IN TESTIMONY WHEREOF, the City Council of the City of Austin, Texas, in accordance with the provisions of Article VII-1, V.A.T.C.S., has caused the seal of said City to be impressed or a facsimile thereof to be printed hereon, and this bond and its appurtenant coupons to be executed with the imprinted facsimile signatures of the Mayor and City Clerk of said City.

Mayor, City of Austin, Texas

COUNTERSIGNED:

City Clerk, City of Austin, Texas

B-7
Exhibit B to Utility Construction Contract - Page 9 of 27

(Form of Interest Coupon)

No. _____

\$ _____

ON _____ 15, _____

The City of Austin, a municipal corporation in the County of Travis, State of Texas, hereby promises to pay to bearer the amount shown on this interest coupon, in lawful money of the United States of America, without exchange or collection charges to the bearer, unless due provision has been made for the redemption prior to maturity of the Bond to which this interest coupon appertains, upon presentation and surrender of this interest coupon, at

MORGAN GUARANTY TRUST COMPANY OF NEW YORK, NEW YORK, NEW YORK

said amount being interest due on that day on the Bond, bearing the number hereinafter designated, of that issue of CITY OF AUSTIN, TEXAS, WATER, SEWER AND ELECTRIC REFUNDING REVENUE BONDS, SERIES 1982, dated March 15, 1982. The holder hereof shall never have the right to demand payment of this obligation out of any funds raised or to be raised by taxation, or from any source whatsoever other than those sources described in the Bond to which this coupon appertains. Bond No. _____

City Clerk

Mayor

(Form of Registration Certificate)

COMPTROLLER'S REGISTRATION CERTIFICATE REGISTER NO. _____

I hereby certify that this Bond has been examined, certified as to validity and approved by the Attorney General of the State of Texas, and duly registered by the Comptroller of Public Accounts of the State of Texas.

Witness my signature and seal this _____

Comptroller of Public Accounts
of the State of Texas

(Form of Bond Registration Provisions)

BOND REGISTRATION PROVISIONS

This Bond may be registered as to principal alone on the Bond Registration Books of the City kept by Morgan Guaranty Trust Company of New York, New York, New York, as Registrar, upon presentation hereof to the Registrar, which shall make notation of such registration in the registration blank below, and this Bond thereafter may be transferred only upon a duly executed assignment of the registered owner or his duly authorized representative in such form as shall be satisfactory to the Registrar, such transfer to be made on such Bond Registration Books and endorsed thereon by the Registrar. Any such transfer of this Bond may be to bearer and thereby transferability by delivery shall be restored, but this Bond shall again be subject to successive registrations and transfers as before. The principal of this Bond, if registered, unless registered to bearer, shall be payable only to or upon the order of the registered owner or his legal representative upon presentation and surrender of this Bond to the Registrar by such registered owner (or to the bearer of this Bond if it is registered to bearer). The bearer of any coupon may be deemed and regarded by the Registrar and the City as the absolute owner for all purposes, including payment and discharge of the liability upon such coupon to the extent of such payment, and neither the Registrar nor the

B-8

Exhibit B to Utility Construction Contract - Page 10 of 27

City shall be affected by any notice to the contrary. Notwithstanding the registration of this Bond as to principal, the interest coupons appertaining hereto shall remain payable to bearer and shall continue to be transferable by delivery. For every transfer the Registrar may make a charge to the owner of this Bond sufficient to reimburse it for any tax, fee, or governmental charge required to be paid with respect thereto.

Date of
Registration

Name of
Registered Owner

Signature
of Bond Registrar

SECTION 10: Definitions. For all purposes of this ordinance and in particular for clarity with respect to the issuance of the Series 1982 Bonds herein authorized and the pledge and appropriation of revenues for the payment of the Bonds, the following definitions are provided:

Additional Parity Bonds—shall mean revenue bonds, Contractual Obligations or other evidences of indebtedness which the City reserves the right to issue or enter into, as the case may be, in the future under the terms and conditions provided in Section 19 this Ordinance and which are equally and ratably secured with the Series 1982 Bonds by a lien on and pledge of the Net Revenues of the Systems.

