

TOWN OF RALEIGH

SPECIFICATIONS AND CONTRACT DOCUMENTS

* * * * *

WATER WELL & APPURTENANCES

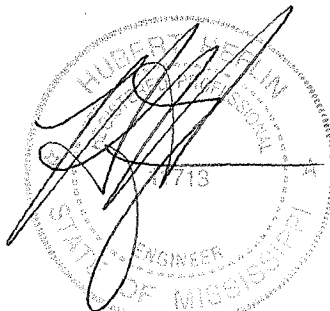
DWSIRLF PROJECT NO. DWI-L0650008-01

TOWN OFFICIALS

BOBBY BOYKINMAYOR
JUDY UPTONTOWN CLERK
HUBERT WESTPUBLIC WORKS DIRECTOR

TOWN BOARD

COLEEN BUTLER
HOPE WESTBROOK
E.B. KEYES
SANDRA PAGE
GENE YOUNG



Prepared by
Heflin Engineering, Inc.
Brandon, Mississippi
July 2021

TOWN OF RALEIGH

WATER WELL & APPURTENANCES

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DAVIS BACON WAGE RATES	

ADVERTISEMENT FOR BIDS

* * * * *

TOWN OF RALEIGH

SEALED proposals will be received by Town of Raleigh at the office of the Engineer, 1700 West Government Street, Building "A" Suite "J", (P.O. Box 47) Brandon, MS 39043, until 10:00 AM, local time, September 3, 2021; at which time and place, the Bids will be publicly opened and read aloud. Any bids received after the closing time will be returned unopened.

The primary element of work shall consist of the construction of one 750 gallon per minute water well and appurtenances.

Copies of the Plans, Specifications, and other Bidding Documents are on file at Heflin Engineering, Inc., 1700 West Government Street, Building "A", Suite "J", Brandon, Mississippi, (P. O. Box 47, Brandon, Mississippi 39043-0047) and the Mississippi Department of Health, 570 East Woodrow Wilson, Jackson, MS (Call Harry Gong, P.E., 601-576-7518 Copies may be obtained at the office of the Engineer upon payment of \$ 50.00 for each set, which is NON-REFUNDABLE.

Minority and woman's business enterprises are solicited to bid on this contract as prime contractors and are encouraged to make inquiries regarding potential subcontracting opportunities, equipment, material and/or supply needs.

This contract is funded in whole or in part by funds from the Consolidated Appropriations Act of 214 (H.R. 3547); therefore, this project must comply with the American Iron and Steel requirements of the Act.

Bid security in the form of a Bid Bond, certified check or cashier's check in an amount equal to five percent (5%) of the Bid shall be furnished by each Bidder as required by the Contract Documents.

This contract is funded in whole or in part by funds from the Consolidated Appropriations Act of 214 (H.R. 3547); therefore, this project must comply with the Buy American requirements of the Act.

Town of Raleigh reserves the right to reject any and all Bids and to waive any and all informalities, and reserves the right to hold all Bids for examination for a period not to exceed sixty (60) days and to award the Contract to the lowest and best Bid complying with the Plans and Specifications within said time.

Any contract or contracts awarded under this invitation for bids are expected to be funded in whole or in part by anticipated funds from the Drinking Water Systems Improvements Revolving Loan Fund (DWSIRLF) loan program from the State of Mississippi. Neither the State of Mississippi, the Local Governments and Rural Water Systems Improvements Board, the State Department of Health, nor any of their employees is or will be a party to this invitation for bids or any resulting or related contracts. This procurement will be subject to all applicable sections of the Mississippi Code of 1972, Annotated, as they apply to local governments, in accordance with Appendix D of the DWSIRLF Program Regulations.

TOWN OF RALEIGH

Judy Upton, Clerk

August 5, 2021
August 12, 2021

INFORMATION FOR BIDDERS

1. Receipt and Opening of Bids: Town of Raleigh (herein called the "Owner") invites bids on the form attached hereto, all blanks of which must be appropriately filled in. Bids will be received by the Owner at the office of the Engineer, 1700 West Government Street, Building "A" Suite "J" (P.O. Box 47), Brandon, Mississippi 39043, until 10:00 AM, local time, September 3 , 20 21; at which time and place, the Bids will be publicly opened and read aloud. The envelopes containing the bids must be sealed, addressed to Town of Raleigh, and designated as Bid for **Water Well & Appurtenances**. The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within sixty (60) days after the actual date of the opening thereof.
2. Preparation of Bid: Each bid must be submitted on the prescribed form. All blank spaces for bid prices must be filled in, in ink or typewritten. Bidders submitting a proposal for any project contained herein must give prices of any and all alternates pertaining to such project. Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his address and the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the bid form. Bidder shall give his Certificate of Responsibility Number on the outside of the sealed envelope.
3. E-Mail Modifications: Any bidder may modify his bid by e-mail communications at any time prior to the scheduled closing time for receipt of bids, provided such facsimile communication is received by the Owner prior to the closing time, and provided further, the Owner is satisfied that a written confirmation of the e-mail communication over the signature of the bidder was mailed prior to the closing time. The e-mail communication should not reveal the bid price, but

should provide the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner until the sealed bid is opened. If written confirmation is not received within two (2) days

4. Method of Bidding: The Owner invites the following bid:

WATER WELL & APPURTENANCES

5. Qualifications of Bidders: The Owner may make such investigations as he deems necessary to determine the ability of the bidder to perform the work and the bidder shall furnish to the owner all such information and data for this purpose as the Owner requests, other than that already required on the bid form.

The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

6. Bid Security: Each bid must be accompanied by cash, certified check of the bidder, or a bid bond prepared on the form of bid bond attached hereto, duly executed by the bidder as principal in the amount of five percent (5%) of the bid. Such cash, checks or bid bonds will be returned to all except the three (3) lowest bidders within three (3) days after the opening of bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of this bid. Attorneys-in-Fact who sign bid or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.
7. Liquidated Damages for Failure to Enter into Contract: The successful bidder, upon his failure or refusal to execute and deliver the contract and bonds required within ten (10) days after he has received notice of the acceptance of his bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his bid.

8. Time and Completion and Liquidated Damages: Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" by the Owner and to fully complete the contract within **330 calendar days.** Bidder must agree to pay as liquidated damages the sum of Fifty Dollars **(\$50.00)** for each consecutive calendar day thereafter as provided in the General Conditions.
9. Conditions of Work: Each bidder must inform himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his obligation to furnish all material and labor necessary to carry out the provisions of his contract. Insofar as possible, the Contractor, in carrying out his work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.
10. Addenda and Interpretation: No interpretation of the meaning of the Plans, Specifications or other pre-bid documents will be made to any bidder orally. Every request for such interpretation should be in writing addressed to the Engineer and to be given consideration must be received at least five (5) days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications, which, if issued, will be mailed to all prospective bidders (at the respective addresses furnished for such purposes), not later than three (3) days prior to the date fixed for the opening of bids. Failure for any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda, so issued, shall become part of the Contract Documents.
11. Laws and Regulations: The bidder's attention is directed to the fact that all applicable laws, ordinances and rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.
12. Minority Business and Women's Business Utilization Requirements: Positive efforts as required in the Drinking Water Systems Improvements Revolving Loan Fund Program Regulations shall be made by BIDDERS to utilize minority owned and women-owned businesses as sources of

construction, materials, supplies and services. Such efforts must allow these sources the maximum feasible opportunity to compete for subagreements and contracts. Documentation of efforts made to utilize minority and women-owned firms must be maintained by all BIDDERS. The OWNER's goal for minority-owned business participation as a percentage of construction cost is **3.1%**. The OWNER's goal for women-owned business participation is **1.2%**. The lowest qualified **BIDDER** must submit to the **OWNER** within 10 days after **BID** opening, proof of compliance with the Contract Provisions including required documentation regarding the use of minority and women's businesses. **(See Supplemental General Conditions, Attachment No. 4)**. The Supplemental General Conditions provide a list of qualified minority and women's business enterprises for assisting contractors in their MBE/WBE solicitation efforts.

13. American Iron and Steel Requirements: This contract is funded in whole or in part by funds from the Consolidated Appropriations Act of 2014 (H.R. 3547). Section 436 states:

(a)(1) None of the funds made available by a State drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12) shall be used for a project for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel products used in the project are produced in the United States. (2) In this section, the term "iron and steel products" means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

(b) Subsection (a) shall not apply in any case or category of cases in which the Administrator of the Environmental Protection Agency (in this section referred to as the "Administrator") finds that -

(1) Applying subsection (a) would be inconsistent with the public interest;

- (2) Iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of satisfactory quality; or
- (3) Inclusion of iron and steel products in the United States will increase the cost of the overall project by more than 25 percent.

14. **Davis-Bacon Act Requirements**

The Contracted Party will comply with Section 110 of the Housing and Community Development Act of 1974, as amended, which requires that all laborers and mechanics employed by contractors or subcontractors on construction work assisted under the Act shall be paid at rates not less than those prevailing on similar construction in the locality as determined by the Secretary of Labor in accordance with the Davis-Bacon Act, as amended 40 U.S.C. 276a-276-a5), and it will comply with the Contract Work Hours and Safety Standards Act (40 U.S.C. 327 et seq.).

**U.S CITIZENSHIP CERTIFICATION FOR MINORITY AND WOMEN BUSINESS
ENTERPRISES**

I certify that _____ is
MBE/WBE Company Name

a _____ owned business enterprise as defined
in

Enter "Minority" or "Women"

Federal Regulations 40 CFR, Part 31. I further certify that I
am a citizen of the United States of America (resident aliens
are not eligible for minority or women owned business status
under programs funded in part by DWISIRLF loans).

Signature of MBE/WBE Business Owner

Date_____

This form is required for each MBE or WBE firm that has not
previously participated in a Water Pollution Control (Clean
Water) Revolving Loan Fund, or Drinking Water Systems
Improvements Revolving Loan funded project.

