

KINGFISHER COUNTY COMMISSIONERS

Jeff Moss, District 1 Mike Sparks, District 2 **Anthony Schwarz District 3** Phone: (405) 375-3808 Fax: (405) 375-2366

Kingfisher County Courthouse 101 S. Main, Room #9 Kingfisher, OK 73750

April 7, 2025

Bid #15-24-25

NOTICE TO BIDDERS

Notice is hereby given that the Board of County Commissioners of Kingfisher County will receive sealed bids for labor and materials for the Rural Water District (RWD) #3 Kingfisher County water line replacement. 12,490 L.F. 6" PVC CL 200 Complete in Place, 5 - 6" Gate Valves, 2 - Connections to Existing Water Lines, 500 L.F. Directional Bore for Creek Crossings, 90 L.F. Road Bores and Casing 14 - connections to existing meters, 500 L.F. PE DR 11 for Creek Crossing, 1 Fire Hydrant and Valve and all appurtenances in accordance with the plans and specifications. Bids will be accepted at the Kingfisher County Courthouse in the Office of the County Clerk until 4:00pm on the 25th day of April, 2025 to be opened at their regular meeting of April 28th, 2025.

Statement of Work and Specifications of the project to be bid are included in the bid packet and also available from the purchasing agent located in the Kingfisher County Clerk's office and the County Engineer's office.

The successful bidder is required to produce a performance bond upon request and to show certificates of Insurance, its limits, and Workers Compensation Insurance. This will be detailed in the Statement of Work and general requirements.

The Board of County Commissioners reserves the right to reject any or all bids. All bidders must complete a statement of non-collusion, a business relationship affidavit and a cashier's check, a certified check, or a surety bid bond in the amount of five percent (5%) of the gross amount of base bid as a guaranty, shall accompany the sealed proposal of each bidder. Deposits will be returned to the unsuccessful bidders and successful bidders, upon approval of the contract and submission of a 100% Performance Bond, a 100% Statutory Bond, and a 100% Maintenance Bond. Please contact Kingfisher County Clerk's office for bid results at 405-375-3887.

Board of County Commissioners Kingfisher County Courthouse Kingfisher, Oklahoma

CHAIRMAN: <u>Char Mary</u> Anthony Schwarz

MEMBER: Jeff Moss

MEMBER:

ATTEST

COUNTY CLERK



KINGFISHER COUNTY COMMISSIONERS

Jeff Moss, District 1 Mike Sparks, District 2 Anthony Schwarz District 3 Phone: (405) 375-3808 Fax: (405) 375-2366 Kingfisher County Courthouse 101 S. Main, Room #9 Kingfisher, OK 73750

Vendor List

Sooner Site Services LLC 634 S 122nd E Ave Tulsa, OK 74146 (918) 284-1197

Basin Environmental & Safety Technologies 1117 NW 24th St #108 Oklahoma City, OK 73106 (405) 232-5737

Lonehickory Cattle LLC 5433 SE 235th Rd Talihina, OK 74571 (918) 429-4815

Marsau Enterprises Inc 1209 N 30th St Enid, OK 73701 (580) 233-3910

WEB Construction Inc. 1709 SW 33RD St Moore, OK 73160 (405) 799-3774

Orr Construction, Inc. 1145 S Main St Hennessey, OK 73742

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ADVERTISEMENT FOR BIDS

Kingfisher County RWD #3

Owner

405/375-3820

Telephone

101 S. Main St.

Address King Salar OK 7

Kingfisher, OK 73750

Address

Separate sealed BIDS for the construction of:

12,490 L.F. 6" PVC CL 200 Complete in Place, 5 - 6" Gate Valves, 2 - Connections to Existing
Water Lines, 500 L.F. Directional Bore for Creek Crossings, 90 L.F. Road Bores and Casing
14 - connections to existing meters, 500 L.F. PE DR 11 for Creek Crossing, 1 Fire Hydrant and
Valve and all appurtenances

will be received by <u>Kingfisher County for Kingfisher County RWD #</u> at the office of <u>Kingfisher County</u> until <u>4:00</u> pm, CST on the <u>25th</u> day of <u>April</u> 2025. or may be delivered until <u>4:00</u> pm at the office of Kingfisher County at the County Courthouse, 101 S. Main St., Kingfisher, OK <u>73750</u>. Bids will be publicly opened and read aloud at the Kingfisher County Commissioner meeting on April <u>28th</u> at <u>9:00</u> am.

SMALL BUSINESS AND MINORITY BUSINESS Sources ARE ENCOURAGED TO BID ON THIS PROJECT.

IMPORTANT - SECURITY COMPANIES EXECUTING BONDS MUST APPEAR ON THE TREASURY DEPARTMENTS MOST CURRENT LIST AND BE AUTHORIZED TO TRANSACT BUSINESS IN THE STATE WHERE THE PROJECT IS LOCATED.

The CONTRACT DOCUMENTS may be examined at the following locations:

Brown Engineering,	3916 West Lakeview,	Stillwater, OK,	405/372-4848
Kingfisher County RV	VD #3		
Southwest Construction	on News and Construct	Connect	

Copies of the CONTRACT DOCUMENTS may be obtained at the office of: <u>Brown Engineering</u> located at <u>mailing address: P.O. Box 579 Stillwater, OK 74076 (405)372-4848</u> upon payment of <u>\$200.00</u> for each set or <u>\$50.00</u> for each digital set. Any BIDDER, upon returning the CONTRACT DOCUMENTS after bids are opened and in good condition, and any non-bidder upon so returning the CONTRACT DOCUMENTS will be refunded <u>\$0.00</u>.

March 18, 2025	/s/ Francis Nault		
Date	Signature		
	Chairman		
	Title	_	

INFORMATION FOR BIDDERS

BIDS will be received by <u>Kingfisher County</u> (hereinafter called the "OWNER"), at <u>Kingfisher County Courthouse, 101 S. Main St., Kingfisher, OK 73750</u> until <u>4:00 pm April 25, 2025</u> or be hand delivered to <u>the office of Kingfisher County at Kingfisher County Courthouse, 101 S.</u> <u>Main St., Kingfisher, OK 73750</u> until <u>4:00 pm April 15, 2025</u> and Bids will be publicly opened and read aloud at the Kingfisher County Commissioner meeting on April 28th at 9:00 am.

Each BID must be submitted in sealed envelope, addressed to: <u>Kingfisher County RWD #3</u>, <u>Inc at Kingfisher County Courthouse, 101 S. Main St., Kingfisher, OK 73750</u>. Each sealed envelope containing a BID must be plainly marked on the outside as BID for either <u>Water Line Replacement</u> <u>Improvements</u> and the envelope should bear on the outside the BIDDER'S name, address, and license number if applicable, 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 to the OWNER at <u>101 S. Main St., Kingfisher, OK 73750</u>.

All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be fully completed and executed when submitted. Only one Copy of the BID form is required.

The OWNER may waive any informalities or minor defects or reject any and all BIDS. Any BID may be withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Bids received more than ninety-six (96) hours before time specified and Bids received after the time set for opening Bids will not be considered and will be returned unopened. No BIDDER may withdraw a BID within 60 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the BIDDER.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the BID schedule by examination of the site and a review of the drawings and specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

The OWNER shall provide to BIDDERS prior to BIDDING, all information which is pertinent to, and delineates and describes, the land owned and rights-of-way acquired or to be acquired.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PRODUCT. Information obtained from an officer, agent, or employee of the OWNER or any other

person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve the contractor from fulfilling any of the conditions of the contract.

Each bid must be accompanied by a bid bond payable to the OWNER for five percent of the total amount of the bid. A certified check may be used in lieu of the bid bond. No bid security is required if bid is \$7,500.00 or less. As soon as the bid prices have been compared, the OWNER will return the bonds of all except the three lowest responsible bidders. The bid bond of the successful bidder will be retained until the Performance Bond, Statutory Bond, Maintenance Bond, and Certificate of Insurance have been executed and approved, after which it will be returned. The bid security of the two remaining unsuccessful Bidders will be returned after the successful bidder has entered into a contract and has furnished the required bonds and insurance.

A Performance Bond, Statutory Bond and Maintenance Bond each in the amount of 100 percent of the Contract Price with a corporate surety approved by the OWNER will be required for the faithful performance of the Contract.

Attorneys-in-fact who sign Bid Bonds and Performance Bonds must file with each Bond a certified and effective dated Copy of their Power-of-Attorney.

The OWNER shall award a contract to the lowest responsible bidder or bidders within sixty (60) calendar days after bid opening. The OWNER may extend the award period not to exceed fifteen (15) calendar days by formal recorded action and for good cause.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the Performance Bond, Statutory Bond, Maintenance Bond and Certificate of Insurance within ten (10) calendar days from the date when Notice of Award is delivered to the Bidder. The Notice of Award shall be accompanied by the necessary Agreement and Bond forms. In the of failure of the Bidder to execute the Agreement, the OWNER may consider the Bidder in default in which case the Bid Bond accompanying the proposal shall become the property of the OWNER.