Bonds—shall mean collectively the Series 1982 Bonds and Additional Parity Bonds.

Capital Additions—shall mean those properties and facilities which by their nature, and as incorporated into the Systems, either or both, will add additional capacity, or are to replace existing capacity, of the Systems, either or both, or substantially increase revenue-producing capabilities.

Capital Improvements—shall mean those property improvements or any combination of property improvements which will constitute enlargements, extensions, betterments or repairs to the then existing facilities or properties of the Systems, either or both.

City—shall mean the City of Austin, Texas, located in the County of Travis.

Contractual Obligations—shall mean those obligations (i) issued or incurred by the City payable from the Net Revenues of the Electric Light and Power System and the Net Revenues of the Waterworks and Sewer System and (ii) incurred pursuant to express charter or statutory authority heretofore or hereafter adopted or enacted and (iii) which by the terms of the ordinance authorizing their issuance or the incurring of the obligation provide for payments to be made by the City for the retirement or payment thereof to be equally and ratably secured with the Priority Bonds or the Bonds by a lien on and pledge of the Net Revenues of the Systems.

Electric Light and Power System—shall mean all facilities and plants currently owned, operated and maintained by the City, wholly or partially in participation with others, for the generation, transmission, supply and distribution of electrical energy and power, together with all future extensions, improvements, replacements and additions thereto, and all replacements thereof; provided that, notwithstanding the foregoing, and to the extent now or hereafter authorized or permitted by law, the term "Electric Light and Power System" shall not mean to include facilities of any kind (including any electric power generating and transmission facilities) which are declared not to be a part of the Electric Light and Power System and which are acquired or constructed by the City, or in participation with others, with the proceeds from the issuance of "Special Facilities Bonds", which are hereby defined as being special revenue obligations of the City which are not Priority Bonds, Bonds or Separate Lien Obligations but which are payable from and secured by other liens on and pledges of any revenues, sources or payments not pledged to the payment of the Priority Bonds, the Bonds or Separate Lien Obligations including, but not limited to, special contract revenues or payments received from any other legal entity in connection with such facilities.

Fiscal Year—shall mean the twelve month period used by the City in connection with the operation of the Systems which may be any twelve consecutive month period established by the City.

Government Obligations—shall mean direct obligations of the United States of America, including obligations the principal of and interest on which are unconditionally guaranteed by the United States of America, which may be United States Treasury obligations such as its State and Local Government Series, and which may be in book-entry form.

Gross Revenues—shall mean, with respect to the Electric Light and Power System or the Waterworks and Sewer System, all income, receipts and revenues of every nature derived or received from the operation and ownership (excluding refundable meter deposits, restricted gifts and grants and proceeds derived from the sale or other disposition of all or part of the City's participating interest in the South Texas Project and revenues, sources or payment from facilities acquired or constructed

with "Special Facilities Bonds") of the respective system, including earnings and income derived from the investment or deposit of moneys in any special funds or accounts created and established by the City for the payment and security of the Priority Bonds or the Bonds or Separate Lien Obligations.

Independent Engineer—shall mean an individual, firm or corporation engaged in the engineering profession, selected by the City Council, of recognized good standing and having specific experience in respect of business and properties of a character similar to those of the Systems, which individual, firm or corporation has no substantial interest, direct or indirect, in the City and in the case of an individual, is not a member of the City Council, officer or employee of the City, and in the case of a firm or corporation, does not have a partner, director, officer or employee who is a member of the City Council, officer or employee of the City.

Maintenance and Operating Expenses—shall mean, with respect to the Electric Light and Power System or the Waterworks and Sewer System, all current expenses of operating and maintaining the respective system, including all salaries, labor, materials, repairs and extensions necessary to render efficient service; provided, however, that only such repairs and extensions, as in the judgment of the City Council, reasonably and fairly exercised, are necessary to maintain the operations and render adequate service to the City and the inhabitants thereof, or such as might be necessary to meet some physical accident or condition which would otherwise impair the Priority Bonds or the Bonds shall be deducted in determining "Net Revenues". Depreciation shall never be considered as an expense of Maintenance and Operation. Maintenance and Operating Expenses shall include payments under contracts for the purchase of power and energy, water supply or other materials, goods or services for the Systems to the extent authorized by law and the provisions of such contract.