CERTIFICATION BY PROPOSED PRIME OR SUBCONTRACTOR
REGARDING EQUAL EMPLOYMENT OPPORTUNITY
DWI-L060008-01
(DWSIRLF Project Number)

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246, Part II, Section 203(b), (30 F.R. 12319-25). Any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clauses; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where this certification indicates that the prime or subcontractor has not filed a compliance report due under applicable instruction, such contractor shall be required to submit a compliance report.

THIS FORM ALONG WITH ITEMS LISTED IN SPECIAL NOTICE #1 IS TO BE SUBMITTED BY LOW BIDDER AND PROPOSED SUBCONTRACTORS WITH A PROCUREMENT VALUE OVER \$10,000 TO THE OWNER TEN (10) DAYS AFTER BID OPENING.

(SEE SUPPLEMENTAL GENERAL CONDITIONS, ATTACHMENT #3)

Prime or Subcontractor's Name: _____

Address: _____

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause. YES _____ NO _____

2. Compliance Reports were required to be filed in connection with such contract or subcontract. YES _____ NO _____

If YES, state what reports were filed and with what agency.

3. Bidder has filed all compliance reports due under applicable instructions. YES _____ NO _____

4. If answer to item 3 is NO, please explain in detail on reverse side of this certification.

The information above is true and complete to the best of my knowledge and belief. (A willfully false statement is punishable by law - U.S. Code, Title 18, Section 1001.)

NAME AND TITLE OF SIGNER (PLEASE TYPE)

SIGNATURE

DATE _____

CERTIFICATION REGARDING DEBARMENT, SUSPENSION
AND OTHER RESPONSIBILITY MATTERS

Under Executive Order 12549 individuals or organizations debarred from participation in Federal Assistance Programs may not receive an assistance award under a federal program or subagreement thereunder for \$25,000 or more. Accordingly each recipient of a Drinking Water Systems Improvements Revolving Loan Fund loan or a contract (engineering or construction) awarded under a loan must complete the following certification (see 40 CFR 32.510).

The loan recipient must obtain this certification from all contractors (prime construction contractor and subcontractors/equipment/material suppliers). The DEQ will not approve the award of a contract for DWSIRLF participation until the loan recipient certifies that certification has been obtained from the successful bidder and his sub-contractors. Prime and subcontractor/equipment/material suppliers certifications must be included with the executed contract documents submittal to the Department.

The prospective participant certifies to the best of their knowledge and belief that it and its principals:

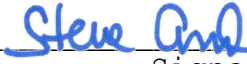
(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and

(d) Have not within a three year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 U.S.C. Subsection 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

<u>Layne Christensen Company</u>	 9/3/21
Prime or Subcontractor's Name	Signature/Date

() I am unable to certify to the above statements. Attached is my explanation.

PROPOSAL

PROPOSAL OF: Layne Christensen Company

(Name)

1212 University Street Memphis, TN 38108

(Address)

to furnish and deliver all materials and to do all work in accordance with the Plans, Specifications and Contract Documents of the Town of Raleigh for the Water Well & Appurtenances.

TO: Town of Raleigh
P.O. Box 355
Raleigh, Mississippi 39153

Gentlemen:

The undersigned bidder has carefully examined the Specifications and Contract Documents herewith attached, the drawings for the water well and appurtenances herein described, and has ascertained the conditions at the site or sites of work.

The undersigned hereby proposes to furnish all labor, tools, equipment, materials and supplies necessary to complete the satisfactory construction of the water well and appurtenances, all as required herein under the terms of the contract, at and for the prices set forth herein.

It is understood that the quantities of work shown in the Proposal are approximate and are subject to increase or decrease, and that the undersigned will perform the work at the unit prices indicated in the Proposal whether the quantities are increased or decreased.

The undersigned bidder agrees to abide by the requirements of Executive Order No. 11246, as amended.

BID

TOWN OF RALEIGH

WATER WELL & APPURTENANCES

<u>Item No.</u>	<u>Quantity & Unit</u>	<u>Item</u>	<u>Price</u>
1	1 L.S.	Test Hole & Logs, Bid Depth 1,350 Feet, Add or Deduct per Foot _____	\$ _____
2	1 L.S.	Gravel Wall Well, 750 GPM 16" X 10", Bid Depth 1,290 Feet Add or Deduct Per Foot _____	_____
3	1 L.S.	Vertical Turbine Pump 750 GPM @ 140 Feet (AGH)	_____
4	1 L.S.	Electrical	_____
5	1 L.S.	Yard Piping	_____
6	1 L.S.	Chlorination Equipment	_____
TOTAL BID			\$ _____

The Bidder understands that the Owner reserves the right to reject all of the proposed work. The Owner further reserves the right to award the work in accordance with the bid proposal and to waive any informalities in the bidding. Accompanying this proposal is a bid bond, cashier's check or certified check in the amount of _____ 5%

_____ Dollars (\$ _____),
which shall become the property of the Town of Raleigh as
liquidated damages if the undersigned fails to execute a
contract and to furnish bond, as specified herein within ten
(10) days after receipt of written notice of such acceptance and
receipt of the prescribed forms.

The undersigned hereby declares that he has carefully examined
the "Instructions to Bidders" and accepts them and has carefully
examined the "General Conditions" of the Contract, the
"Specifications and Contract Documents" and that his bid is
based thereon.

Date: 9/3/21 Bidder: Layne Christensen Company

By: _____
Steve Anderson

Title: Area Manager

Address: 1212 University Street

Memphis, TN 38108

Telephone: 901-274-2324

(S E A L) If Bidder is a Corporation

NOTE: Fill in separate unbound copy of the bid form with ink or
type and submit complete with attached papers, bid security and
power of attorney.

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,
_____,
as Principal and _____,
as Surety, are hereby held and firmly bound unto
as Owner in the penal sum of _____
_____ Dollars
(\$ _____) for the payment of which, well and truly
to be made, we hereby jointly and severally bind ourselves,
successors and assigns.

Signed, this the _____ day of _____, 202__.

The Condition of the above obligation is such that whereas the
Principal has submitted to _____
a certain Bid, attached hereto and hereby made a part hereof to
enter into a contract in writing, for the _____
_____.

NOW, THEREFORE,

- (a) If said Bid shall be rejected, or in the alternative,
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his faithful performance of said contract, and for the payment of

all persons performing labor or furnishing materials in connection therewith, and shall, in all other respects, perform the agreement created by the acceptance of said Bid,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated. The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bid; and said surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

(L.S.)

Principal

Surety

By: _____

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

AGREEMENT

THIS AGREEMENT, made this ____ day of _____, 2021,
by and between Town of Raleigh
(Name of Owner)
hereinafter called "Owner" and _____
doing business as a corporation, partnership or individual,
hereinafter called "Contractor".

W I T N E S S E T H:

That for and in consideration of the payments and agree-
ments hereinafter mentioned:

1. The Contractor will commence and complete the
construction of Water Well & Appurtenances.

2. The Contractor will furnish all of the material,
supplies, tools, equipment, labor and other services
necessary for the construction and completion of the
project described herein.

3. The Contractor will commence the work required by the
Contract Documents within 10 calendar days after the
date of the Notice to Proceed and will complete the same
within 330 calendar days, unless the period for
completion is extended otherwise by the Contract Documents.

4. The Contractor agrees to perform all of the work
described in the Contract Documents for the sum
of _____

Dollars

(\$_____).

5. The term "Contract Documents" means and includes the
following:

- a. Advertisement for Bids
- b. Information for Bidders
- c. Bid
- d. Bid Bond
- e. Agreement
- f. General Conditions

- g. Supplemental General Conditions
- h. Payment Bond
- i. Performance Bond
- j. Notice to Proceed
- k. Change Order
- l. Notice of Award
- m. Drawings prepared by Heflin Engineering, Inc.,
numbered 1 through _____ and dated _____.
- n. Specifications prepared or issued by Heflin Engineering, Inc., dated _____
- o. Addenda:
No. _____ dated _____, 202_____
No. _____ dated _____, 202_____

6. The Owner will pay the Contractor in the manner and at such times as set forth in the General Conditions such amounts as required by the Contract Documents.

7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors and assigns.

IN WITNESS WHEREOF, the parties hereto have executed or caused to be executed by their duly authorized officials, this Agreement
in 5 copies, each of which shall be deemed an original on the date first above written.

CONTRACTOR

OWNER

Town of Raleigh

By: _____

By: _____

Name: _____
(Please type or print)

Name: Bobby Boykin
(Please type or print)

Title: _____

Title: Mayor

Address: _____

Address: _____

(S E A L)

ATTEST: _____

Name: _____
(Please type or print)

Title: _____

(S E A L)

Attest: _____

Name: _____
(Please type or print)

Title: _____

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____ hereinafter called
(Corporation, Partnership or Individual)

Principal, and _____
(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

(Name of Owner)

(Address of Owner)

hereinafter called Owner, and until all persons, firms, and corporations who or which may furnish labor, or who furnish materials to perform as described under the contract and to their successors and assigns in the total aggregate penal sum of

_____ Dollars
(\$_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, joint and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas the Principal entered into a certain contract with the Owner, dated the _____ day of _____, 202__, a copy of which is hereto attached and made a part hereof for the construction of:

.

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms and corporations furnishing materials for or performing labor in the prosecution of the Work provided for in such contract, and any authorized extensions or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and for all labor cost incurred in such work, including that by a subcontractor, and to any mechanic or materialman lienholder whether it acquires its liens by operation of state or federal law; then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, that beneficiaries or claimants hereunder shall be limited to the subcontractors and persons, firms and corporations having a direct contract with the Principal or its subcontractors.

PROVIDED, FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to work to be performed thereunder or the Specifications accompanying same shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the Specifications.