The OWNER within ten (10) calendar days of receipt of acceptable Agreement, Bonds and Certificate of Insurance signed by the party to whom the Agreement was awarded shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may by WRITTEN NOTICE withdraw the signed Agreement. Such NOTICE of withdrawal shall be effective upon receipt of the nOTICE by the OWNER.

The NOTICE to Proceed shall be issued by the OWNER within ten (10) calendar days of the execution of the Agreement, approval of Bonds and approval of the Certificate of Insurance. Should there be reasons why the NOTICE to Proceed cannot be issued within such period, the time may be extended by mutual agreement between the OWNER AND CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The OWNER may make such investigations as deemed 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 may request. 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 AGREEMENT and to complete the WORK contemplated therein.

A conditional or qualified BID will not be accepted. An unbalanced bid (any unit price that does not cover the cost of materials as determined by the Engineer) may be determined as a qualified bid by the OWNER and rejected at the option of the OWNER.

Award will be made to the lowest responsible BIDDER.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to its BID.

The successful bidder will be required to meet all requirements of the Underground Facilities Damage Prevention Act when engaged in work within public rights-of-way.

When alternate BIDS are taken, they will be listed in numerical order with the highest priority being number one, second, number two, etc.

When alternates are used, the low BIDDERS will be selected by the lowest and best BID considering all BIDS which include the selected alternate BIDS.

The alternates will be listed in consecutive priority order to remain within the funds available for the project.

The low BIDDER shall supply the names and addresses of major material SUPPLIERS and SUBCONTRACTORS when required to do so by the OWNER.

Inspection trips for prospective BIDDERS will leave from the

N/A	at	
The Engineer is:	Brown Engineering, P.C.	
The Engineer's address and phone number is	P.O. Box 579, Stillwater, OK 74076	
	405/ 372-4848	
The Engineer's contact person is	Mike Brown	

BID PROPOSAL

Proposal of ______ (hereinafter called "BIDDER"), organized and existing under the laws of the State of <u>Oklahoma</u> doing business as" _______*. To the <u>Kingfisher County RWD #3</u> (hereinafter called "OWNER").

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all MATERIALS for the construction of:

12,490 L.F. 6" PVC CL 200 Complete in Place, 5 - 6" Gate Valves, 2 - Connections to Existing
Water Lines, 500 L.F. Directional Bore for Creek Crossings, 90 L.F. Road Bores and Casing
14 - connections to existing meters, 500 L.F. PE DR 11 for Creek Crossing, 1 Fire Hydrant and
Valve and all appurtenances

in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this BID, each BIDDER certifies, and in the case of a joint BID each party thereto certifies as to its own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

BIDDER hereby agrees to commence WORK under this contract within ten (10) calendar days of the date to be specified in the NOTICE TO PROCEED and to fully complete the PROJECT within <u>60</u> consecutive calendar days thereafter. BIDDER further agrees to pay as liquidated damages, the sum of <u>\$500.00</u> for each consecutive calendar day thereafter as provided in Standard Requirements.

No BIDDER may withdraw a BID within 60 days after the actual opening thereof. Each BID must be accompanied by a BID BOND payable to OWNER for 5% of the amount bid.

BIDDER acknowledges receipt of the following ADDENDUM: _____

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the unit prices or lump sum given in the Bid Schedule.

^{*} Insert "a corporation", "a partnership", or "an individual" as applicable

BID SCHEDULE

NO.	DESCRIPTIO	DN	UNIT OF MEASURE	QUANTITY	UNIT PRICE	TOTAL PRICE
1	6" PVC CL 2	00 Complete in Place	L.F.	12,490		
2	6" PE DR 11	Complete in Place	L.F.	500		
3	6" Gate Valve	es	Each	5		
4	Connection to	Existing Water Lines	Each	2		
5	Directional B	ore for Creek Crossing	L.F.	500		
6	Bore & Case	for Road Crossing	L.F.	90		·
7	Connection to	Ex. Meter	Each	14		
8	Fire Hydrant a	and Valve	Each	1		
	Total Bid					
Total Respec	Bid in Words	 1,				
By:		(Signature)				
Firm N	Jame:	(Print or Type)				i
Title:		(Print or Type)				
Addres	55:	(Print or Type)				
Emplo	yer I.D. No.	(Print or Type)				
Teleph	one No.	(Print or Type)				
ATTE	ST:					
Secreta	ary/Witness	(Signature)				
Date:	:					

(SEAL) - If BID is by a corporation

BUSINESS RELATIONSHIP AFFIDAVIT

STATE OF OKLAHOMA)	
)	SS.
COUNTY OF)	

______, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any partnership, joint venture, or other business relationship presently in effect or which existed within one (l) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect or which existed within one (l) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

(If none of the business relationships herein above mentioned exist, affiant should so state.)

Subscribed and sworn to before me this ____ day of _____, ____,

My Commission Expires: _____

Notary Public

NOTE: This form is to be submitted with the BID.

NONCOLLUSION AFFIDAVIT

STATE OF OKLAHOMA)) ss. COUNTY OF _____)

, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any state official or employee as to quantity, quality or price in the prospective contract, or any other terms of said prospective contract; or in any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

SUBSCRIBED AND SWORN to before me this ____ day of _____, ____.

Notary Public

My Commission Expires:

NOTE: This form is to be submitted with the BID.

PAYROLL AFFIDAVIT

I ______, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that (s)he has submitted the required payroll information to the State Department of Labor. Affiant further states that (s)he is in compliance with the requirements of Title 40 O.S., 1981, Sections 196.1 through 196.12 and any amendments thereto.

SIGNATURE

Subscribed and sworn to before me this _____ day of ______,

NOTARY PUBLIC

My Commission Expires: _____

NOTE: This form is to be submitted with the bid.

CLAIM OR INVOICE AFFIDAVIT

STATE OF OKLAHOMA)	
)	SS.
COUNTY OF)	

The undersigned (engineer or supervisory official), of lawful age, being first duly sworn, on oath says that this (invoice, claim, or contract) is true and correct. Affiant further states that the (work, services or materials) as shown by this invoice or claim have been (completed or supplied) in accordance with the plans, specifications, orders, or requests furnished to the affiant. Affiant further states that (s)he has made no payment, given, or donated or agreed to pay, give, or donate, either directly or indirectly, to any elected official, officer, or employee of the State of Oklahoma, of money or any other thing of value to obtain payment or the award of this contract.

Engineer or Other Supervisory Official

Subscribed and sworn to before me this _____ day of _____, ____,

Notary Public

My Commission Expires:

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, ______as Principal, and ______as Surety, are hereby held firmly bound unto ______as OWNER in the penal sum of _______bound unto ______as OWNER in the penal sum of _______as OWNER in the penal sum of _______bind ourselves, successors and assigns.

12,490 L.F. 6" PVC CL 200 Complete in Place, 5 - 6" Gate Valves, 2 - Connections to Existing
Water Lines, 500 L.F. Directional Bore for Creek Crossings, 90 L.F. Road Bores and Casing
14 - connections to existing meters, 500 L.F. PE DR 11 for Creek Crossing, 1 Fire Hydrant and

hereto and hereby made a part hereof to enter into a contract in writing, for the:

Valve and all appurtenances

NOW, THEREFORE,

(a) If said BID shall be rejected, or

____(L.S.)

(b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attachment hereto (properly completed in accordance with said BID) and shall furnish a BOND for faithful performance of said contract, and for the payment of all persons performing labor furnishings 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.

Principal

ATTEST: (if by Corporation)

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 of Oklahoma.

AGREEMENT

THIS AGREEMENT, made this _____ day of ______, 2025 between <u>Kingfisher County RWD</u> <u>#3</u>, hereinafter called "OWNER" and ______ doing business as (a partnership) or (a corporation) (an individual) hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of:

12,490 L.F. 6" PVC CL 200 Complete in Place, 5 - 6" Gate Valves, 2 - Connections to Existing
Water Lines, 500 L.F. Directional Bore for Creek Crossings, 90 L.F. Road Bores and Casing
14 - connections to existing meters, 500 L.F. PE DR 11 for Creek Crossing, 1 Fire Hydrant and
Valve and all appurtenances

2. The CONTRACTOR will furnish all of the materials, 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 <u>10</u> calendar days after the date of the NOTICE TO PROCEED and will complete the same within <u>60</u> calendar days unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.

4. The CONTRACTOR agrees to perform all the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of <u>\$____</u> or as shown in the BID SCHEDULE.

5. The term "CONTRACT DOCUMENTS" means and includes the following:

- (A) Advertisement for Bids
- (B) Information for Bidders
- © Bid Proposal
- (D) Bid Schedule
- (E) Business Relationships Affidavit
- (F) Noncollusion Affidavit
- (G) Bid Bond
- (H) Agreement
- (I) Standard Requirements
- (J) Statutory Bond
- (K) Performance Bond
- (L) Maintenance Bond
- (M) Certificate of Insurance
- (N) Notice of Award
- (O) Notice to Proceed
- (P) Change Order
- (Q) Drawings prepared by Brown Engineering Numbers 1 through 6, and dated March 2025
- ® Specifications prepared or issued by <u>Brown Engineering dated March</u> 2025

(S) ADDENDA:

No.	, dated	
No.	, dated	

6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the Standard Requirements 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.