Net Earnings—shall have the meaning assigned to such term by Section 19 hereof.

Net Revenues—shall mean, with respect to the Electric Light and Power System or the Waterworks and Sewer System, Gross Revenues of the respective system after deducting the system's Maintenance and Operating Expenses.

Places of Payment—shall have the meaning assigned to such term by Section 4 hereof.

Priority Bonds—shall mean all revenue bonds, Contractual Obligations or other evidences of indebtedness which may hereafter be issued and incurred in accordance with the provisions of Section 19 hereof, and secured by a first lien on and pledge of the Net Revenues of the (i) Electric Light and Power System and (ii) Waterworks and Sewer System.

Refunded Bonds—shall mean the City's presently outstanding and unpaid Electric, Waterworks and Sewer System Refunding Revenue Bonds, Series 1979 and Utility System Revenue Bonds, Series I through 10, more particularly described in the preamble of this Ordinance.

Required Reserve—shall mean the amount required to be accumulated and maintained in the Reserve Fund under the provisions of Section 15.

Separate Lien Obligations—shall mean those obligations (i) issued or incurred by the City payable solely from the Net Revenues of either the Electric Light and Power System or the Net Revenues of the Waterworks and Sewer System, but not both (ii) incurred pursuant to express charter or statutory authority heretofore or hereafter adopted or enacted and (iii) which by the terms of the ordinance authorizing their issuance or the incurring of the obligation provide for payments to be made by the City for the retirement or payment thereof to be secured solely by a lien on and pledge of the Net Revenues of the Electric Light and Power System or the Net Revenues of the Waterworks and Sewer System, but not both, of equal dignity with the lien on and pledge of said Net Revenues securing the payment of the Bonds.

Series 1982 Bonds—shall mean the "City of Austin, Texas, Water, Sewer and Electric Refunding Revenue Bonds, Series 1982" authorized by this Ordinance.

South Texas Project—shall mean the City's ownership interest in two nuclear steam electric generating units and related land and facilities, as more particularly defined in the South Texas Project Participation Agreement effective as of December 1, 1973, as amended.

B-11

Exhibit B to Utility Construction Contract - Page 13 of 27

Systems—shall mean collectively the Electric Light and Power System and the Waterworks and Sewer System.

Waterworks and Sewer System—means all properties, facilities and plants currently owned, operated and maintained by the City for the supply, treatment and transmission of treated potable water and the collection, treatment and disposal of water-carried wastes, together with all future extensions, improvements, replacements and additions thereto; provided, however, that notwithstanding the foregoing, and to the extent now or hereafter authorized or permitted by law, the term "Waterworks and Sewer System" shall not mean to include facilities of any kind which are declared not to be a part of the Waterworks and Sewer System and which are acquired or constructed by or on behalf of the City with the proceeds from the issuance of "Special Facilities Bonds", which are hereby defined as being special revenue obligations of the City which are not Priority Bonds, Bonds or Separate Lien Obligations but which are payable from and secured by other liens on and pledges of any revenues, sources or payments, not pledged to the payment of Priority Bonds, the Bonds or Separate Lien Obligation including, but not limited to, special contract revenues or payments received from any other legal entity in connection with such facilities.

SECTION 11: *Pledge*. That the City hereby covenants and agrees that, subject only to any prior lien on and pledge of the Net Revenues of both the Electric Light and Power System and Waterworks and Sewer System to the payment and security of the Priority Bonds, including the establishment and maintenance of the special funds hereafter created and established for the payment and security of the Priority Bonds, the Net Revenues of both Systems, with the exception of those in excess of the amounts required for the payment and security of the Bonds, are hereby irrevocably pledged, jointly and severally, to the payment and security of the Bonds, including the establishment and maintenance of the special funds created, and established by Sections 15 and 16 of this Ordinance, all as hereinafter provided; provided, however, the City has retained the right to issue or incur Separate Lien Obligations.