PROVIDED, FURTHER, that no suit or action shall be commenced hereunder by any claimant: (a) unless claimant, other than one having a direct contract with the Principal (or with the Government, in the event the Government is performing the obligations of the Owner), shall have given written notice to any two of the following: The Principal, the Owner, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, starting with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner or Surety, at any place where an office is regularly maintained for

the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer; (b) after the expiration of one (1) year following the date of which Principal ceased work on said contract, it being understood, however, that if any limitation embodied in the Bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

PROVIDED, FURTHER, that it is expressly agreed that the Bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the contract price more than twenty percent (20%), so as to bind the Principal and the Surety to the full and faithful performance of the Contract as so amended. The term "Amendment" wherever used in this Bond, and whether referring to this Bond, the Contract or the Loan Documents, shall include any alteration, addition, extension or modification of any character, whatsoever.

PROVIDED FURTHER, that no final settlement between the Owner or Government and the Contractor shall abridge the right of the other beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____
(number)
counterparts, each one of which shall be deemed an original,
this, the _____ day of _____, 202__.
ATTEST:

(Principal) Secretary
(SEAL)

Principal
By: _____(s)

Address: _____

Witness as to Principal
Address: _____

ATTEST:

Surety

Witness as to Surety
Address: _____

By: _____
Attorney in Fact
Address: _____

NOTE: Date of Bond must not be prior to date of Contract.

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the Project is located.

If Contractor is partnership, all partners should execute Bond.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that _____

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter
called _____

(Corporation, Partnership or Individual)

Principal, and _____
(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto _____

(Name of Owner)

(Address of Owner)

hereinafter called Owner, in the penal sum of _____ Dollars
(\$_____) in lawful money of the United States, for
the payment of which sum well and truly to be made, we bind
ourselves, our heirs, executors, administrators, successors and
assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the
Principal entered into a certain contract with the Owner, dated
the _____ day of _____, 202_, a copy of which is
hereto attached and made a part hereof, for the construction of:

NOW, THEREFORE, if the Principal shall well, truly and
faithfully perform its duties, all the undertakings, covenants,
terms, conditions and agreements of said contract during the
original term thereof, and any extensions thereof which may be
granted by the Owner, or Government, with or without notice to
the Surety and during the one-year guaranty period, and if the
Principal shall satisfy all claims and demands incurred under
such contract, and shall fully indemnify and safe harmless the
Owner and Government from all costs and damages which it may

suffer by reason of failure to do so, and shall reimburse and repay the Owner and Government all outlay and expense which the Owner and Government may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the liability of the Principal and Surety hereunder to the Government shall be subject to the same limitations and defenses as may be available to them against a claim hereunder by the Owner, provided, however, that the Government may, at its option, perform any obligations of the Owner required by the Contract.

PROVIDED, FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to work to be performed thereunder or the Specifications accompanying same shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the Specifications.

PROVIDED, FURTHER, that it is expressly agreed that the Bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract, not increasing the contract price more than twenty percent (20%), so as to bind the Principal and the Surety to the full and faithful performance of the Contract as so amended. The term "Amendment" wherever used in this Bond, and whether referring to this Bond, the Contract or the Loan Documents, shall include any alteration, addition, extension or modification of any character, whatsoever.

PROVIDED, FURTHER, that no final settlement between the Owner or Government and the Principal shall abridge the right of the other beneficiary hereunder, whose claim may be unsatisfied. The Owner and Government are the only beneficiaries hereunder.

IN WITNESS WHEREOF, this instrument is executed in _____
(Number)
counterparts, each one of which shall be deemed an original,
this the _____ day of _____, 202_.

ATTEST:

(Principal) Secretary

(SEAL)

Principal

By: _____(s)

Address: _____

Witness as to Principal

Address: _____

ATTEST:

Surety

Witness as to Surety

Address: _____

By: _____
Attorney in Fact

Address: _____

NOTE: Date of Bond must not be prior to date of Contract.

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the Project is located.

If Contractor is partnership, all partners should execute Bond.

GENERAL CONDITIONS

- | | |
|--|--|
| 1. Definitions | 16. Correction of Work |
| 2. Additional Instructions and Detail Drawings | 17. Subsurface Conditions |
| 3. Schedules, Reports and Records | 18. Suspension of Work, Termination, and Delay |
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| 14. Changes in Contract Price and | 29. Guaranty |
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| | 31. Taxes |

1. DEFINITIONS

- 1.1 Wherever used in the CONTRACT DOCUMENTS, the following terms shall have the meanings indicated and shall be applicable to both the singular and plural thereof:
- 1.2 ADDENDA: Written or graphic instruments issued prior to the execution of the AGREEMENT which modify or interpret the CONTRACT DOCUMENTS, Drawings and SPECIFICATIONS, by additions, deletions, clarifications or corrections.
- 1.3. BID: The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the WORK to be performed.
- 1.4 BIDDER: Any person, firm or corporation submitting a Bid for the WORK.
- 1.5 BONDS: Bid, Performance and Payment BONDS and other instruments of surety, furnished by the CONTRACTOR and the CONTRACTOR surety in accordance with the CONTRACT DOCUMENTS.
- 1.6 CHANGE ORDER: A written order to the CONTRACTOR authorizing an addition, deletion or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT TIME.
- 1.7 CONTRACT DOCUMENTS: The CONTRACT, including Advertisement for BIDS, Information for BIDDERS, BID, BID BOND, Agreement, Payment BOND, Performance BOND, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS and ADDENDA.

- 1.8 CONTRACT PRICE: The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.
- 1.9 CONTRACT TIME: The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.
- 1.10 CONTRACTOR: The person, firm, or corporation with whom the OWNER has executed the AGREEMENT.
- 1.11 DRAWINGS: The parts of the CONTRACT DOCUMENTS which show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.
- 1.12 ENGINEER: The person, firm or corporation named as such in the CONTRACT DOCUMENTS.
- 1.13 FIELD ORDER: A written order affecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.
- 1.14 NOTICE OF AWARD: The WRITTEN NOTICE of the acceptance of the BID from the OWNER to the successful Bidder.
- 1.15 NOTICE TO PROCEED: Written communication issued by the OWNER to the CONTRACTOR authorizing him to proceed with the WORK and establishing the date of commencement of the WORK.
- 1.16 OWNER: A public or quasi-public body or authority, corporation, association, partnership, or an individual for whom the WORK is to be performed.
- 1.17 PROJECT: The undertaking to be performed as provided in the CONTRACT DOCUMENTS.
- 1.18 RESIDENT PROJECT REPRESENTATIVE: The authorized representative of the OWNER who is assigned to the Project site or any part thereof.
- 1.19 SHOP DRAWINGS: All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a Subcontractor, manufacturer, Supplier or distributor, which illustrate how specific portions of the WORK shall be fabricated or installed.
- 1.20 SPECIFICATIONS: A part of the CONTRACT DOCUMENTS consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.
- 1.21 SUBCONTRACTOR: An individual, firm or corporation having a direct CONTRACT with the CONTRACTOR or with any other Subcontractor for the performance of a part of the WORK at the

site.

- 1.22 SUBSTANTIAL COMPLETION: That date as certified by the ENGINEER when the construction of the Project or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the Project or specified part can be utilized for the purposes for which it is intended.
- 1.23 SUPPLEMENTAL GENERAL CONDITIONS: Modifications to General Conditions required by a Federal agency for participation in the Project and approved by the agency in writing prior to inclusion in the CONTRACT DOCUMENTS or such requirements that may be imposed by applicable state laws.
- 1.24 SUPPLIER: Any person or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.
- 1.25 WORK: All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the Project.
- 1.26 WRITTEN NOTICE: Any notice to any party of the AGREEMENT relative to any part of this AGREEMENT in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the WORK.

2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS

- 2.1 The CONTRACTOR may be furnished additional instructions and detail drawings, by the ENGINEER, as necessary to carry out the WORK required by the CONTRACT DOCUMENTS.
- 2.2 The additional drawings and instructions thus supplied will become a part of the CONTRACT DOCUMENTS. The CONTRACTOR shall carry out the WORK in accordance with the additional detail drawings and instructions.

3. SCHEDULES, REPORTS AND RECORDS

- 3.1 The CONTRACTOR shall submit to the OWNER such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data where applicable as are required by the CONTRACT DOCUMENTS for the WORK to be performed.
- 3.2 Prior to the first partial payment estimate the CONTRACTOR shall submit progress schedules showing the order in which he proposes to carry on the WORK will be started, including dates at which the various parts of the WORK, estimated date of completion of each part and, as applicable:

- 3.2.1 The dates at which special detail drawings will be required; and
- 3.2.2 Respective dates for submission of Shop Drawings, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.
- 3.2.3 The CONTRACTOR shall also submit a schedule of payments that he anticipates he will earn during the course of the WORK.

4. DRAWINGS AND SPECIFICATIONS

- 4.1 The intent of the Drawings and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidental WORK necessary to complete the Project in an acceptable manner, ready for use, occupancy or operation by the OWNER.
- 4.2 In case of conflict between the Drawings and SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions on Drawings shall govern over general Drawings.
- 4.3 Any discrepancies found between the Drawings and SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the Drawings or SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR'S risk.