8. It is understood that the following are also required of the Contractor in performance of this contract:

- a. Liquidated damages for failure to complete the work within the time specified shall be assessed at the rate of \$75.00 per day for each additional calendar day until the work is completed for Contract.
- b. Contractor shall comply with the Underground Facilities Damage Prevention Act (63 O.S. 42.1 et seq.).

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

		Owner:	Kingfisher County RWD #3
			(Print or Type)
		By:	
			(Signature)
		Name:	
		rume.	(Print or Type)
		Titles	Chairman
		I itie:	(Print or Type)
			(
SEAL)			
ATTEST:			
By:			
	(Signature)		
Vame:			
	(Print or Type)		
Inte:	(Print or Type)		
	(and or appe)		
		CONTRACTOR:	
			(Print or Type)
		By:	
			(Signature)
		Name:	
			(Print or Type)
		Address:	
			(Print or Tune)
			(1111.0) 13403
		Telephone:	
SEAL)			
TTEST:			
₹v.			
	(Signature)		
T			
name:	(Print or Type)	<u>.</u>	
	(come or cylio)		
Title:			
	(Print or Type)		

PERFORMANCE 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)
have instead of WAIED and the State of Ohishama active threads the Ohishama Weter D
Board hereinafter referred to as the GOVERNMENT in the total aggregate penal sum of
/100Dollars (\$) 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, a copy of which is hereto
attached and made a part hereof for the construction of:
12,490 L.F. 6" PVC CL 200 Complete in Place, 5 - 6" Gate Valves, 2 - Connections to Existing
Water Lines, 500 L.F. Directional Bore for Creek Crossings, 90 L.F. Road Bores and Casing
14 - connections to existing meters, 500 L.F. PE DR 11 for Creek Crossing, 1 Fire Hydrant and
Valve and all appurtenances

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 if

the PRINCIPAL shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save 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 20 percent, 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 _____ counterparts, each which shall be deemed an original, this the _____ day of _____.

ATTEST:

By:		Principal	
	(Signature)		(Print or Type)
Name:		By:	
	(Print or Type)		(Signature)
Title:		Name:	
	(Print or Type)		(Print or Type)
(SEAL)		Title:	
			(Print or Type)
ATTEST:			
By:		Surety:	
	Signature		(Print or Type)
Name:		By:	
	(Print or Type)		Surety's Agent (Signature)
		Name:	
		-	(Print or Type)
		By:	
			Attorney-in-Fact (Signature)
		Name:	
		1	(Print or Type)

NOTE: Date of bond must not be prior to date of contract. If contractor is partnership, all partners should execute bond.

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 of Oklahoma. Attach a certified Copy of the Power of Attorney.

STATUTORY BOND

KNOW ALL MEN BY THESE PRESENTS:

That we,	as Principal, and	a Corporation
organized under laws of	, as Surety,	are held and firmly bound unto the
State of Oklahoma, in the amount of	·	Dollars
(<u>\$</u>) for th	e payment of which we hereby bin	nd ourselves, our heirs, executors,
administrators, successors, and assig	ns, jointly and severally, firmly by	these presents.
Dated		,
Whereas, the said	did on _	enter into
a certain contract with <u>New Prue PV</u>	<u>WA</u> for construction of :	
12,490 L.F. 6" PVC CL 200 Complete i	in Place, 5 - 6" Gate Valves, 2 - Conn	ections to Existing
Water Lines, 500 L.F. Directional Bore	for Creek Crossings, 90 L.F. Road B	ores and Casing
14 - connections to existing meters, 500	L.F. PE DR 11 for Creek Crossing,	1 Fire Hydrant and
Valve and all appurtenances		

WHEREAS, this bond is given in compliance with OKLAHOMA STATUTES ANNOTATED, 1941, Title 61, Sections 1 and 2, as amended.

NOW THEREFORE, the condition of the above obligation is such, that if the Principal shall pay all indebtedness incurred for labor or material or rental of machinery or equipment furnished in the construction of said public building or in making said public improvements, then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, we have hereunto set our hands and seals the day first written above.

By:	
	Surety's Agent (Signature)
Name:	
	(Print or Type)
By:	
	Attorney-in-Fact (Signature)
Name:	
	(Print or Type)

NOTE: Attach a certified copy of the Power of Attorney.

MAINTENANCE BOND

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That _____

	(Contractor)	
of	, as Principal, and	as Surety, are
jointly and severally, fir	mly held and bound unto the Kingfisher Coun	ty RWD #3 (hereinafter "OWNER")
in the sum of		/100Dollars
(\$), lawful money of the Unite	d States of America, same being the
approximate cost of the	Contract herein referred to, for the payment of	which sum well and truly to be made,
we hereby bind ourselve	s, our heirs, executors, administrators, success	ors and assigns, jointly and severally,
firmly by these presents		

(Address)

that the said Principal and Surety shall jointly and severally be liable to the <u>Kingfisher County RWD #3</u> for the costs and expenses of making such repairs or backfills, or making good defects or imperfections.

NOW, THEREFORE, if the said Principal and surety shall faithfully and securely keep and perform all of the obligations herein provided to be kept and performed by them, or either of them, then this obligation shall be null and void and of no force and effect, otherwise to be and remain in full force and effect at all times.

Signed, sealed and delivered this _____ day of _____, ____.

ATTEST:

By:		Principal	
	(Signature)		(Print or Type)
Name:		By:	
	(Print or Type)		(Signature)
Title:		Name:	
	(Print or Type)		(Print or Type)
(SEAL)		Title:	
			(Print or Type)
ATTEST:			
By:		Surety:	
	Signature		(Print or Type)
Name:		By:	
	(Print or Type)		Surety's Agent (Signature)
		Name:	
			(Print or Type)
		By:	
			Attorney-in-Fact (Signature)
		Name:	
			(Print or Type)

NOTE: Date of bond must not be prior to date of contract. If contractor is partnership, all partners should execute bond.

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 of Oklahoma. Attach a certified Copy of the Power of Attorney.

STANDARD REQUIREMENTS

1. Filling in Bid Proposal Form

Each proposal shall be made on the forms accompanying these instructions, and all blank spaces in the form shall be filled, numbers shall be stated both in writing where applicable and in figures, the signatures shall be in longhand and the completed form shall be without interlineation, alteration or erasure.

Proposals shall not contain any recapitulation of work to be done.

Proposals shall be addressed to and delivered to the Owner at the address given in the "Information for Bidders" enclosed in a sealed opaque envelope. Place on the envelope the name of bidder, project name, project number (if given) and date of bid opening. Bidders shall acknowledge addendums including dates, if any.

Bids received more than ninety-six (96) hours before bid opening as well as bids received after the time set for opening bids, will not be considered and will be returned unopened.

2. <u>Alternates</u>

Bidder shall state in his proposal the amount to be deducted from or added to the basic bid, for all alternates as specified in the specifications.

3. Bid Security to be Furnished by Each Bidder with His Bid

Each proposal must be accompanied by a certified check or a bid bond in an amount equal to 5% of the total amount of the proposal as guarantee that, if awarded the contract, the bidder will execute the contract and furnish bonds and insurance as required in these Standard Requirements. The successful bidder's check or bid bond will be retained until (s)he has entered into a satisfactory contract and furnished bonds and insurance as required in these Standard Requirements. The Owner reserves the right to hold the bid security of the three lowest bidders until the successful bidder has entered into a contract and has furnished the required bonds and insurance. No Bid Security is required if bid is \$7,500.00, or less.

Should the successful bidder fail to enter into a contract and furnish the required bonds and insurance within ten (10) calendar days after the contract has been awarded, then there shall be forfeited to the Owner the cost of republication of notice to bidders, all actual expenses incurred by reason of bidder's default and the difference between the low bid of the defaulting bidder and the amount of the bid of the bidder whom the contract is subsequently awarded, but not to exceed the amount of said check or bond.

4. Scope of Work

The work contemplated under this contract includes all labor, materials, transportation, equipment and service necessary for, and reasonably incidental to the completion of all construction and mechanical work in connection with the project described in the specifications and the accompanying drawing(s).

Special Notice

The competency and responsibility of bidders and of their proposed subcontractors will be considered in making the award. The Owner reserves the right to reject any or all bids, and at its discretion, to waive any irregularities in the bid form.

6. Examination of Site & Conditions

Before submitting a proposal, bidders must carefully examine the drawings and specifications, visit the site of the work and fully inform themselves as to all existing conditions and limitations. They shall include in the proposal, a sum to cover the cost of all items contemplated by the contract.