SECTION 12: *Rates and Charges*. That, for the benefit of the holders of the Bonds and in addition to all provisions and covenants in the laws of the State of Texas and in this Ordinance, the City hereby expressly stipulates and agrees, while any of the Priority Bonds or the Bonds are outstanding and unpaid, to establish and maintain rates and charges for facilities and services afforded by the Electric Light and Power System and the Waterworks and Sewer System to provide Gross Revenues in each Fiscal Year from each System sufficient

- (1) To pay the respective Maintenance and Operating Expenses thereof.
- (2) To provide amounts required to establish, maintain or restore, as the case may be, a required balance in any reserve or contingency fund created for the payment and security of Separate Lien Obligations.
- (3) To produce combined Net Revenues of the Systems sufficient to pay the amounts required to be deposited in any reserve or contingency fund created for the payment and security of the Priority Bonds, the Bonds, and other obligations or evidences of indebtedness issued or incurred that are payable only from and secured solely by a lien on and pledge of the combined Net Revenues of the Systems, and
- (4) To produce combined Net Revenues of the Systems (after satisfaction of the amounts required to be paid in 2 and 3 above) equal to at least the sum of (i) 1.25 times the annual principal and interest requirements (or other similar payments) for the then outstanding Priority Bonds and Separate Lien Obligations and (ii) 1.10 times the total annual principal and interest requirements (or other similar payments) for the then outstanding Bonds and all other indebtedness (except Priority Bonds and Separate Lien Obligations) payable only from and secured solely by lien on and pledge of the Net Revenues of the Systems, either or both.

SECTION 13: *Electric Light and Power System Fund*. The City hereby covenants and agrees that Gross Revenues of the Electric Light and Power System shall be, as collected, deposited into a separate account hereby created and established with a depository bank of the City and to be known as the "Electric Light and Power System Fund" (herein called the "Electric Fund") and to keep such revenues of the Electric

B-12

Exhibit B to Utility Construction Contract - Page 14 of 27

Light and Power System separate and apart from all other funds of the City. All revenues deposited in the Electric Fund shall be pledged and appropriated to the extent required for the following uses and in the order of precedence shown:

FIRST: To the payment of all necessary and reasonable Maintenance and Operating Expenses of the Electric Light and Power System, as defined herein or required by statute to be a first charge on and claim against the Gross Revenues thereof.

SECOND: To the payment of the amounts required to be deposited in any special funds or accounts created for the payment and security of the Priority Bonds.

THIRD: To the payment of the amounts required to be deposited in the Reserve Fund created by this Ordinance to establish and maintain the Required Reserve in accordance with the provisions of this Ordinance or any other ordinance relating to obligations for which the Reserve Fund was created and established to pay.

FOURTH: To the payment of the amounts required to be deposited in the Interest and Redemption Fund created and established by this Ordinance for the payment of principal of and interest on the Bonds as the same becomes due and payable and the payment of Separate Lien Obligations secured by a lien on and pledge of the Net Revenues of the Electric Light and Power System.

Any Net Revenues remaining in the Electric Fund after satisfying the foregoing payments, or making adequate and sufficient provision for the payment thereof, may be appropriated and used for any other City purpose now or hereafter permitted by law.

SECTION 14: *Water and Sewer System Fund.* The City hereby covenants and agrees that Gross Revenues of the Waterworks and Sewer System shall be, as collected, deposited into a separate account hereby created and established with a depository bank of the City and to be known as the "Water and Sewer System Fund" (herein called the "Water and Sewer Fund") and to keep such revenues of the Waterworks and Sewer System separate and apart from all other funds of the City. All revenues deposited in the Water and Sewer Fund shall be pledged and appropriated to the extent required for the following uses and in the order of precedence shown:

FIRST: To the payment of all necessary and reasonable Maintenance and Operating Expenses of the Waterworks and Sewer System, as defined herein or required by statute to be a first charge on and claim against the Gross Revenues thereof.

SECOND: To the payment of the amounts required to be deposited in any special funds or accounts created for the payment and security of the Priority Bonds.

THIRD: To the payment of the amounts required to be deposited in the Reserve Fund created by this Ordinance to establish and maintain the Required Reserve in accordance with the provisions of this Ordinance or any other ordinance relating to obligations for which the Reserve Fund was created and established to pay.