5. SHOP DRAWINGS

- 5.1 The CONTRACTOR shall provide Shop Drawings as may be necessary for the prosecution of the WORK as required by the CONTRACT DOCUMENTS. The ENGINEER shall promptly review all Shop Drawings. The ENGINEER'S approval of any Shop Drawing shall not release the CONTRACTOR from responsibility for deviations from the CONTRACT DOCUMENTS. The approval of any Shop Drawing which substantially deviates from the requirement of the CONTRACT DOCUMENTS shall be evidenced by a CHANGE ORDER.
- 5.2 When submitted for the ENGINEER'S review, Shop Drawings shall bear the CONTRACTOR'S certification that he has reviewed, checked and approved the Shop Drawings and that they are in conformance with the requirements of the CONTRACT DOCUMENTS.
- 5.3 Portions of the WORK requiring a Shop Drawing or sample submission shall not begin until the Shop Drawing or submission has been approved by the ENGINEER. A copy of each approved Shop Drawing and each approved sample shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

6. MATERIALS, SERVICES AND FACILITIES

- 6.1 It is understood that, except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the WORK within the specified time.
- 6.2 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK. Stored materials and equipment to be incorporated in the WORK shall be located so as to facilitate prompt inspection.
- 6.3 Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.
- 6.4 Materials, supplies and equipment shall be in accordance with samples submitted by the CONTRACTOR and approved by the ENGINEER.
- 6.5 Materials, supplies or equipment to be incorporated into the WORK shall not be purchased by the CONTRACTOR or the Subcontractor subject to a chattel mortgage or under a conditional sale CONTRACT or other AGREEMENT by which an interest is retained by the seller.

7. INSPECTION AND TESTING

- 7.1 All materials and equipment used in the construction of the Project shall be subject to adequate inspection and testing in accordance with generally accepted standards as required and defined in the CONTRACT DOCUMENTS.
- 7.2 The OWNER shall provide all other inspection and testing services not required by the CONTRACT DOCUMENTS.
- 7.3 The CONTRACTOR shall provide at his expense the necessary testing and inspection services required by the CONTRACT DOCUMENTS.
- 7.4 If the CONTRACT DOCUMENTS, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any WORK to specifically be inspected, tested, or approved by someone other than the CONTRACTOR, the CONTRACTOR will give the ENGINEER timely notice of readiness. The CONTRACTOR will then furnish the ENGINEER the required certificates of inspection, testing or approval.
- 7.5 Neither observations by the ENGINEER nor inspections, test or approvals by persons other than the CONTRACTOR shall relieve the CONTRACTOR from his obligations to perform the WORK in accordance with the requirements of the Contract DOCUMENTS.
- 7.6 The ENGINEER and his representatives will at all times have

access to the WORK. In addition, authorized representatives and agents of any participating Federal or State agency shall be permitted to inspect all WORK, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The CONTRACTOR will provide proper facilities for such access and observation of the WORK and also for any inspection, or testing thereof.

- 7.7 If any WORK is covered contrary to the written request of the ENGINEER it must, if required by the ENGINEER, be uncovered for his observation and replaced at the CONTRACTOR'S expense.
- 7.8 If the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR at the ENGINEER'S request, will uncover, exposed or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the WORK in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such WORK is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such WORK is not found to be defective, the CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to such uncovering, exposure, observation inspection, testing and reconstruction and an appropriate CHANGE ORDER shall be issued.

8. SUBSTITUTIONS

- 8.1 Whenever a material, article or piece of equipment is identified on the Drawings or SPECIFICATIONS by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The CONTRACTOR may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the CONTRACT DOCUMENTS by reference to brand name or catalogue number, and if in the opinion of the ENGINEER, such material, article, or piece of equipment is of equal substance and function to that specified, the ENGINEER may approve its substitution and use by the CONTRACTOR. Any cost differential shall be deductible from the CONTRACT PRICE and the CONTRACT DOCUMENTS shall be appropriately modified by CHANGE ORDER. The CONTRACTOR warrants that if substitutes are approved, no major changes in the function or general design of the Project will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the CONTRACTOR without a change in the CONTRACT PRICE or CONTRACT TIME.

9. PATENTS

- 9.1 The CONTRACTOR shall pay all applicable royalties and license fees and shall defend all suits or claims for infringement of any

patent rights and save the OWNER harmless from loss on account thereof, except that the OWNER shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, but if the CONTRACTOR has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the ENGINEER.

10. SURVEYS, PERMITS, REGULATIONS

10.1 The OWNER shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the WORK together with a suitable number of bench marks adjacent to the WORK as shown in the CONTRACT DOCUMENTS. From the information provided by the OWNER, unless otherwise specified in the CONTRACT DOCUMENTS, the CONTRACTOR shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pipe locations and other working points, lines, elevations and cut sheets.

10.2 The CONTRACTOR shall carefully preserve bench marks, reference points and stakes and, in case of willful or careless destruction, he shall be charged with the resulting expense, and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

10.3 Permits and licenses of a temporary nature necessary for the prosecution of the WORK shall be secured and paid for by the CONTRACTOR. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the OWNER, unless otherwise specified. The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the WORK as drawn and specified. If the CONTRACTOR observes that the CONTRACT DOCUMENTS are at variance therewith, he shall promptly notify the ENGINEER in writing, and any necessary changes shall be adjusted as provided in Section 13, Changes in the WORK.

11. PROTECTION OF WORK, PROPERTY AND PERSONS

11.1 The CONTRACTOR will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the WORK. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the WORK and other persons who may be affected thereby, all the WORK and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

11.2 The CONTRACTOR will comply with all applicable laws, ordinances,

rules, regulations and orders of any public body having jurisdiction. He will erect and maintain, as required by the conditions and progress of the WORK, all necessary safeguards for safety and protection. He will notify OWNERS of adjacent utilities when prosecution of the WORK may affect them. The CONTRACTOR will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or to the acts or omissions of the OWNER or the ENGINEER or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.

- 11.3 In emergencies affecting the safety of persons or the WORK or property at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury or loss. He will give the ENGINEER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes in deviations involved.

12. SUPERVISION BY CONTRACTOR

- 12.1 The CONTRACTOR will supervise and direct the WORK. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR will employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the WORK.

13. CHANGES IN THE WORK

- 13.1 The OWNER may at any time, as the need arises, order changes within the scope of the WORK without invalidating the AGREEMENT. If such changes increase or decrease the amount due under the CONTRACT DOCUMENTS, or in the time required for performance of the WORK, an equitable adjustment shall be authorized by CHANGE ORDER.
- 13.2 The ENGINEER, also, may at any time, by issuing a Field Order, make changes in the details of the WORK. The CONTRACTOR shall proceed with the performance of any changes in the WORK so ordered by the ENGINEER unless the CONTRACTOR believes that such Field Order entitles him to a change in CONTRACT PRICE or TIME, or both, in which event he shall give the ENGINEER WRITTEN NOTICE

thereof within fifteen (15) days after the receipt of the ordered change, and the CONTRACTOR shall not execute such changes pending the receipt of an executed CHANGE ORDER of further instruction from the OWNER.

14. CHANGES IN CONTRACT PRICE

14.1 The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or of any claim for increase or decrease in the CONTRACT PRICE shall be determined by one or more of the following methods in the order of precedence listed below:

- a. Unit bid prices previously approved.
- b. An agreed lump sum.

15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

15.1 The date of beginning and the TIME for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the Notice to Proceed.

15.2 The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.

15.3 If the CONTRACTOR shall fail to complete the WORK within the Contract TIME, or extension of TIME granted by the OWNER, then the CONTRACTOR will pay to the OWNER the amount for liquidated damages as specified in the BID for each calendar day that the CONTRACTOR shall be in default after the TIME stipulated in the CONTRACT DOCUMENTS.

15.4 The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following, and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER.

15.4.1 To any preference, priority or allocation order duly issued by the OWNER.

15.4.2 To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or the public enemy, acts of the OWNER, acts of the CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemic, quarantine, restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and

15.4.3 To any delays of SUBCONTRACTORS occasioned by any of the causes

specified in paragraph 15.4.1 and 15.4.2 of this article.

16. CORRECTION OF WORK

16.1 The CONTRACTOR shall promptly remove from the premises all WORK rejected by the ENGINEER for failure to comply with the CONTRACT DOCUMENTS, whether incorporated in the construction or not, and the CONTRACTOR shall promptly replace and re-execute the WORK in accordance with the CONTRACT DOCUMENTS and without expense to the OWNER and shall bear the expense of making good all WORK of other CONTRACTS destroyed or damaged by such removal or replacement.

16.2 All removal and replacement WORK shall be done at the CONTRACTOR'S expense. If the CONTRACTOR does not take action to remove such rejected WORK within ten (10) days after receipt of WRITTEN NOTICE, the OWNER may remove such WORK and store the materials at the expense of the CONTRACTOR.

17. SUBSURFACE CONDITIONS

17.1 The CONTRACTOR shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the OWNER by WRITTEN NOTICE of:

17.1.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the CONTRACT DOCUMENTS; or

17.1.2 Unknowing physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in WORK of the Character provided for in the CONTRACT DOCUMENTS.

17.2 The OWNER shall promptly investigate the conditions, and if it is found that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the TIME required for, performance of the WORK, and equitable adjustment shall be made and the CONTRACT DOCUMENTS shall be modified by a CHANGE ORDER. Any claim of the CONTRACTOR for adjustment hereunder shall not be allowed unless the required WRITTEN NOTICE has been given; provided that the OWNER may, if the OWNER determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

18. SUSPENSION ON WORK, TERMINATION AND DELAY

18.1 The OWNER may suspend the WORK or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the CONTRACTOR, by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which notice shall fix the date on which WORK shall be resumed. The CONTRACTOR will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.

- 18.2 If the CONTRACTOR is adjudged bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of its property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials or equipment, or disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the WORK or disregards the authority of the ENGINEER, or otherwise violates any provision of the CONTRACT DOCUMENTS, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and his surety a minimum of ten (10) days from delivery of a WRITTEN NOTICE, terminate the services of the CONTRACTOR and take possession of the Project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the CONTRACTOR, and finish the WORK by whatever method he may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceed the direct and indirect costs of completing the Project, including compensation for additional professional services, such excess shall be paid to the CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.
- 18.3 Where the CONTRACTOR'S service have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.
- 18.4 After ten (10) days from delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the Project and terminate the CONTRACT. In such case, the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.
- 18.5 If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days after it is submitted, or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within thirty (30) days of its approval and presentation, then the CONTRACTOR may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER, terminate the CONTRACT and recover from the OWNER payment for WORK executed and all expenses sustained. In addition and in

lieu of terminating the CONTRACT, if the ENGINEER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days notice to the OWNER and the ENGINEER stop the WORK until he has been paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK.