7. Interpretation of Proposed Contract Documents

If a bidder finds discrepancies in, or omissions from, the drawings or documents, or if he is in doubt as to their meaning he shall at once notify the Owner. Any request for interpretation of drawings or documents, request for approval of materials when certain manufacturer's material or its approved equal are called for, apparent omissions or discrepancies shall be presented to the Owner's Consulting Engineer.

8. <u>Contract Security</u>

The contractor shall furnish the following surety bonds when the contract is awarded:

- (A) Performance Bond 100% of Contract
- (B) Statutory Bond 100% of Contract
- (C) Maintenance Bond 100% of Contract

Forms will be furnished by the Owner's Consulting Engineer. If a contract is \$7,500.00 or less, no bonds are required.

9. Contractor's Liability and Builders All Risk Insurance

The contractor shall furnish the following insurance when the contract is awarded:

- (A) Workmen's Compensation: The contractor shall carry on his work in accordance with the requirements of the Workmen's Compensation Law of the State of Oklahoma, and shall not reject the provisions thereof during the life of this contract.
- (B) Public Liability and Property Damage: He shall also protect himself by liability insurance against any and all claims for damages to persons or property which may arise out of operations under this contract, whether such operations be by himself or a subcontractor or by anyone directly employed by either of them. Certificates of such insurance shall be filed with the Owner and shall be subject to its approval as to adequacy of protection. The public liability insurance shall have limits of not less than \$100/300,000 and the property damage insurance not less than \$50/100,000.
- (C) Builders Risk: Provide Builders Risk Insurance only if called for in other sections of the specifications.

10. Contract Changes - Change Orders to the Contract

- (A) All proposals for changes in work shall be submitted by the Contractor in a lump sum amount. (Must be broken down as shown in Section 10, paragraph d.)
- (B) In considering proposals for change involving added work, omitted work, or any combination thereof, check of estimates in detail will be made by the Owners representative, utilizing unit prices where specified or agreed upon, with the view of arrival at equitable adjustment.
- (C) When necessity to proceed with a change does not allow sufficient time to properly check a proposal or because of failure to reach an agreement, the Owner may order the Contractor to proceed on the basis of price to be determined at the earliest practical date, but not to be more than the increase or less than the decrease proposal.
- (D) With each proposal for a change involving an increase or a decrease in the amount of the contract, the Contractor shall submit separately an itemized breakdown that will include, but not be limited to, the following:

- (1) All materials with cost per item and extension.
- (2) All labor with number of hours per operation, cost per hour and extension.
- (3) Itemize the following:
 - a. All Insurance Cost
 - b. Bond Cost
 - c. Social Security Taxes
 - d. Workmen's Compensation
 - e. Employee Fringe Benefits
 - f. Overhead Cost
 - g. Profit
- (E) Proposals and breakdown should be submitted as promptly as possible.

11. Labor

The Contractor shall pay the prevailing wage and comply with all State and Federal Laws in the employment and payment of labor.

12. Payroll Records

In compliance with Senate Bill 132 as passed by the Thirtieth Oklahoma Legislature, the Contractor and each subcontractor shall keep an accurate record showing the names and occupation of all workmen employed by them, in connection with the public work, and showing also the actual wages paid to each of the workmen, which record shall be open at all reasonable hours to the inspection of the Owner.

13. Affidavits

For contracts under \$7,500.00, an affidavit must be submitted to the Owner with the final estimate for payment stating that all indebtedness incurred by the Contractor or his subcontractors who perform work in the performance of such contract for labor, materials and repairs to and parts for equipment used and consumed in the performance of said contract, has been paid in full.

14. <u>Permits</u>

The Contractor shall procure all necessary permits, pay for the same, and shall obtain all official licenses for the construction of the work and for temporary obstructions, enclosures, openings of streets for pipes, walls, etc., arising from the construction and completion of the work as mentioned in the specifications. He shall be responsible for all violations of the law for any cause in connection with the construction of the work caused by obstructing streets or sidewalks or otherwise, and he shall give all requisite notice to public authorities.

15. Modifications of Proposal

No oral or telephone proposals for modifications will be considered. However, telegraphic will be considered when bids are in due form and telegram is received not less than one hour before bid opening schedule. Successful bidder may be required to enter into a formal contract; however, in the absence of such a requirement, it is agreed by the bidder that this bid, together with a Notice of Award of Contract in the form of a Purchase Order, signed by the Owner will constitute a contract binding both parties thereto.

16. Documents

All drawings, specifications, and other contract documents shall be returned to the Owner in an unmutilated condition, without any marks or annotations, not more than seven (7) days after bids are opened.

17. Interpretation of Documents

The documents forming the contract are complementary and what is called for by one shall be as binding as if it were called for by all. They are intended to include all detail of labor and material reasonably necessary for the proper execution of the work. Should there be any discrepancy between the specifications and the plan, the specifications shall have precedence. Should there be any discrepancy between the special provisions and the "Standard Requirements", the special provisions shall apply.

18. <u>Definition of Terms</u>

In the Contract Documents the following terms shall be understood as herein below defined:

- (A) "Owner" means a political subdivision of the state that is eligible to receive a loan or grant from the state's Financial Assistance Program. Eligible entities include counties, towns and municipalities, rural water districts, irrigation districts, rural sewage districts, public works authorities, water conservancy districts and school districts.
- (B) "Contractor" means the individual, firm or corporation awarded the general contract for the work contemplated. The term contractor is mentioned herein as masculine singular merely for convenience and without special significance.
- (C) "Project" means any engineering undertaking which qualifies for a loan or grant from the state's Financial Assistance Program. Eligible projects include water supply reservoirs, storage tanks, water treatment systems, water distribution systems, wastewater collection systems, wastewater treatment systems and storm sewer pipes.
- (D) "Engineer" means the Owner's consultant that prepares contract documents for the work contemplated.
- (E) "Government" or "State" (referred to in earlier text) means the State of Oklahoma acting through the Oklahoma Water Resources Board.
- (F) "Bidder" means any person, firm, or corporation submitting a Bid for the project.
- (G) "Bid" means the offer or proposal of the Bidder submitted on the prescribed forms which consist of the Bid Proposal and Bid & Schedule. The Bid shall set forth the prices for work to be performed.
- (H) "Work" means 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.

19. Materials and Workmanship

The intent of the plans and specifications is to provide for the construction and completion in every detail of the work described therein, and it is understood that the Contractor will furnish all labor and materials, tools, equipment, transportation and necessary supplies such as may be required to execute the contract in a satisfactory and workmanlike manner and in accordance with the plans, specifications, and terms of the contract. Unless otherwise specified, all materials shall be new. All materials shall be of the best of the several kinds called for and it is intended that only the best methods and materials, as recognized by usage in first class work, shall be used. All workmanship shall be of the highest quality in every particular. Only workmen skilled in their respective lines shall be employed in order to achieve the above results. The Contractor shall at all times maintain strict discipline and good order among his employees.

20. <u>Time for Completion and Liquidated Damages</u>

Time is of the essence on this contract. The Contractor shall at all times carry on the work diligently and without delay and shall punctually fulfill all requirements herein made of him.

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.

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.

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.

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:

- (A) To any preference, priority or allocation order duly issued by the OWNER.
- (B) To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and
- (C) To any delays of SUBCONTRACTORS occasioned by any of the causes specified in paragraphs (A) and (B) above.

21. Royalties and Patents

The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save harmless from loss on account thereof. The Contractor shall protect from damage all water, sewer, gas, steam or other pipes or conduits, all hydrants and all other property that is liable to become displaced or damaged by the execution of the work, and when so ordered the Contractor shall suspend any work that may be subject to damage by climatic conditions.

22. Inspection

A representative of the Owner shall be present at all time that work is in progress. Any work completed without the inspector on site or improperly done shall be removed and replaced at the Contractors expense. The Contractor shall notify the Owner at least two days prior to commencing work. If work progress is delayed due to weather or material shortages, two days notice will be given in advance of returning to work, unless otherwise authorized by the Owner.

23. Correction of Work After Final Payment

Neither the final certificate of payment nor any provision in the Contract Documents shall relieve the Contractor of responsibility for faulty materials or workmanship and; unless otherwise specified, he shall remedy any defect due thereto and pay for any damages to other work resulting therefrom, which may appear within a period of one (1) year from the date of acceptance of the completed building or installation. The Owner shall give notice of observed defects with reasonable promptness.

24. <u>Superintendents</u>

The Contractor shall keep on this work, during its progress, a competent superintendent, who shall represent the Contractor in his absence. Important directions to the superintendent shall be confirmed in writing by the Contractor.

25. Owner's Rights

If the Contractor should be adjudged as bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials to carry on this work as required by the contract, or if he should fail to make prompt payment to subcontractors for materials, or labor, or persistently disregard Laws, Ordinances or the instructions of the Owner's representatives or otherwise be guilty of substantial violation of any provision of the contract, then the Owner may without prejudice to any other right or remedy and after giving the Contractor seven (7) days written notice, terminate the agreement with the Contractor and take possession of the premises and of all materials and appliances thereon and finish the work by whatever method it may deem expedient. In such case the Contract price shall exceed the expense of finishing the work, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the Owner. The expense incurred by the Owner as herein provided, and the damage incurred through the Contractor's default, shall be certified by the Engineer or Owner's representative.