FOURTH: To the payment of the amounts required to be deposited in the Interest and Redemption Fund created and established by this Ordinance for the payment of principal of and interest on the Bonds as the same becomes due and payable and the payment of Separate Lien Obligations secured by a lien on and pledge of the Net Revenues of the Waterworks and Sewer System.

Any Net Revenues remaining in the Water and Sewer Fund after satisfying the foregoing payments, or making adequate and sufficient provision for the payment thereof, may be appropriated and used for any other City purpose now or hereafter permitted by law.

SECTION 15: *Reserve Fund.* For purposes of accumulating and maintaining funds as a reserve for the payment of the Priority Bonds and the Bonds, the City agrees and covenants to create a separate and special fund or account to be known as the "Combined Pledge Revenue Bond Common Reserve Fund"

B-13

Exhibit B to Utility Construction Contract - Page 15 of 27

the "Reserve Fund"), and all funds deposited therein (excluding earnings and income denied or received from deposits or investments which may be transferred to the Interest and Redemption Fund established in Section 16 hereof during such periods as there is on deposit in the Reserve Fund the Required Reserve) shall be used solely for the payment of the principal of and interest on the Priority Bonds and the Bonds on a pro rata basis, when (whether at maturity, upon mandatory redemption, prior to maturity or any interest payment date) and to the extent other funds available for such purposes are insufficient, and, in addition, may be used to retire the last of the Priority Bonds or Bonds outstanding.

Simultaneously with the delivery of the Series 1982 Bonds to the initial purchaser thereof, the City shall deposit in the Reserve Fund the sum of \$85,000,000, hereby determined to be the Required Reserve for the Series 1982 Bonds. As and when Additional Parity Bonds or Priority Bonds are delivered or incurred, the Required Reserve shall be increased, if required, to an amount equal to the greater of (i) \$85,000,000 or (ii) the average annual requirement (calculated on a calendar year basis) for the payment of principal of and interest (or other similar payments) on all Priority Bonds and Bonds then outstanding, as determined on the date the last series of Additional Parity Bonds or Priority Bonds are delivered or incurred, as the case may be. Any additional amount required shall be so accumulated by the deposit in the Reserve Fund of all or any part of said required additional amount in cash immediately after the delivery of the then proposed Priority Bonds or Additional Parity Bonds, or, at the option of the City, by the deposit of said required additional amount (or any balance of said required additional amount not deposited in cash as permitted above) in monthly installments, made on or before the last day of each month following the delivery of the then proposed Additional Parity Bonds or Priority Bonds, of not less than 1/60th of said required additional amount (or 1/60 of the balance of said required additional amount not deposited in cash as permitted above).

When and so long as the money and investments in the Reserve Fund total not less than the Required Reserve, no deposits need be made to the credit of the Reserve Fund; but when and if the Reserve Fund at any time contains less than the Required Reserve (other than as the result of the issuance of Additional Parity Bonds or Priority Bonds as provided in the preceding paragraph), the City covenants and agrees to cure the deficiency in the Required Reserve within twelve (12) months from the date the deficiency in funds occurred with available Net Revenues in the Electric Fund and the Water and Sewer Fund, and the City hereby covenants and agrees that, subject only to payments required for the payment of principal of and interest on the Priority Bonds and the establishment and maintenance of any special funds created for the payment and security thereof, all Net Revenues remaining in the Electric Fund and the Water and Sewer Fund shall be applied and appropriated and used to establish and maintain the Required Reserve and to cure any deficiency in such amount, as required by the terms of this Ordinance and any other ordinance pertaining to obligations the payment of which are secured by the Required Reserve.

Notwithstanding the foregoing provisions contained in this Section pertaining to an increase in the Required Reserve, in the event Priority Bonds are hereafter issued or incurred and the proceedings pertaining to the issuance or incurrence thereof provide for, or require, the creation and establishment, or reaffirm the creation and establishment, of a separate and special reserve or contingency fund for the benefit of such obligations, the amount to be accumulated and maintained in such separate and special reserve or contingency fund shall offset and be subtracted from the increase, if any, in the Required Reserve as hereinabove required.