- 18.6 If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no TIME is specified, within a reasonable time, an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, shall be made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays necessarily caused by the failure of the OWNER or ENGINEER.

19. PAYMENT TO CONTRACTOR

- 19.1 At least ten (10) days before each progress payment falls due (but not more often than once a month), the CONTRACTOR will submit to the ENGINEER a partial payment estimate filled out and signed by the CONTRACTOR covering the WORK performed during the period covered by the partial payment estimate and supported by such data the ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the WORK by delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the OWNER, as will establish the OWNER'S title to the material and equipment and protect the OWNER'S interest therein, including applicable insurance. The ENGINEER will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing approval of payment, and present the partial payment estimate to the OWNER, or return the partial payment estimate to the CONTRACTOR indicating in writing the reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the partial payment estimate. The OWNER will, within ten (10) days of presentation of an approved partial payment estimate, pay the CONTRACTOR a progress payment on the basis of the approved partial payment estimate less the retainage. The retainage shall be an amount equal to 10% of said estimate until 50% of the WORK has been completed. At 50% completion, further partial payments shall be made in full to the CONTRACTOR and no additional amounts may be retained unless the ENGINEER certifies that the job is not proceeding satisfactorily, but amounts previously retained shall not be paid to the CONTRACTOR. At 50% completion or any time thereafter when the progress of the WORK is not satisfactory, additional amounts may be retained but in no event shall total retainage be more than 10% of the value of the WORK completed. Upon SUBSTANTIAL COMPLETION of the WORK, any amount retained may be paid to the CONTRACTOR. When the WORK has been substantially completed

except for WORK which cannot be completed because of weather conditions, lack of materials, or other reasons which in the judgement of the OWNER are valid reasons for non- completion, the OWNER may make additional payments, retaining at all times an amount sufficient to cover the estimated cost of the WORK still to be completed.

- 19.2 The request for payment may also include an allowance for the cost of such major materials and equipment which are suitably stored either at or near the site.
- 19.3 Prior to SUBSTANTIAL COMPLETION, the OWNER, with the approval of the ENGINEER and with concurrence of the CONTRACTOR, may use any completed or substantially completed portions of the WORK. Such use shall not constitute an acceptance of such portions of the WORK.
- 19.4 The OWNER shall have the right to enter the premises for the purpose of doing WORK not covered by the CONTRACT DOCUMENTS. This provision shall not be construed as relieving the CONTRACTOR of the sole responsibility for the care and protection of the WORK, or the restoration of any damaged WORK except such as may be caused by agents or employees of the OWNER.
- 19.5 Upon completion and acceptance of the WORK, the ENGINEER shall issue a certificate attached to the final payment request that the WORK has been accepted by him under the conditions of the CONTRACT DOCUMENTS. The entire balance found to be due the CONTRACTOR, including the retained percentages, but except such sums as may be lawfully retained by the OWNER, shall be paid to the CONTRACTOR within thirty (30) days of completion and acceptance of the WORK.
- 19.6 The CONTRACTOR will indemnify and save the OWNER or the OWNER'S agents harmless from all claims growing out of the lawful demands of SUBCONTRACTORS, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred to the furtherance of the performance of the WORK. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR fails to do so the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to pay any an all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharge whereupon payment to the CONTRACTOR shall be resumed, in accordance with the terms of the CONTRACT DOCUMENTS, but in no event shall be provisions of this sentence be construed to impose any obligations upon the OWNER to either the CONTRACTOR, his Surety, or any third party. In paying any unpaid bills of the CONTRACTOR, any payment so made by the OWNER shall be considered as a payment made under the CONTRACT DOCUMENTS by the OWNER to the CONTRACTOR and the OWNER shall not be liable to

the CONTRACTOR for any such payments made in good faith.

- 19.7 If the OWNER fails to make payment 30 days after approval by the ENGINEER, in addition to the remedied available to the CONTRACTOR, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the CONTRACTOR.

20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

- 20.1 The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER of all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically expected by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the OWNER and others relating to or arising out of this WORK. Any payment, however, final or otherwise, shall not release the CONTRACTOR or his sureties from any obligations under the CONTRACT DOCUMENTS or the Performance and Payment BONDS.

21. INSURANCE

- 21.1 The CONTRACTOR shall purchase and maintain such insurance as will protect it from claims set forth below which may arise out of or result from the CONTRACTOR'S execution of the WORK, whether such execution be by himself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

21.1.1 Claims under workmen's compensation, disability benefit and other similar employee benefit acts;

21.1.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of employees;

21.1.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;

21.1.4 Claims for damages insured by usual personal injury liability coverage which are sustained by (1) any person as a result of an offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (2) any other person; and

21.1.5 Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

- 21.2 Certificates of Insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the WORK. These Certificates shall contain a provision that coverages afforded under the policies will not be cancelled unless at least fifteen

(15) days prior to WRITTEN NOTICE has been given to the OWNER.

21.3 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, liability insurance as hereinafter specified:

21.3.1 CONTRACTOR'S General Public Liability and Property Damage Insurance including vehicle coverage issued to the CONTRACTOR and protecting him from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any operations under the CONTRACT DOCUMENTS, whether such operations be by himself or by any Subcontractor employed by the CONTRACTOR, or anyone directly or indirectly employed by the CONTRACTOR or by a Subcontractor employed by the CONTRACTOR. Insurance shall be written with a limit of liability of not less than \$500,000 for all damages arising out of bodily injury, including death, at any time resulting therefor, sustained by any one person in any one accident; and a limit of liability of not less than \$500,000 for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than \$200,000 for any such damage sustained by two or more persons in any on accident.

21.3.2 The CONTRACTOR shall acquire and maintain, if applicable, Fire and Extended Coverage Insurance upon the Project to the full insurable value thereof for the benefit of the OWNER, the CONTRACTOR, and Subcontractors as their interest may appear. This provision shall in no way release the CONTRACTOR or CONTRACTOR'S surety from obligations under the CONTRACT DOCUMENTS to fully complete the Project.

21.4 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, in accordance with the provisions of the laws of the state in which the WORK is performed, Workmen's Compensation Insurance, including occupational disease provisions, for all of his employees at the site of the Project and in case any WORK is sublet, the CONTRACTOR shall require such Subcontractor similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. In case any class of employees engaged in hazardous WORK under this CONTRACT at the site of the Project is not protected under Workmen's Compensation Statute, the CONTRACTOR shall provide, and shall cause each Subcontractor to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.

21.5 The CONTRACTOR shall secure, if applicable, "All Risk" type

Builder's Risk Insurance for WORK to be performed. Unless specifically authorized by the OWNER, the amount of such insurance shall not be less than the CONTRACT PRICE totaled in the Bid. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the CONTRACT TIME, and until the WORK is accepted by the OWNER. The policy shall name as the insured the CONTRACTOR and the OWNER.

22. CONTRACT SECURITY

22.1 The CONTRACTOR shall within ten (10) days after the receipt of the Notice of Award furnish the OWNER with a Performance BOND and a Payment BOND in penal sums equal to the amount of the CONTRACT PRICE, conditioned upon the performance by the CONTRACTOR of all undertakings, covenants, terms, conditions and AGREEMENTS of the CONTRACT DOCUMENTS, and upon the prompt payment by the CONTRACTOR to all persons applying labor and materials in the prosecution of the WORK provided by the CONTRACT DOCUMENTS. Such BONDS shall be executed by the CONTRACTOR and a corporate bonding company licensed to transact such business in the state in which the WORK is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these BONDS shall be borne by the CONTRACTOR. If at any time a surety on any such BOND is declared bankrupt or loses its right to do business in the state in which the WORK is to be performed or is removed from the list of Surety Companies accepted on Federal Bonds, CONTRACTOR shall within ten (10) days after notice from the OWNER to do so, substitute an acceptable BOND (or BONDS) in such forms and sum and signed by such other surety or sureties as may be satisfactory to the OWNER. The premiums on such BOND shall be paid by the CONTRACTOR. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable BOND to the OWNER.

23. ASSIGNMENTS

23.1 Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign or otherwise dispose of the CONTRACT or any portion thereof, or of his right, title or interest therein, or his obligations thereunder, without written consent of the other party.

24. INDEMNIFICATION

24.1 The CONTRACTOR will indemnify and hold harmless the OWNER and the ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including attorneys' fees arising out of or resulting from the performance of the WORK, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury of or destruction of tangible property, including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and

Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

24.2 In any and all claims against the OWNER or the ENGINEER, or any of their agents or employees, by any employee of the CONTRACTOR, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any Subcontractor under workmen's compensation acts, disability benefit acts or other employee benefits acts.

24.3 The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the ENGINEER, his agents or employees arising out of the preparation or approval of maps, Drawings, opinions, reports, surveys, CHANGE ORDERS, designs or SPECIFICATIONS.

25. SEPARATE CONTRACTS

25.1 The OWNER reserves the right to let other CONTRACTS in connection with this Project. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall properly connect and coordinate his WORK with theirs. If the proper execution or results of any part of the CONTRACTOR'S WORK depends upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the ENGINEER any defects in such WORK that render it unsuitable for such proper execution and results.

25.2 The OWNER may perform additional WORK related to the Project by himself, or he may let other CONTRACTS containing provisions similar to these. The CONTRACTOR will afford the other CONTRACTORS who are parties to such CONTRACTS (or the OWNER, if he is performing the additional WORK himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK, and shall properly connect and coordinate his WORK with theirs.