26. Corrections of Work Before Final Payment

The Contractor shall promptly remove from the premises all materials condemned by the Owner's representative as failing to conform to the contract, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute his own work in accordance with the contract and without expense to the Owner and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

27. <u>Use of Premises</u>

The Contractor shall confine his apparatus, storage of materials, and operation of his work to the limits indicated by the Law, Ordinances, Permits or directions of the Owner, and shall not unreasonably encumber the premises with his materials. The Contractor shall enforce the Owner's instructions regarding signs, advertisements, fires, and smoking.

28. <u>Protection</u>

The Contractor shall protect from damage all buildings, trees, shrubs, lawns, and landscape work, and shall provide guards and covering for them. Any such property damage shall be repaired or replaced at the Contractor's expense. Smoking on certain parts of the site premises shall be prohibited and signs to that effect shall be posted conspicuously. Fires shall not be built on the premises except with the express consent of the State.

29. Cutting, Patching and Excavation

The Contractor shall do all cutting, fitting or patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by work of other contractors shown upon or reasonably implied by the Drawings and Specifications for the completed structure, and he shall make good after them as the Owner's representative may direct.

The Contractor shall do all cutting of walls and pavements that may be necessary to install the work and shall, after the equipment is installed, restore such surfaces to an approved condition.

All excavating necessary to the execution of this contract shall be done by the Contractor, who shall also furnish all labor necessary to backfill properly all excavation as the equipment is installed and inspected.

30. Payment to Contractor

Partial payment shall be due the Contractor each month during the course of construction for work performed during the preceding calendar month. The Contractor shall submit to the Owner an application for each payment and, if required, receipts or other vouchers showing his payment for material and labor, including payment to subcontractors. Such

applications shall be submitted by the thirtieth (30th) of each month and the Contractor shall submit to the Engineer, a schedule of values of the various parts of the work, aggregating the total sum of the contract.

31. Retainage

Ten percent (10%) of all monies earned by the Contractor, as approved by the Engineer will be retained by the Owner until at least 50% of the project is completed. With satisfactory progress being made as determined by the Owner, and upon approval of the Surety Company, the retainage will then be reduced to 5% of the amount earned to date.

Interest shall be paid to the Contractor at the rate of three-fourths percent (3/4%) per month on the final payment if the payment is delayed more than thirty days after the contract is completed, accepted and all required materials, certificates and other required documentation have been furnished to the Owner by the Contractor.

32. Protection of Workmen & Property

The Contractor shall erect and maintain good and sufficient guards, barricades and signals at all unsafe places at or near the work, and shall in all cases, maintain safe passageways at all road crossings, crosswalks, and street intersections; and shall do all other necessary things to prevent accident, injury or loss of any kind.

33. Responsibility for Damages

The Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay that may be caused by or result from the carrying out of the work to be done under this contract, or from any act, omission, or neglect of the Contractor, his subcontractors or employees.

The Contractor shall indemnify and save harmless the Owner, Engineer and the Government from all suits or actions of every name and description brought forth on account of damage or injury, loss, expense, inconvenience, or delay received or sustained by any person or damage caused to any property, which damage, injury, loss, expense, inconvenience or delay may have been caused by or may have resulted from the carrying out of the work to be done under this contract, or from any act, omission, or neglect of the Contractor, his subcontractor or his employees; provided however, that the Owner shall promptly call to the attention of the Contractor any claim filed with the Owner for any such injury or damage, and if suit or action be commenced to recover for any such claim or damage, that Owner shall, before time for answer expires or before default has been entered, furnish the Contractor or his surety with a copy of the complaint. In case there should be any suits or actions, so much of the money due to the Contractor under and by virtue of the contract as shall be considered necessary by the Engineer, may be retained by the Owner until such suits or actions shall have been settled or until the interests of the Owner, or of the persons concerned, have been otherwise satisfactorily protected.

34. Personal Liability of Public

In carrying out the provisions hereof, or in exercising any power or authority granted to him by the contract, there will be no liability upon the employees of the Owner personally or officials of the Government it being always understood that in such matters they act as the agents and representatives of the Owner.

35. Hours of Labor

The Law of the State of Oklahoma prohibits the employment of labor for more than eight (8) hours in any one day or for more than forty-eight (48) hours in any one week, except in cases of emergency when other competent help is not available, and in such case the Contractor is required to pay all said employees time and a half wages for all overtime.

36. Liability for Claims

The Contractor shall promptly, as due, make payments to all persons supplying labor or materials for the prosecution of the work provided for in this contract, and shall also pay all contributions or amounts due the State Industrial Accident Fund and the Unemployment Compensation Fund from such Contractor or subcontractor in connection with the performance of this work.

The Contractor shall not permit any lien or claim to be filed or prosecuted against the Owner or Government on account of any labor or materials furnished. Should the Contractor fail, neglect or refuse to make prompt payment of any claim for labor or services, furnished by any person in connection with this contract as said claim becomes due, whether said services and labor be performed for said Contractor or subcontractor, then in such event, the Owner may pay such claim to the person furnishing such labor or services and charge the amount thereof against funds due or to become due the Contractor by reason of this contract, but the payment of any such claim in the manner herein authorized shall not relieve the Contractor or his surety from his or its obligation with respect to any unpaid claims.

37. <u>Medical Care</u>

The Contractor shall promptly, as due, make payment to any persons, co-partnership, association or corporation furnishing medical, surgical and hospital care or other necessary care and attention incident to sickness and injury of the employees of such Contractor of all sums which the Contractor agrees to pay for such services and all moneys which the Contractor may deduct from the wages of his employees for such services, and any contract entered into pursuant thereto, and all moneys collected or deducted from the wages of said employees pursuant to any laws, contract or agreement for the purpose of providing or paying for such services.

38. Assignment

The Contractor shall not assign the contract or sublet it as a whole without written consent of the Owner nor shall the Contractor assign any moneys due or to become due to him hereunder, without previous consent of the Owner.

39. <u>Purchase of Materials</u>

Preference shall be given to materials and products manufactured in the State of Oklahoma. (61 0.S. 1981, Sec. 9 & 10)

40. <u>Prosecution of the Work</u>

Contractor shall commence work on this project within ten (10) days after receiving the Notice to Proceed. The work shall be continuously carried to completion subject to the provisions of the contract. The progress of the work shall be at a rate sufficient to complete the contract within the time specified unless otherwise agreed with the Owner.

41. <u>Cleaning</u>

The Contractor shall keep the work site clean at all times and shall remove all rubbish daily. Upon completion of the work, the Contractor shall remove all rubbish from the site and all tools, equipment and surplus materials, and shall leave the site "broom clean". Under no circumstances shall the Contractor dispose of <u>anything</u> on any property, both private or public, without the written consent of the landowner and prior approval of the Owner. All trash and waste materials shall be disposed of at the proper landfill facilities. In case of dispute, the Owner may remove the materials or trash and charge the cost to the Contractor.

42. <u>Taxes</u>

Without additional expense to the Owner the Contractor shall be liable for all applicable Federal, State and local taxes. Rural Water Districts are exempt from State and Federal Taxes.

43. Salvage

All material removed from a renovation project shall be coordinated with the Owner. If the Owner wants to keep the salvaged material, then the Contractor shall move it to the area designated by the Owner. If the Owner does not want the salvaged material, then the Contractor shall remove it from the premises and dispose of it.

44. Ownership of Drawings

All shop drawings, miscellaneous drawings or documents prepared by the Contractor, subcontractor, or material supplier to be used in the construction of the project described in the specifications shall become the property of the Owner. All documents, drawings, shop drawings, etc., shall be, upon request, delivered to the Owner at any time during the progress of the project.

45. Subcontracting

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. The contractor shall not award work to subcontractor(s) in excess of fifty (50) percent of the contract price without prior written approval of the owner. The contractor shall be fully responsible to the owner for the acts and omissions of his subcontractor(s), and of persons either directly or indirectly employed by them as he is for the acts and omissions of persons directly employed by him.

The contractor shall cause appropriate provisions to be inserted in all subcontracts relative to work to bind subcontractor(s) to the contractor by the terms of the contract documents insofar as applicable to the work of subcontractor(s) 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. Nothing contained in this contract shall create any contractual relation between any subcontractor and the owner.