During such time as the Reserve Fund contains the total Required Reserve, the City may, at its option, withdraw all surplus in the Reserve Fund in excess of the Required Reserve and deposit such surplus in the Interest and Redemption Fund. The City hereby designates its depository bank or banks as the custodian of the Reserve Fund.

SECTION 16: Interest and Redemption Fund. For purposes of providing funds to pay the principal of and interest on the Bonds as the same becomes due and payable (whether at maturity or upon mandatory redemption), the City agrees to create or maintain at a depository bank of the City a separate and special account or fund known as the "City of Austin Interest and Redemption Fund No. One" (the "Interest and Redemption Fund"). The City covenants that there shall be deposited into the Interest and Redemption Fund from the Net Revenues in the Electric Fund and the Water and Sewer Fund after the deduction of

payments required to be made to the Reserve Fund, if any, and the special funds or accounts created for the payment and security of the Priority Bonds, an amount equal to one hundred per centum (100%) of the amount required to fully pay the interest and principal, and mandatory redemption payments on the Bonds, falling due on or before the next maturity or mandatory redemption date for the Bonds, such payments to be made in equal monthly installments made on or before the 14th day of each month. If the Net Revenues in the Electric Fund and the Water and Sewer Fund in any month (after the deduction of payments required to be made to the Reserve Fund, if any, for the benefit and security of the Priority Bonds) are then insufficient to make the required payments into the Interest and Redemption Fund, then the amount of any deficiency in the payment shall be added to the amount otherwise required to be paid into the Interest and Redemption Fund in the next month.

SECTION 17: *Payment of Bonds.* On or before November 14, 1982, and semiannually on or before the 14th day of May and November thereafter while any of the Bonds are outstanding, the City shall make available to the paying agents therefor, in funds which will be immediately available on the next succeeding business day, out of the Interest and Redemption Fund and the Reserve Fund, if necessary, money sufficient to pay such interest on and such principal of the Bonds as will accrue or mature or come due by reason of redemption prior to maturity on each November 15 and May 15, respectively. The paying agents shall cancel or destroy all paid Bonds, and the coupons appertaining thereto, and furnish the City with an appropriate certificate of cancellation or destruction.

SECTION 18: *Investment of Certain Funds.* (a) Money in any Fund established pursuant to this Ordinance may, at the option of the City, be placed in time deposits or certificates of deposit secured by obligations of the type hereinafter described, or be invested, including investments held in book-entry form, in direct obligations of the United States of America, obligations guaranteed or insured by the United States of America, which, in the opinion of the Attorney General of the United States, are backed by its full faith and credit or represent its general obligations, or invested in indirect obligations of the United States of America, including, but not limited to, evidences of indebtedness issued, insured or guaranteed by such governmental agencies as the Federal Land Banks, Federal Intermediate Credit Banks, Banks for Cooperatives, Federal Home Loan Banks, Government National Mortgage Association, United States Postal Service, Farmers Home Administration, Federal Home Loan Mortgage Association, Small Business Administration, Federal Housing Association, or Participation Certificates in the Federal Assets Financing Trust; provided that all such deposits and investments shall be made in such a manner that the money required to be expended from any Fund will be available at the proper time or times. Such investments (except State and Local Government Series investments held in book entry form, which shall at all times be valued at cost) shall be valued in terms of current market value within 45 days of the close of each Fiscal Year. All interest and income derived from deposits and investments in the Interest and Redemption Fund immediately shall be credited to, and any losses debited to, the Interest and Redemption Fund. All interest and interest income derived from deposits in and investments of the Reserve Fund shall, subject to the limitations provided in Section 15 hereof, be credited to and deposited in the Interest and Redemption Fund. All such investments shall be sold promptly when necessary to prevent any default in connection with the Bonds and with respect to the Reserve Fund, the Priority Bonds.

(b) That money in all Funds created by this Ordinance, to the extent not invested, shall be secured in the manner prescribed by law for securing funds of the City.