25.3 If the performance of additional WORK by other CONTRACTORS or the OWNER is not noted in the CONTRACT DOCUMENTS prior to the execution of the CONTRACT, WRITTEN NOTICE thereof shall be given to the CONTRACTOR prior to starting any such additional WORK. If the CONTRACTOR believes that the performance of such additional WORK by the OWNER or others involves him in additional expense or entitles him to an extension of the CONTRACT TIME, he may make a claim thereof as provided in "Changes in Contract Price" and "Time for Completion and Liquidated Damages."

26. SUBCONTRACTING

26.1 The CONTRACTOR may utilize the services of specialty

SUBCONTRACTORS on those parts of the WORK which, under normal contracting practices, are performed by specialty SUBCONTRACTORS.

- 26.2 The CONTRACTOR shall not award WORK to Subcontractor(s), in excess of fifty percent (50%) of the CONTRACT PRICE, without prior written approval of the OWNER.
- 26.3 The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of his SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.
- 26.4 The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the WORK to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the CONTRACT DOCUMENTS insofar as applicable to the WORK of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.
- 26.5 Nothing contained in this CONTRACT shall create any contractual relation between any Subcontractor and the OWNER.

27. ENGINEER'S AUTHORITY

- 27.1 The ENGINEER shall act as the OWNER'S representative during the construction period. He shall decide questions which may arise as to the quality and acceptability of materials furnished and WORK performed. He shall interpret the intent of the CONTRACT DOCUMENTS in a fair and unbiased manner. The ENGINEER will make visits to the site and determine if the WORK is proceeding in accordance with the CONTRACT DOCUMENTS.
- 27.2 The CONTRACTOR will be held strictly to the intent of the CONTRACT DOCUMENTS in regard to the quality of materials, workmanship and execution of the WORK. Inspections may be made at the factory or fabrication plant of the source of material supply.
- 27.3 The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.
- 27.4 The ENGINEER shall promptly make decisions relative to interpretation of the CONTRACT DOCUMENTS.

28. LAND AND RIGHTS-OF-WAY

- 28.1 Prior to issuance of Notice to Proceed, the OWNER shall obtain all land and rights-of-way for carrying out and for the completion of the WORK to be performed pursuant to the CONTRACT DOCUMENTS, unless otherwise mutually agreed.
- 28.2 The OWNER shall provide to the CONTRACTOR information which

delineates and describes the lands owned and rights-of-way acquired.

28.3 The CONTRACTOR shall provide at his own expense and without liability to the OWNER any additional land and access thereto that the CONTRACTOR may desire for temporary construction facilities, or for storage of materials.

29. GUARANTY

29.1 The CONTRACTOR shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year from the date of acceptance by the OWNER. The CONTRACTOR warrants and guarantees for a period of one (1) year from the date of acceptance of the system by the OWNER that the completed system is free from all defects due to faulty materials or workmanship and the CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The OWNER will give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR should fail, within reasonable promptness, to make such repairs, adjustments, or other WORK that may be made necessary by such defects, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred. The Performance BOND shall remain in full force and effect through the guarantee period.

30. ARBITRATION BY MUTUAL AGREEMENT

30.1 All claims, disputes, and other matters in question arising out of, or relative to, the CONTRACT DOCUMENTS or the breach thereof, except for claims which have been waived by making an acceptance of final payment as provided by Section 20, may be decided by arbitration if the parties mutually agree. Any AGREEMENT to arbitrate shall be specifically enforceable under the prevailing arbitration law. The award rendered by the arbitrators shall be final, and judgement may be entered upon in any court having jurisdiction thereof.

30.2 Notice of the request for arbitration shall be filed in writing with the other party to the CONTRACT DOCUMENTS and a copy shall be filed with the ENGINEER. Request for arbitration shall in no event be made on any claim, dispute, or other matter in question which would be barred by the applicable statute of limitations.

30.3 The CONTRACTOR will carry on the WORK and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed in writing.

31. TAXES

31.1 The CONTRACTOR will pay all sales, consumer, use, and other similar taxes required by the laws of the place where WORK is performed.

SPECIFICATIONS

TOWN OF RALEIGH

WATER WELL AND APPURTENANCES

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TOWN OF RALEIGH

WATER WELL AND APPURTENANCES

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SPECIFICATIONS

1.00 General Provisions

1.01 Scope of Work: The work to be performed under this contract consists of the construction of a gravel wall water well to provide 750 gallons per minute of potable water to the Owner's existing water system. The well is to be constructed for long life and maximum efficiency and is to operate on a fully automatic basis. All work is to be performed in strict accordance with these specifications, the construction drawings and regulations of governmental agencies having authority over this project.

1.02 Location of Work: The well is to be drilled on the Owner's site located on Firehouse Street in Smith County, Mississippi. The location of the well and appurtenant items within the site shall be selected by the Engineer.

1.03 Guarantees

a. Quantity: The Contractor shall guarantee that the well constructed under this contract shall produce 750 gallons per minute subject to the availability of an aquifer which will safely yield this quantity and that the well shall maintain said quantity for a period of one year after acceptance by the Owner. Should the Contractor determine that the aquifer is not sufficient to support the guaranteed quantity and the Engineer concur in this assessment, the Contractor shall be relieved of the guarantee provision and the Owner may:

1. Require the Contractor to extend the test hole to explore other aquifers with compensation for the additional test hole

made at the depth adjustment price contained in the bid or;

2. Authorize the construction of the well at a reduced guarantee with an equitable adjustment in contract price or;

3. Require the Contractor to backfill the test hole as provided for under the abandonment section of these specifications and to drill an additional test hole at a site to be provided by the Owner. The Contractor shall be paid for each test hole drilled under this option but will not be paid for the hole abandonment costs.

b. Efficiency: The Contractor shall guarantee the completed well will function at a minimum efficiency of 80%.

c. Mechanical: The Contractor shall guarantee all components of the well to be free of defects in workmanship and/or materials for a period of one year from the date of acceptance.

d. Quality: The Contractor shall be diligent in the pursuit of water of good chemical quality: however, it is understood and agreed that the Contractor extends no guarantee of chemical quality of water produced from the well constructed under this contract.

e. Biological: The Contractor shall guarantee the water to be produced from the well to meet the bacteriological requirements of the Mississippi State Department of Health at the time of acceptance.

f. Sand and Turbidity: The Contractor shall guarantee the water produced from the well to be free of objectionable quantities of sand and Contractor introduced turbidity for a period of one year from acceptance.

1.04 Project Abandonment: Should the Contractor declare that he

is unable to complete a well as required by the contract or as determined by the Engineer he may abandon the project under the following provisions:

- a. The Contractor shall fill all holes drilled under this contract with a mixture comprised of 7% bentonite and 93% cement grout, fill to be made from the bottom of the hole up using tremie pipes. Hole abandonment shall meet the requirements of the Mississippi State Department of Environmental Quality.
- b. The Contractor shall restore the site to original or better condition and remove all equipment;
- c. The Contractor shall refund all monies paid to him under the terms of the Contract and shall release all interest in any retainage due the Contractor for previous work;
- d. The Contractor shall furnish evidence of the discharge of all financial obligations relating to the contract.

Nothing in the abandonment process shall be construed to waive any of the obligations of Surety incurred prior to the abandonment declaration.

1.05 Submittal: Submittals shall be made for the purpose of determining general design conformance and/or for information as follows:

- a. Submittals for Approval:
 - 1.Design details of the well including depths and lengths of screen, casing, lap pipe;
 - 2.Gravel pack material including sieve analysis;
 - 3.Vertical turbine pump and appurtenant items;
 - 4.Electric details including schematics;
 - 5.Chlorination equipment and;

7. Any item of manufacture other than named.

b. Submittals for Information:

1. Geophysical logs;
2. Pumping tests:
3. Bacteriological samples.

All submittals shall be made in quadruplicate and shall be rendered in a timely manner to avoid impedance of the work progress.

1.06 Measurement and Payment:

a. The total bid price shall cover all work shown on the construction drawings and required by the specifications or other contract documents and no item that is required for the proper and successful completion of the work will be measured or paid for outside of or in addition to the prices submitted in the Bid. All work not specifically set forth as a pay item in the Bid shall be considered a subsidiary obligation of the Contractor and shall be included in the items set forth in the proposal.

b. The measurement and determination of quantities for each pay item will be made in general as prescribed herein and specifically as set out in the measurement and payment section for each pay item. Actual authorized quantities of work completed under the contract will be measured by the Engineer according to United States standard measures, and in accordance with recognized engineering practices.

c. The payment as herein provided includes full compensation for the complete work including all materials, labor, tools, equipment and incidentals necessary for performing the work contemplated and embraced under the contract; for all loss or damage arising out of the nature of the work; for all loss from the action of the elements; for any unforeseen

difficulties or obstruction of the work which may arise or be encountered during the prosecution of the work until the final acceptance by the Owner; and for completing the work in an acceptable manner according to Construction Drawings and Specifications.

2.00 Test Hole and Logs

2.01 General: This work shall consist of the drilling of a test hole to the base depth contained in the bid proposal or such depth as may be directed by the Engineer for the purpose of obtaining information on aquifers to be used for the well.

2.02 Drilling Water: Water to be used for drilling shall be furnished by the Owner at the well site at no cost to the Contractor.

2.03 Construction Requirements: The test holes shall not be less than 7 f" in diameter and shall be drilled to a reasonably plumb alignment. The driller shall maintain a visual log of all formations and materials encountered and note the character and depths of all changes of materials. Samples shall be collected from all potential aquifers. The samples shall be bagged, labeled and kept clean and separate from other materials at the surface. Samples shall be prepared and tested in accordance with ASTM D6913-04. Samples from the potential aquifer shall be run on standard sieve analysis utilizing U.S. Standard sieve sizes #12, #16, #20, #30, #40, #50, #70, #100 and #200 with the results submitted to the Engineer along with a copy of the driller's log. Upon completion of the test hole, the Contractor shall provide a multi-resistivity electric log and natural gamma log presented in standard API units. The logging shall be performed by a commercial firm acceptable to the Engineer. The test hole shall be used as a pilot hole for the permanent well or at the Contractor's option and expense be abandoned in accordance with the Abandonment section of these Specifications.