CERTIFICATE OF APPROVAL

I, the undersigned _______ the duly authorized and acting legal representative of <u>Kingfisher County RWD #3</u> Oklahoma, do hereby certify as follows:

I have examined the construction contract between the contractor, ____

and the above named entity, and the surety bonds given by the contractor in connection with the performance of said contract, and the manner of execution of the contract and surety bonds; and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto, acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named therein; and that the foregoing contract and surety bonds constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

Dated this _____ day of ______, _____

Attorney

_____ County, Oklahoma

NOTICE OF AWARD

TO:

PROJECT DESCRIPTION:

12,490 L.F. 6" PVC CL 200 Complete in Place, 5 - 6"	Gate Valves, 2 - Connections to Existing
---	--

Water Lines, 500 L.F. Directional Bore for Creek Crossings, 90 L.F. Road Bores and Casing

14 - connections to existing meters, 500 L.F. PE DR 11 for Creek Crossing, 1 Fire Hydrant and

Valve and all appurtenances

The OWNER has considered the BID submitted by you for the above described WORK in response to its Advertisement for Bids dated <u>April</u>, <u>2025</u>, and Information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount §

You are required by the Information for Bidders to execute the Agreement and furnish the required Contractor's Performance Bond, Statutory Bond, Maintenance Bond and Certificate of Insurance within ten (10) calendar days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER's acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this day of		, <u>2025</u> .
	Owner:	Kingfisher County RWD #3
	Bv*	
	by.	(Signature)
	Name:	
		(Print or Type)
	Title	Chairman
		(Print or Type)
ACCEPTANCE OF NOTICE Receipt of the above NOTICE OF AWA	RD is hereb	y acknowledged by this the day of
	By:	
		(Signature)
	Title	
		(Print or Type)

NOTICE TO PROCEED

		Dale,
3 <u></u>		
PROJECT:		
12,490 L.F. 6" PVC CL 20	0 Complete in Pla	ace, 5 - 6" Gate Valves, 2 - Connections to Existing
Water Lines, 500 L.F. Dire	ectional Bore for C	Creek Crossings, 90 L.F. Road Bores and Casing
14 - connections to existin	g meters, 500 L.F.	PE DR 11 for Creek Crossing, 1 Fire Hydrant and
Valve and all appurtenance	es	
		<u></u> .
	Owner: By:	Kingfisher County RWD #3 (Signature)
	Owner: By: Name:	Kingfisher County RWD #3 (Signature) (Print or Type)
	Owner: By: Name: Title	Kingfisher County RWD #3 (Signature) (Print or Type) (Print or Type)
ACCEPTANCE OF NOTICE Receipt of the above NOTICE , 2025.	Owner: By: Name: Title OF PROCEED is he	Kingfisher County RWD #3 (Signature) (Print or Type) (Print or Type) reby acknowledged by, this the day of
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RELEASE OF CLAIMANTS

Date:_____

Project:

12,490 L.F. 6" PVC CL 200 Complete in Place, 5 - 6" Gate Valves, 2 - Connections to Existing
Water Lines, 500 L.F. Directional Bore for Creek Crossings, 90 L.F. Road Bores and Casing
14 - connections to existing meters, 500 L.F. PE DR 11 for Creek Crossing, 1 Fire Hydrant and
Valve and all appurtenances

Dear Sir:

I hereby acknowledge receipt of _____Dollars (\$____) in full payment of my contracted dated _____, for improvement work which I did for you and which is described in my contract.

I Certify that I have paid in full for all materials purchased and all labor employed in the performance of this contract and that there are no claims against me as an employer under this contract on account of injuries sustained by workmen employed by me thereunder. I hereby release you from any claims arising by virtue of this contract.

WARNING

The making of any false statement or misrepresentation herein may be a crime punishable under Title 18 U.S.C. §1001 which provides in part: "Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and wilfully...makes false representation, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than \$10,000.00 or imprisoned not more than five years, or both."

Sincerely,

Contractor
SECTION 10000 - METHOD OF PAYMENT

PART 1 - GENERAL REQUIREMENTS

- 1. All construction progress payment shall be handled as follows:
 - A. The contractor shall prepare an approved pay estimate and submit it to the engineer's field inspector.
 - B. The inspector shall check the estimate for accuracy and completeness and recommend any changes.
 - C. The Contractor shall make the revisions to the estimate and resubmit 5 copies to the inspector, who in turn, shall forward it to the Engineer for review and approval.
- 2. Project Overview
 - A. The project consists of construction of :

Contract I Water Line Replacement

PART 2 - MEASUREMENT AND PAYMENT

CONTRACT I

2.1 Water Line - L.F.

Payment for this item shall be for actual linear foot installed. This item shall also include but not be limited to the following: Disinfection testing, Leakage testing, tees, elbows, 12 gage tracer wire. Installation shall be in accordance with plans and specifications. Payment will not be made in full until an acceptable sample from DEQ is received by the District.

2.2 Gate Valves with Boxes - Each

Payment for this item shall be for actual valve installed. This item shall also include but not be limited to the following: thrust blocking. Valves and installation shall be in accordance with plans and specifications.

2.3 Bore and Casing Steel Casing - L.F.

Payment for this item shall be for actual linear foot of casing required to cross proposed highway from right-of-way to right-of-way. This item shall also include but not be limited to the following: casing pipe and vents. Installation shall be in accordance with plans and specifications.

2.4 Water Meter Reconnection - Each

Payment for this item shall be for actual meter reconnected or replaced. This item shall also include but not be limited to the following: service line, corp stop and service clamp and meter box and meter in the case of a new meter replacement. Installation shall be in accordance with the plans and specifications. Only taping tools can be used for taping the pipe.

2.5 Air Relief Valves - Each

Payment for this item shall be for actual Air Relief Valve installed. This item shall also include but not be limited to the following: air relief valve and connection with restraints. Installation shall be in accordance with the plans and specifications.

2.5 2 - Way fire Hydrants - Each

Payment for this item shall be for actual blowoff installed. This item shall also include but not be limited to the following: blowoff and connection with restraints. Installation shall be in accordance with the plans and specifications. Only taping tools can be used for taping the pipe.

2.6 Connections to Existing Lines - Each

Payment for this item shall be for existing lines connected to new lines. This item shall also include but not be limited to the following: Excavation, fittings and labor. Installation shall be in accordance with the plans and specifications. Only taping tools can be used for taping the pipe.

SECTION 10010 - COORDINATION AND MEETINGS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Coordination
- B. Field Engineering
- C. Alteration Procedures
- D. Cutting and Patching
- E. Preconstruction Conference
- F. Progress Meetings

1.2 COORDINATION

- A. Coordinate scheduling, submittals, and Work of the various Sections of specifications to assure efficient and orderly sequence of demolition.
- B. Coordinate completion and cleanup of Work of separate Sections in preparation for Substantial Completion.

1.3 FIELD ENGINEERING

- A. Maintain a complete and accurate log of any deviations from the plans as work progresses.
- B. Verify location of control points prior to starting work.
- C. Promptly notify Engineer of any discrepancies discovered.
- D. Contractor shall locate and protect control and reference points. Contractor shall report immediately to Engineer whenever any control or reference point is lost or destroyed or requires relocation.

1.4 ALTERATION PROJECT PROCEDURES

- A. Remove, cut, and patch work in a manner to minimize damage and to provide a means of restoring products and finishes to original specified condition.
- B. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.

1.5 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching.
- B. Execute Work by methods which will avoid damage to other Work, and provide proper surfaces to receive patching and finishing.
- C. Cut rigid materials using masonry saw or core drill.
- D. Identify any hazardous substance or condition exposed during the Work to the Engineer for decision or remedy.

1.6 PRECONSTRUCTION CONFERENCE

- A. Engineer will schedule a conference after Notice of Award.
- B. Attendance Required: Owner, Engineer and Contractor.
- C. Agenda:
 - 1. Execution of Owner-Contractor Agreement
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Distribution of Contract Documents.
 - 4. Designation of personnel representing the parties in Contract, and the Engineer.
 - 5. Procedures for processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders and Contract closeout procedures.
 - 6. Scheduling.

1.7 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.

SECTION 10011 - SUBMITTALS

PART 1 - GENERAL

1.8 SECTION INCLUDES

- A. Submittal procedures.
- B. Demolition progress schedules.
- C. Shop drawings.

1.9 SUBMITTAL PROCEDURES

- A. Transmit each submittal to Engineer.
- B. Sequentially number the transmittal forms. Resubmittals to have original number with an alphabetic suffix.
- C. Identify Project, Contractor, Subcontractor or supplier; pertinent Drawing sheet and detail numbers, and specification Section number, as appropriate.
- D. Apply Contractor's stamp, signed or initialed by authorized Contractor personnel, certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents. Application of the stamp with signature or initials filled in shall be conclusive as to the making of such certification.
- E. Schedule submittals to expedite the Project, and deliver them to Engineer at business address. Coordinate submission of related items.
- F. Identify variations from Contract Documents and Product or system limitations.
- G. Provide space for Contractor and Engineer review stamps.
- H. Revise and resubmit submittals as required, identify all changes made since previous submittal by specific notation or color highlighting on the drawings or product data.
- I. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

1.10 SHOP DRAWINGS

A. Submit as project requires.

SECTION 10012 - QUALITY CONTROL

PART 1 - GENERAL

1.11 SECTION INCLUDES

- A. Quality assurance/control
- B. References

1.12 QUALITY ASSURANCE/CONTROL

- A. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances codes, or specified requirements indicate higher standards or more precise workmanship.
- B. Utilize workers qualified to produce workmanship of specified quality.