SECTION 19: *Issuance of Priority and Additional Parity Obligations.* Subject to the provisions hereinafter appearing as to conditions precedent which must first be satisfied, the City reserves the right to issue, from time to time as needed, Priority Bonds and Additional Parity Bonds, either or both, for any lawful purpose. Such Priority Bonds or Additional Parity Bonds may be issued in such form and manner as now or hereinafter authorized by the laws of the State of Texas for the issuance of evidences of indebtedness or other instruments, and should new methods or financing techniques be developed that differ from those now available and in normal use, the City reserves the right to employ the same in its financing arrangements provided only that the same conditions precedent herein required for the authorization and issuance of the same are satisfied.

B-15

Exhibit B to Utility Construction Contract - Page 17 of 27

(a) *Conditions Precedent for Issuance of Priority Bonds and Additional Parity Bonds—General.*

(i) The Director of Finance of the City (or other officer of the City then having the primary responsibility for the financial affairs of the City) shall have executed a certificate stating (a) that the City is not then in default as to any covenant, obligation or agreement contained in any ordinance or other proceeding relating to any obligations of the City payable from and secured by a lien on and pledge of the Net Revenues of the Systems, either, or both and (ii) all payments into all special funds or accounts created and established for the payment and security of all outstanding obligations payable from and secured by a lien on and pledge of the Net Revenues of the Systems, either or both, have been made in full and that the amounts on deposit in such special funds or accounts are the amounts then required to be deposited therein.

(ii) The Priority Bonds and Additional Parity Bonds (except Contractual Obligations and evidences of indebtedness due within 12 months from the date of the issuance thereof) shall be scheduled to mature or be payable as to principal on November 15 or May 15 (or both) in each year the same are to be outstanding or during the term thereof.

(b) *Conditions Precedent for Issuance of Priority Bonds and Additional Parity Bonds—Capital Improvements.* The City covenants and agrees that neither Priority Bonds or Additional Parity Bonds will be issued for the purpose of financing Capital Improvements, unless and until the conditions precedent in subparagraph (a) above have been satisfied and, in addition thereto, the City has secured:

(i) for the issuance of Priority Bonds, a certificate or opinion of a Certified Public Accountant to the effect that, according to the books and records of the City, the Net Earnings for the preceding Fiscal Year or for 12 consecutive months out of the 15 months immediately preceding the month the ordinance authorizing the Priority Bonds is adopted are at least equal to the sum of (i) 1.10 times the average annual requirement for the payment of principal and interest (or other similar payments) for the Bonds outstanding and all other outstanding obligations (except Priority Bonds and Separate Lien Obligations) that are payable only from and secured solely by a lien on and pledge of the Net Revenues of the Systems, either or both; and (ii) 1.25 times the average annual requirement for the payment of principal and interest (or other similar payments) for all outstanding Priority Bonds and Separate Lien Obligations after giving effect to the Priority Bonds then proposed. In making a determination of the Net Earnings, the Accountant may take into consideration a change in the rates and charges for services and facilities afforded by the Systems, either or both, that became effective at least sixty (60) days prior to the last day of the period for which Net Earnings are determined and, for purposes of satisfying the above Net Earnings test, make a pro forma determination of the Net Earnings for the period of time covered by his certification or opinion based on such change in rates and charges being in effect for the entire period covered by the Accountant's certificate or opinion; or

(ii) for the issuance of Additional Parity Bonds, a certificate or opinion of a Certified Public Accountant to the effect that, according to the books and records of the City, the Net Earnings for the preceding Fiscal Year or for 12 consecutive months out of the 15 months immediately preceding the month the ordinance authorizing the Additional Parity Bonds is adopted are at least equal to the sum of (i) 1.10 times the average annual requirement for the payment of principal and interest (or other similar payments) for the Bonds outstanding and all other outstanding obligations (except Priority Bonds and Separate Lien Obligations) that are payable only from and secured solely by a lien on and pledge of the Net Revenues of the Systems, either or both, including the Additional Parity Bonds then proposed and (ii) 1.25 times the average annual requirement for the payment of principal and interest (or other similar payments) for all outstanding Priority Bonds and Separate Lien Obligations. In making a determination of the Net Earnings, the Accountant may take into consideration a change in the rates and charges for services and facilities afforded by the Systems, either or both, that became effective at least sixty (60) days prior to the last day of the period for which Net Earnings are determined and, for purposes of satisfying the above Net Earnings test, make a pro forma determination of the Net Earnings of the Systems for the period of time covered by his certification or opinion based on such change in rates and charges being in effect for the entire period covered by the Accountant's certificate or opinion.