2.04 Measurement and Payment: The test hole shall be measured as a single lump sum item with a depth adjustment as contained in the bid proposal, adjusted to the bottom reading of the electric log. Payment will be made at the contract unit (lump sum) price

shown in the Bid plus or minus any adjustments based on the difference in measured depth and bid depth.

3.00 Gravel Wall Water Well

3.01 General: This item of work shall consist of the construction of one 16" X 10" gravel wall water well to provide 750 gallons per minute of potable water. The depth of the well shall be determined based on data collected from the test hole and on the Contractor's recommendation, subject to the approval of the Engineer.

3.02 Materials

a. Casing: Casing shall be new steel pipe with plain ends machine beveled for welding. The pipe shall conform to prime API-5L, Grade B or ASTM A53, Grade B. Minimum wall thickness shall be 0.375" and inside diameter shall be 16.0". The casing shall extend from within five feet of the screen to eighteen inches above the ground surface. The casing shall be equipped with centralizers with the first one located four feet above the bottom of the casing and then one centralizer every one hundred feet of casing. The casing shall be equipped with a two inch pipe as shown on the construction drawing to provide for water level measurements and casing ventilation.

b. Cement Grout: Cement grout shall be Portland Class A with a maximum of 8% gel additive. The cement shall be mixed with 10.4 gallons of water per sack of cement and shall have a minimum slurry weight of 13.1 pounds per gallon. The volume of the slurry shall be 1.92 cubic feet per sack of cement. The slurry shall be weighed with a standard mud balance and the slurry weight shall be maintained as specified during the cementing operation.

c. Well Screen: Well screen shall be type 304-18-8 stainless steel, continuous slot, wire wound design as manufactured by Johnson Division UOP or Houston Well Screen Company. The screen shall be plain end,

beveled for welding or threaded for coupling. The screen shall be 10" nominal pipe size diameter and shall not be less than fifty (50') in length. The screen slot size shall be selected on the basis of the sieve analysis of the gravel pack material. The maximum entrance velocity through the screen shall be 0.10 feet per second.

d. Gravel Pack: Gravel pack shall be graded, well rounded, properly sized as determined by the sand analysis of the formation material and shall have a uniformity coefficient of less than 1.5. Contractor shall submit to the Engineer before graveling the gradation and type of gravel recommended. The Engineer shall have the right to accept the Contractor's recommendation or to designate to the Contractor the gradation and type of gravel to be used.

e. Lap Pipe: Lap pipe shall be Grade B carbon steel material of the same nominal diameter as the well screen. The wall thickness of lap pipe shall be standard for the size used.

f. Back Pressure Valve: The back pressure valve shall be bronze, brass or stainless steel as approved by the Engineer.

3.03 Construction Requirements

a. Alignment: The well shall be sufficiently straight and plumb as to allow the operation of a vertical turbine pump and to meet the standards of AWWA.

b. Welding: Welding shall be done in accordance with the American Welding Society and the American Petroleum Institute specifications. All welding shall be done by qualified welders using rods compatible with casing materials. The casing shall be spaced and aligned before the first weld is made. A minimum of four aligning straps shall be used to align the casing or the Contractor may use aligning clamps. All welds shall be fully penetrating, that is, the entire

beveled and flat area must be filled with weld bead in multiple passes around the casing. Care must be taken to avoid burn through to prevent slag inclusion.

c. Grouting: After the hole and casing have been circulated with a reduced viscosity drilling fluids, the Contractor shall place a minimum of two and one half inches (2½") of cement grout around the outside of the casing using the standard Halliburton method. The Contractor shall maintain a reserve of twenty percent over the calculated volume of cement grout on location for washouts. Cement grout shall be allowed to set for a period of not less than twenty-four hours after which the plug may be drilled. After drilling of the plug, the drilling fluid shall be replaced or treated in such a manner to avoid cement contamination.

d. Underream: The area below the casing shall be reamed with a hydraulic underreamer to a diameter of sixteen inches (16") greater than the nominal size of the screen used. The underream shall extend for the entire length of the proposed screen and back pressure valve.

e. Screen Setting: The screen shall be attached to the lap pipe in a manner acceptable to the Engineer and telescoped into the well with a minimum of two guides placed on the screen and two guides placed on the lap pipe in order to center the screen into the casing a minimum distance of sixty feet (60').

f. Gravel Pack Installation: The Contractor shall place the gravel into the underream and extend the gravel to within five feet (5') of the top of the lap pipe. The Contractor shall disinfect the gravel as it is being placed with a water solution containing not less than fifty parts per million of free chlorine.

g. Development: The well is to be developed to insure long life and maximum efficiency by a method or methods acceptable to the Engineer. Not less than five parts per million of free chlorine shall be used

in water used for development. The development of the well shall continue until, in the opinion of the Engineer, the specific capacity of the well cannot be reasonably increased by additional development.

h. Test Pumping: Upon completion of the well development the Contractor shall furnish and install a temporary pump and perform a twenty-four (24) hour constant rate pumping test at the capacity specified in the bid form. The capacity during the test shall be measured by the Orifice Plate method and water level readings shall be measured by electric tape. Water level measurements shall be recorded in the pumped well during the pumping test and for six hours following the test in accordance with the following increments and frequencies:

<u>Time Since Pump Started or Stopped in Minutes</u>	<u>Interval Between Measurements in Minutes</u>
0-10	1
10-20	2
20-50	5
50-100	10
100-1440	60

Should the well efficiency be determined to be less than eighty percent (80%), the Contractor shall furnish additional development and testing at no additional compensation until the efficiency guarantee has been met to the satisfaction of the Engineer. The Contractor shall collect a sample of water from the well and shall have a chemical analysis run for pH (field), Alkalinity (Partial and total), chlorides, silica, sulfates, carbon dioxide, iron, magnesium, manganese, calcium, sodium, potassium, total dissolved residue, Ca+Mg hardness as CaCo3 by a laboratory acceptable to the Engineer.

3.04 Measurement and Payment: The well shall be measured a single lump sum item with a depth adjustment as contained in the bid proposal adjusted to the bottom depth of the well screen. Payment will be made at the contract unit (lump sum) price shown in the Bid plus or minus any adjustments based on the difference

in measured depth and bid depth.

4.00 Vertical Turbine Pump

4.01 General: The work shall consist of the provision and installation of a deep well vertical turbine pump complete and operating into the well constructed under this contract. The pump shall produce the guaranteed capacity of the well at the pressure contained in the bid proposal. The pump shall operate at a maximum of 1800 revolutions per minute.

4.02 Materials

a. Discharge Head: A suitable pump head of high grade cast iron ASTM A48, Class 30, shall be provided for mounting the motor and supporting the pump column, bowls and suction pipe. The above ground outlet shall be flanged, provided with a circular groove interfaced for square packing, and drilled to match eight inch (8") ANSI Class 150 cast iron flange connections. The discharge nozzle shall be constructed with a vertical vane for reduction of turbulence. Also, the discharge flange shall have a ¼ inch NPT connection for a pressure gauge. The design shall permit the drive shaft to be coupled above the stuffing box to facilitate easy removal and replacement of the driver. A cast iron tension box designed to maintain proper tension in the shaft tubing at all times when locked into position with hex head cap screws, shall be provided with a grooved bronze tension bearing. The pump head shall be equipped with separate cast iron base plate. A lubricator, operated by an electrical solenoid, sight drip feed, and a four (4) quart glass oil reservoir as manufactured by Essex Brass or approved equal shall be provided. The pump head shall be American Turbine Type HH60, Peabody Floway Type H, or approved equal.

b. Column Assembly: The discharge column to be furnished under these specifications shall be 8"X 2.5"X 1.5" minimum. The outer column shall be eight inch (8") steel ASTM A53, Grade A electric weld prime

line pipe. The discharge column shall be furnished in interchangeable sections ten or twenty feet (10' or 20') in length (with exception of the top and bottom sections which shall be 5') and shall be furnished with screwed ductile iron couplings. Each section shall be equipped with a cast or ductile iron alignment spider. Spiders shall be cast integral with coupling on threaded pipe. Each spider shall be faced parallel to permit the ends to butt against the machined faces on the column pipe. The pipe shall have the ends machined eight (8) threads per inch with a c inch taper and faced parallel to permit the ends to butt against the machined surfaces on the alignment spiders. Oil resistant synthetic rubber bushings shall be fitted in each alignment spider for stabilizing and supporting the oil tubing. The top column section shall be factory machined and fitted for connection to the pump head in a satisfactory manner so that no cutting or machine work in the field will be required to properly set the oil tubing. The "Drop-In", "Black Widow" type of aligning spiders shall not be acceptable except with flanged column. The length of column pipe shall be adequate to allow sixty feet (60') of pump submergence at twenty-four (24) hours operation at the guaranteed capacity.

c. Shaft Enclosing Tubing: The shaft enclosing tubing to be furnished under this specification shall be of sufficient diameter to provide adequate lubrication under any operating conditions. The enclosing tube shall be black ASTM A120, extra heavy weight, continuous weld, prime line pipe. Both ends of each tubing length shall be bored, faced, and inside threaded with a Class A thread. The ends of the tubing shall be square with the axis and shall butt to insure accurate alignment. The lengths shall be interchangeable with the exception of the top section which shall be designed for applying proper tension to the tubing. The interchangeable tubing shall be of such overall assembled length to properly match the length of the discharge column.

d. Line Shaft Bearings: The line shaft bearings which serve as couplings for the shaft tubing shall be

spaced at each tubing length to maintain alignment of pump shafting and to prevent excessive vibration. They shall be cast of continuous cast, bronze alloy, equivalent to ASTM B505 Alloy 836, machined, threaded and grooved for proper lubrication.