1.13 REFERENCES

- A. Conform to reference standard by date of issue current on date for receiving bids.
- B. Should specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

SECTION 10013 - CONTRACT CLOSEOUT

PART 1 - GENERAL

1.14 SECTION INCLUDES

- A. Closeout Procedures.
- B. Final Cleaning.
- C. Project Record Documents.

1.15 RELATED SECTIONS

A. Section 01300 - Submittals

1.16 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's inspection.
- B. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- C. Make all submittals not previously made.

1.17 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean site; sweep paved areas, rake clean landscaped surfaces.
- C. Remove waste and surplus materials from the site.

1.18 PROJECT RECORD DOCUMENTS

- A. Maintain on site, one set of the following record documents; record actual revisions to the Work:
 - 1. Contract Drawings.
 - 2. Specifications
 - 3. Addenda.
 - 4. Change Orders and other Modifications to the Contract.
 - 5. Reviewed shop drawings.

- B. Record Documents and Shop Drawings: Legibly mark each item to record actual demolition including:
 - 1. Measured horizontal and vertical locations of underground pipelines and appurtenances, referenced to permanent surface improvements.
- C. Submit documents to Engineer.

SECTION 10106 - GENERAL CONSTRUCTION INFORMATION

1.1 RIGHT OF WAY AND FENCES

The Right of Way in some cases has been obtained from private land owners but in most cases is standard street right of way in town. The contractor shall not deliberately damage private property in the construction of water lines. He shall construct the lines with a minimum of inconvenience to the private property owner and in no case shall the owner be deprived from the use of his driveway or land.

When it is necessary to cross fences, the Contractor shall carefully remove the fence and upon completion of the ditch or lines, he shall replace the fence in as equal or better condition. If necessary, he shall build wire gates in order to protect the owners livestock and shall keep gates closed at all times. If necessary to cut the fence, the splice shall be made with the same type of wire as the original fence.

In general, when pipe lines are constructed within Highway Right of Way, the lines shall be placed within 4 feet of the Right of Way and never in the Highway Barrow ditch along the Highway paved shoulder.

1.2 BARRICADES AND WARNING SIGNS

Where work is carried on in or adjacent to any street, alley, road, highway or public place, the Contractor shall, at his own expense, furnish and erect such barricades, fences, lights and danger signals, shall provide watchmen and take such other precautionary measures for the protection of persons or property and of the work as are necessary. From sunset to sunrise, the Contractor shall furnish and maintain at least two (2) lights at each barricade. A sufficient number of barricades shall be erected to keep vehicles from being driven on or into any work under construction. The Contractor shall furnish watchmen in sufficient numbers to protect any new work. Failure to comply with this requirement will result in the Engineer shutting down the work until the Contractor shall have provided the necessary protection. Work along State or Federal Highways shall be signed, barricaded, and protected according to ODOT regulations and as directed by ODOT Representatives.

1.3 HIGHWAY AND ROAD CROSSINGS

All highway and road crossing materials shall be furnished and installed as indicated on the Plans.

1.4 CASING

Steel casing for the highway, street and railroad crossings shall be the sizes and lengths shown on the Plans. Generally, 18" steel casing and smaller shall be 1/4" wall thickness. All casing, unless indicated elsewhere, shall be standard mill pipe, sound, clean, free from large amounts of pitting, used pipe. A neoprene seal shall be installed on each end of the casing. For highway crossing, a

two inch vent shall be installed from the end of the casing immediately inside the seal) and brought to the surface, three feet above the ground surface an the R/W line. An insect screen will be secured to the end of the vent and a sign attached.

1.5 CONNECTIONS TO EXISTING LINES

The contractor shall connect new lines to existing lines as indicated on the drawings. The drawings represent the best available information the size, type and location of existing system components. The Contractor shall verify the type and size of pipe and the configuration before ordering fittings. The contract will be adjusted (increased or decreased) where the drawings do not accurately depict the actual field conditions, however there shall be no additional compensation made to the Contractor because the incorrect fittings were ordered. Except as noted, the Contractor may either cut in a tee and valve or use a tapping sleeve and valve where appropriate.

1.6 DRIVEWAY CROSSINGS

Drives shall be replaced equal to that which existed prior to construction. Concrete and asphalt drives shall be sawed, and where practical, concrete drives shall be removed and replaced to the nearest construction joint. Backfill material beneath paved drives shall be hydraulically settled clean river sand, and/or clean class A crushed stone.

1.7 SURVEYING AND STAKING

The new water line is to be located far enough away from the existing highways so that the line will not be located under pavement in the event the highways are widened in the future, and deep enough so that the right of way work for future highway construction will not expose the line.

In areas where the line is located in highway right of way, the line must be laid as close as possible to the right of way four (4) feet inside the right of way and with a minimum of three (3) feet of cover.

The plans contain sufficient reference and information to permit the Bidders to locate the line accurately enough for bidding purposes. The Owner will work with the Contractor as construction progresses to determine the precise location of the lines and to adjust the alignment as may be required.

It will be the responsibility of the Contractor to provide construction staking throughout the limits of the project, if required.

1.8 CLEANUP AND RESTORATION OF DISTURBED AREAS

In embankment areas within State Highway right of way where excavation is required to construct the water line, the Contractor shall furnish embankment protection to prevent any sliding failures that may occur. All backfill in State Highway right of way shall be compacted to 90% Standard Proctor Density.

Where water lines and appurtenances are located in public right of way that is maintained by the City, County or State, the Contractor shall remove all surface debris and smooth the area with a small bulldozer or box blade as may be appropriate.

Where construction disturbs yards or other areas that are privately maintained, the Contractor shall make an extra effort to restore these areas as neatly as possible to pre-construction condition within 10 to 15 days after the installation of the line. It will not be necessary to restore ground cover, however, rocks, large clods, and other undesirable debris shall be removed from the construction area and every effort shall be made to restore the topsoil removed to permit construction. Disturbed areas shall be hand raked to break up any large clods and blend the disturbed area with the surrounding area.

1.9 STREET, ROAD OR HIGHWAY CROSSING

Where required by the State, County, or Local authority having jurisdiction there over the traffic be maintained over any construction work in a public street, road, or highway, and such traffic cannot be maintained on the highway, and such traffic cannot be maintained on the alignment of the original roadbed or pavement, the Contractor shall, at his own expense, construct and maintain detour around any construction work requiring such detour during the time that it is necessary to obstruct traffic over such street, road, or highway.

Such detour shall include a bridge, if necessary, across the site of the pipe trench and all necessary barricades, guard rails, approaches, suitable lights, signals, signs and other devices and precautions necessary for the protection of the work and safety of the public in accordance with the authority having jurisdiction over the street, road, or highway. All signs, lighting, and signals shall be in accordance with the <u>Manual on Uniform Traffic Control Devices</u> (MUTCD).

All public streets, highways and roads which are closed to traffic, under authority of proper permit, shall be protected in accordance with the requirements of the authority by means of effective barricades on which shall be placed acceptable warning signs, highway or street on each side of the blocked portion of such public thoroughfare.

All barricades and obstructions shall be illuminated by means of yellow flashing lights at night. All lights used for this purpose shall be kept lit at all times.

Materials stored upon or alongside public streets and highways shall be so conducted as to cause the minimum obstruction and inconvenience to the traveling public.

All barricades, signs, yellow lights and other protective devices shall be installed and maintained in conformity with applicable statutory requirements.

1.10 RIGHT OF WAY

Any right of way used by the Contractor beyond that specified herein or shown on the plans shall be at the Contractor's expense and he shall make arrangements with the property owner before entering upon any property he may desire to use beyond the right of way provided under this project.

County roads, State Highways and City Street right of way shall be used as is necessary, in the opinion of the Engineer, or the Owner's Representative for the proper conduct of the work. Permission must first be obtained from the governing authority.

1.11 PROTECTION OF WORKERS AND PERSONNEL

The Contractor shall take such action as may be required for protection of workers in accordance with current OSHA rules and regulations, and such action as may otherwise be required to protect and facilitate work within excavations. The Contractor may provide sheeting and shoring or cut walls of excavations back on suitable slopes, as may be appropriate.

1.12 CULVERTS, DITCHES, CURBS, SIDEWALKS, DRIVEWAYS, ETC.

After the pipeline has been installed and the backfilling completed, the Contractor shall replace in kind, to line and grade, all street and highway culverts, ditches, sidewalks, driveways, curbs, and all other structures that may have been removed or otherwise damaged in any way by operations in the performance of this contract. All gutters and drainage ditches shall be carefully restored to their original condition.

SECTION 10200 - WATER PIPE AND FITTINGS

PART 1 - GENERAL

1.1 DESCRIPTION

The work of this section consist of furnishing and installing PVC and Ductile Iron pipe and fittings at the locations shown on the plans and in accordance with these specifications.