As used in this Section, the term "Net Earnings" shall mean the combined Gross Revenues of the Systems after deducting the combined Maintenance and Operating Expenses of the Systems, but not expenditures which, under standard accounting practice, should be charged to capital expenditures.

c) *Conditions Precedent for Issuance of Priority Bonds or Additional Parity Bonds—Capital Additions:* (i) Initial Issue. The City covenants and agrees that neither Priority Bonds nor Additional Parity Bonds will be issued for the purpose of financing Capital Additions for integration into the Systems, either or both, unless the same conditions precedent specified in subparagraph (a) above have been satisfied and, in addition thereto, the conditions precedent specified in subparagraph (b) above are satisfied or, in the alternative, the City shall have obtained:

(a) from an Independent Engineer a comprehensive Engineering Report for the Capital Addition to be financed, which report shall (a) contain (1) detailed estimates of the cost of acquiring and constructing the Capital Addition, (2) the estimated date the acquisition and construction of the Capital Addition will be completed and commercially operative, and (3) a detailed analysis of the impact of the Capital Addition on the financial operations of the system for which the Capital Addition is to be integrated and to the Systems, as a whole, during the construction thereof and for at least five Fiscal Years after the date the Capital Addition becomes commercially operative, and (b) concludes that (1) the Capital Addition is necessary and will substantially increase the capacity, or is needed to replace existing facilities, to meet current and projected demands for the service or product to be provided thereby, and (2) the estimated cost of providing the service or product from the Capital Addition will be reasonable in comparison with projected costs for furnishing such service or product from other reasonably available sources; and

(b) a certificate of the Independent Engineer to the effect that, based on the Engineering Report prepared for the Capital Addition, the projected Net Earnings for each of the five Fiscal Years subsequent to the date the Capital Addition becomes commercially operative (as estimated in the Engineering Report) will be equal to at least the sum of (i) 1.25 times the average annual requirements for the payment of the principal and interest (or other similar payments) for Priority Bonds and Separate Lien Obligations then outstanding or incurred and all Priority Bonds estimated to be issued, if any, during the period from the date the first series of obligations for the Capital Additions is to be delivered through the 5th Fiscal Year subsequent to the date the Capital Addition is estimated to become commercially operative, for all Capital Improvements and for all Capital Additions then in progress or then being initiated and (ii) 1.10 times the average annual requirements for the payment of principal and interest (or other similar payments) for Bonds and all other obligations (other than Priority Bonds or Separate Lien Obligations) payable solely from the Net Revenues of the Systems, either or both, which are then outstanding or incurred and all Bonds or such other obligations estimated to be issued, if any, during the period from the date the first series of obligations for the Capital Addition is to be delivered through the 5th Fiscal Year subsequent to the date the Capital Addition is estimated to become commercially operative, for all Capital Improvements and for all Capital Additions then in progress or then being initiated.

(ii) Subsequent Issues. Once a Capital Addition has been initiated by meeting the conditions precedent specified in subparagraphs (c)(i)(a) and (c)(i)(b) above and the initial Priority Bonds or Additional Parity Bonds delivered therefor, the City reserves the right to issue Priority Bonds and Additional Parity Bonds, as the case may be, to finance the costs of such Capital Addition in such amounts as may be necessary to complete the acquisition and construction thereof and make the same commercially operative without satisfaction of any condition precedent under subparagraphs (c)(i)(a) and (c)(i)(b) or subparagraph (b) of this Section but subject to satisfaction of the following conditions precedent:

(a) the City makes a forecast (the "Forecast") of the operations of the Systems demonstrating the Systems' ability to pay all obligations, payable solely from the Net Revenues of the Systems, either or both, to be outstanding after the issuance of the Priority Bonds or Additional Parity Bonds then being issued for the period (the "Forecast Period") of each ensuing Fiscal Year through the 5th Fiscal Year subsequent to the latest estimated date the Capital Addition then being financed is expected to be commercially operative, and

B-17

Exhibit B to Utility Construction Contract - Page 19 of 27