e. Line Shaft: The line shaft shall be of ASTM A108, Grade 1045 steel, ground and polished. It shall be of ample size to operate the pump without distortion or vibration and shall be capable of carrying the maximum horsepower that may be generated by the motor. The butting ends shall be machined, faced and recessed square to the axis of the shaft. The ends of the shaft shall be accurately machine threaded for connection. Shaft couplings shall be bored and threaded from solid ASTM A108, Grade B1112 or 12L14 steel bars designed with a safety factor of $1\frac{1}{2}$ times that of the shaft. The threads shall be left hand to tighten during pump operation. The couplings shall be without vent holes. The length of the shaft shall be such as to match properly the length of the discharge column.

f. Pump Bowl: Pump bowls, suction and discharge cases shall be of close grained cast iron equivalent to ASTM A48, Class 30, without imperfections. The bowl water passages shall be porcelain enamel coated to provide optimum performance and consistency of output. The suction case and intermediate bowls shall be fitted with replaceable wear rings of bronze, ASTM B505 Alloy 836. Wear rings shall have the minimum practical clearance to the mating cylindrical surface of the impeller to provide adequate sealing independent of vertical positioning of the impellers. Bowls and cases shall have bronze sleeve type bushings to support and guide the shaft. Bushing material shall be bronze, ASTM B505 Alloy 836. The suction case bearing shall be grease packed with provision for grease circulation from the reservoir in the suction case hub. A sand collar of rubber or bronze, ASTM B505 Alloy 836 shall be provided to protect the suction case bearing from abrasives in the liquid pumped. The discharge case shall have vanes to

deliver the flow of water with minimum turbulence. The intermediate stages shall be selected to provide the maximum efficiency with least number of stages. Impeller shall be the enclosed type, cast of bronze, ASTM B584 Alloy 836, accurately cast, machined, balanced and filed for optimum performance and minimum vibration. The design shall be non-overloading for the capacity of the motor selected. The impeller shall be securely fastened to the bowl shaft with taper collets of ASTM A582, Grade 416 stainless steel. Bowl shaft shall be of sufficient diameter to transmit the pump horsepower with a liberal safety factor and rigidly support the impellers between the bowl or case bearings. The bowl shaft material shall be high chrome stainless steel of ASTM A276, Grade 410. The pump bowl shall be American Turbine Model 12-M-70 or approved equal. The pump bowl shall have a minimum operating efficiency of eighty five percent (85%) at the guaranteed capacity operating at the pressure contained in the Bid Proposal.

g. Suction Pipe: The Contractor shall furnish with the pumping unit, a minimum of a 10 foot section of black steel, ASTM A53, Grade B suction pipe threaded for attaching to the pump. The diameter of the suction pipe will be nominal size of the column pipe and the wall thickness shall be API Standard.

h. Pump Head Foundation: The pump head shall be mounted on a chamfered concrete foundation, not smaller than 42" square at the top, extending from not less than 18" into solid ground and to not less than 18" above the finished grade.

i. Air line: A stainless steel air line will be furnished from the pump bowl to the pump head together with valve and gauge to enable water level readings in the well. The air line shall be attached to the pump column with stainless steel bands or straps at intervals not to exceed ten feet. The gauge shall be four inch (4") diameter and shall read in both feet and psi.

4.03 Testing

a. Pump Test: The Contractor shall conduct a continuous four hour pumping test of the permanent pump at the guaranteed capacity and specified pressure while recording the water level in the well at intervals specified under the well test section of these specifications. The capacity shall be measured by orifice plate and water level readings shall be measured by electric tape. The Contractor shall also conduct a graduated pressure test on the pump from closed valve (shut-in) to open discharge at ten pound increments.

b. Bacteriological Test: During or upon completion of the pumping test and disinfection the well shall be pumped and redisinfectant as necessary until two consecutive chlorine free water samples are collected from the well which show no coliform bacteria and no confluent growth. The second sample shall be collected following at least two hours of pumping with no disinfectant applied between samples. The samples shall be collected, submitted and analyzed according to Mississippi State Department of Health requirements. The person collecting the sample must be a representative of the Mississippi State Department of Health, a certified operator, or the Engineer.

4.04 Measurement and Payment: Vertical Turbine Pump will be measured as a single lump sum item, installed, complete in place and accepted in accordance with these Specifications. Payment will be made at the contract unit (lump sum) price shown in the Bid.

5.00 Electrical

5.01 General: This work shall consists of all electrical necessary or incidental to the starting and operation of the electric motor for driving the well, chlorinator booster pump, and chemical feed building lighting. Three phase power will be supplied at an automatic transfer switch to be furnished by the Owner within the site. A signal cable from the elevated tank

probes panel will be furnished to the well site by the Owner.

5.02 Materials

a. Motor: The electric driver for the pump shall be a 200 horsepower (minimum), 480 volt, 3 phase, 60 Hertz, 1800 rpm electric motor having a 40EC ambient temperature and a 1.15 service factor. The motor shall be U.S. Motors weather protected, type 1, Code F, vertical hollowshaft or approved equal with low starting current and shall be equipped with a non reverse ratchet. The motor shall be sized so that no load on the pump curve exceeds the nameplate rating.

b. Starter: The starter shall be a combination circuit breaker/65% reduced voltage auto transformer starter mounted in a NEMA 3R enclosure with a "Manual-Off-Automatic" selector switch wired for automatic operation from a remote control switch. The starter shall have an adjustable time delay switch. Run time meters shall be installed in the panel.

c. Lightning and Phase Protection: Lightning and phase protection will be provided. The phase protection relay shall monitor against phase failure, phase reversal and phase imbalance. The relay shall have automatic reset and adjustable dropout time.

d. Wiring: All power and control wires shall be stranded copper with insulation type THHN and shall be marked at each end using self adhering wire markers. Above ground wires shall be in metal conduit and below ground shall be in metal or PVC conduit.

e. Controls: The well constructed under this contract shall operate automatically based on the water level in the existing offsite elevated tank. The chlorination equipment shall operate simultaneously with the well.

5.03 Construction Requirements: All work shall be performed by the requirements of the National Electrical Code and by local ordinance where applicable.

5.04 Measurement and Payment: Electrical will be measured as a single lump sum item, installed, complete in place, and accepted in accordance with these Specifications. Payment will be made at the contract unit (lump sum) price shown in the Bid.

6.00 Yard Piping

6.01 General: This work shall consist of the pipe, valves, fittings, and other items as shown on the Construction Drawings from the pump discharge head to the terminal point shown in the plans.

6.02 Materials

a. Pipe: Above ground pipe shall be flanged ductile iron or schedule 40 steel. Below ground pipe shall be ductile iron except where specifically noted as PVC. PVC pipe shall be 160 psi and NSF approved.

b. Check Valve: The check valve shall be Mueller Co. Model A-2602-8-01 or approved equal.

c. Gate Valve: Gate Valves shall be standard AWWA non rising stem, Mueller Co. Model A-2380-8 or approved equal with handwheels.

d. Master Meter: Master meters shall be the propeller type, Water Specialties Corporation Model ML-04 or approved equal with units in gallons.

e. Fittings: Fittings shall be flanged steel or ductile iron above ground and restrained mechanical joint by push on ductile iron below ground.

f. Insulation: Above ground piping shall be insulated with one inch (1") of Pittsburg-Corning "Foam Glass" or approved equal covered with aluminum.

g. Air Release Valve: The air release valve shall be two inch (2") minimum, Crispin Model D20 or approved equal. The air shall be vented away from the valve with a four foot

section of 4" PVC pipe.

6.03 Construction Requirements: Concrete support blocks and adjustable pipe jacks will be installed as shown on the Construction Drawings. Concrete thrust blocks or restrained joints shall be used on fittings.

6.04 Measurement and Payment: Yard Piping will be measured as a single lump sum item, installed, complete in place, and accepted in accordance with these Specifications. Payment will be made at the contract unit (lump sum) price shown in the Bid.

7.00 Chlorination Equipment

7.01 General: This work shall consist of a gas chlorinator together with appurtenances to provide automatic chlorination of water produced by the well constructed under this contract. The Owner will provide two (2) 150 pound cylinders of chlorine to the site.

7.02 Materials

a. Chlorinator: The chlorinator heads shall be Advance Model 481C5 or Hydro Model 502 with a feed rate of 100 pounds per day.

b. Ejector: The ejector shall be as recommended by the chlorinator manufacturer.

c. Booster Pump: The booster pump shall be as recommended by the chlorinator manufacturer for the capacity of the chlorinator at the pressure indicated for the well pump.

d. House: The chlorinator house shall be a two compartment fiberglass cabinet suitably mounted on a concrete slab. The house shall have all stainless steel hardware. The house shall be similar and equal to Coast Chlorinator Model CC-4X4.

7.03 Construction Requirements: The Contractor shall furnish and install the chlorination equipment, piping, wiring, controls and

appurtenant items as shown on the Construction Drawings or as required for the automatic operation of the chlorination equipment.

7.04 Measurement and Payment: Chlorination equipment will be measured as a single lump sum item installed complete in place and accepted in accordance with these Specifications. Payment will be made at the contract unit (lump sum) price shown in the bid.

8.00 Site Restoration

8.01 General: This work shall consist of the clean-up and restoration of the site to a condition equal to the original condition.

8.02 Measurement and Payment: No measurement for site restoration will be made. No payment will be made for this item of work.

9.00 **Final Acceptance:** Upon receipt of notice from the Contractor of presumptive completion of all work and a request for final payment the Engineer will make an inspection. If all work provided by the Contract has been completed to the Engineer's satisfaction the Engineer will notify the Owner of completion. Upon evidence that the Contractor has fulfilled all obligations under the Contract, the Owner will make final acceptance and payment. If the inspection discloses any work as being unsatisfactory or incomplete, the Engineer will notify the Contractor as to the discrepancies found. Upon correction of the work another inspection will be made.