1.2 QUALITY ASSURANCE

A. PVC Pipe: Pipe shall be as manufactured by Manville, Clow or approved equal. The contractor shall furnish an affidavit from the manufacturer that pipe meets the requirements of these specifications. All pipe shall be marked showing the following:

Manufacturer's Name or Trademark Nominal Pipe Size and Size Base Material Code SDR Number Pressure Rating ASTM Designation NSF Certification

B. Ductile Iron Pipe: Pipe shall be as manufactured by U.S. Steel, Clow or approved equal. All pipe shall be marked showing the following:

Manufacturer's Name or Trademark Pipe Class Pipe diameter (nominal) Date of manufacture

C. Fittings: Fittings for PVC and Ductile Iron Pipe shall be manufactured by Clow, U.S. Pipe.

1.3 PRODUCT HANDLING

- A. Handle pipe carefully to insure delivery at the project site in sound, undamaged condition. The Owner or engineer will reject damaged pipe on-site. The contractor shall replace damaged pipe at no additional expense to the Owner.
- B. Pipe shall not be stored directly on the ground. Adequately support piping to prevent warpage. Use and maintain protective covers where pipe may be damaged by direct sunlight.

PART 2 - MATERIALS

2.1 PVC PIPE

Polyvinyl Chloride (PVC) pipe shall conform to the provisions of ASTM D-2241 for pressure rated pipe or AWWA C-900. The size shall be as shown on the Plans. All joints shall be integrally formed, rubber gasket, push-on type. Minimum pressure ratings shall be as follows:

	AWWA C-900	ASTM D	0-2241
Pipe Size	Pressure C-900	SDR-21	SDR-26
2"	150 psi	200 psi	160 psi
4"	150 psi	200 psi	160 psi
6"	150 psi	200 psi	160 psi
8"	150 psi	200 psi	160 psi
10"	150 psi	200 psi	160 psi
12"	150 psi	200 psi	160 psi

Nominal Size ASTM D-2241 or AWWA C-900

4" through 12" DIAMETER INTEGRALLY RESTRAINED C900 PVC PRESSURE PIPE

GENERAL: 4" through 12" PVC integrally restrained pressure pipe shall be manufactured in accordance with American Water Works Association (AWWA) Product Standard C900 for nominal sizes 4" through 12" and shall have cast iron outside diameters. Pipe shall be furnished in laying lengths of 20 ft. +/- 1", and shall be made of compounds conforming to cell classification 12454 as defined in ASTM D1784. Pipe shall meet the pressure rating and/or the dimension ratio as shown on the plans.

JOINTS: Integrally restrained PVC pressure pipe shall be manufactured with an integral bell and spigot "push on" joint meeting the requirements of ASTM D3139 and utilize the Bulldog Restraint System. C900 PVC pipe shall be furnished with locked in place Rieber reinforced elastomeric gasketed joints to assure that the gasket will remain in place during field assembly. Gasket material shall meet the requirements of ASTM F477. Lubricant used for pipe and fittings shall be nontoxic and have no detrimental effect on the gasket or pipe.

APPROVALS: Integrally restrained PVC pressure pipe shall be tested in accordance with the physical, dimensional, and performance requirements of AWWA C900. It shall be listed by Underwriter's Laboratories and bear the NSF seal. Each piece will be hydrostatically proof tested per AWWA C900 before being shipped.

Integrally restrained PVC C900 pressure pipe shall be Diamond Lok-21 as manufactured by Diamond Plastics Corporation, or approved equal.

2.2 POLYETHYLENE PIPE

High Density Polyethylene Water transmission and distribution pipe shall meet the specifications and requirements of American Water Works Association Standard C906 in sizes 4" to 54" and be joined by means of zero leak-rate butt fusion and approved mechanical joints, . The polyethylene pipe and fittings shall be made from prime virgin resins exhibiting a cell classification of PE 345434C as defined in ASTM D3350 with an established hydrostatic-design-basis of 1600 psi for water at 73 degree F. The resin shall be listed by the PPI (Plastic Pipe Institute) in its pipe-grade registry "TR-4". Pipe O.D. sizes 4" and 6" shall be steel pipe sizes (IPS), and all pipes shall be suitable for use as a fluid pressure conduit. Peak flow velocity of 5 ft/sec shall be used in the hydraulic engineering design.

The <u>net</u> pressure capability shall be the working pressure rating (WPR) as follows:

DR 13.5=WPR @ 130 psi DR 11=WPR @ 160 psi DR 9=WPR @ 200 psi

The wall thickness shall follow the Dimension Ration(DR) system prescribed in AWWA C906. Laying lengths ar 40 ft. standard. the pipe is to be joined by heat fusion, flanges or other mechanical joint systems proven for HDPE pipes. Both pipe and fittings must be NSF listed by the manufacture and bear the "NSF-pw" logo or mark.

Pipe and fittings must be marked as prescribed by AWWA C906 and NSF. This will include nominal size, OD base (ie: 12" ductile iron pipe sizing, DIPS), dimension ratio, pressure class, WPR, AWWA-C906, manufacture's name, manufacture's production code including day, month, year extruded.

Each manufacture shall have an approved in-house QA/QC program providing compliance to the testing specifications and requirements of AWWA Standard C906 for both pipe and fittings.

All pipe and fittings shall have a date stamp less than six (6) months old. All pipe is to be welded by a certified welder using the manufactures recommended procedures.

2.3 DUCTILE IRON PIPE

Ductile iron pipe shall conform to AWWA C151 (ANSI A21.51). Pipe shall be Class 50 for 6-inch and larger, and Class 52 for pipe less than 6-inch. Pipe joints shall be as follows:

Joints for buried service shall be mechanical or slip-on. Gasket shall be of the same manufacturer as the pipe.

Joints for building or vault service shall be flanged per AWWA C115 (ANSI A21.15), Class 250.

All pipe shall have a cement mortar lining per AWWA C104 (ANSI A21.4), minimum 1/16-inch thick.

2.4 FITTINGS

Fittings for PVC, PE and Ductile Iron pipe shall conform to the provisions of AWWA C110. All fittings shall have the same joints as adjacent pipe and adequate for 250 psi working pressure. All fittings shall have a cement mortar lining per AWWA C104 (ANSI A21.4), minimum 1/16-inch thick.

2.5 TRACER TAPE OR WIRE

Detectable tracer tape shall be installed above PVC pipe. The tape shall be 2-inches wide, 5.5 mil polyethylene film with a metallized foil core. It shall weigh at least 35 pounds per one hundred square feet.

Trace wire shall be standard for the industry.

PART 3 - EXECUTION

3.1 INSTALLATION OF PIPE IN TRENCHES

- A. General Requirements for All Pipe
 - (1) Pipe and fittings shall be installed on the grades and lines shown on the plans. Thoroughly clean pipe interiors of foreign matter before installation. When work is not in progress, securely close open ends of pipe and fittings. All pipe and fittings shall be new and free of blemishes.
 - (2) Thrust blocks: Install thrust blocks at all tees, elbows, bends, crosses, reducers, and dead ends as shown on the plans or as recommended by the pipe manufacturer.
 - (3) Inspection: Inspect pipe for defects before lowering into trench. Defective, damaged, or unsound pipe will be rejected.
 - (4) Pipe Cutting: Cutting for closure or other reasons shall be done neatly by methods which will not damage pipe, lining or coating. Sharp edges shall be smoothed to prevent damage to gaskets.
 - (5) In rock the trench must be excavated at least 6" below the the bottom of the pipe for bedding material as shown in the trench detail and outlined in the standard detail notes.

3.2 INSTALLATION OF PIPE IN VAULTS OR BUILDINGS

A. General Requirements for All Pipe

- (1) Pipe and fittings shall be installed on the lines shown on the Plans. Thoroughly clean pipe interiors of foreign matter before installation. Inspect pipe for defects before installation. Defective, damaged or unsound pipe will be rejected.
- (2) Pipe shall be run parallel with or at right angles to the adjacent walls or floors, except when not possible due to conflicts with other facilities.
- (3) Pipe Cutting: Cutting for closure or other reasons shall be done neatly by methods which will not damage pipe, lining or coating.
- (4) Joints: All pipe shall have flanged joints unless otherwise shown on the plans or approved by the Engineer.
- (5) Provisions for maximum flexibility are not always shown and the Contractor may add flexible joints where required, and approved by the Engineer.
- (6) All pipe shall be carefully aligned and shall be installed in a neat manner. The bolts in the flange joints shall be drawn up uniformly and tightly around the flange without over straining the flanges. All joints shall be made watertight.
- (7) Pipe Embedded in Concrete: All pipe and fittings embedded in concrete shall be accurately located and shall be securely held in place to prevent displacement when concrete is placed. Such embedded items shall be thoroughly cleaned of rust, grease.
- (8) Cleanup: After the pipe has been installed, tested, and disinfected the contractor shall thoroughly clean all parts of the building or vault. All pipe shall be cleaned of grease, metal cuttings and other debris.

SECTION 10201 - GATE VALVES

PART 1 - GENERAL

1.1 DESCRIPTION

The contractor shall furnish all labor, equipment and materials to install gate valves and appurtenances at locations shown on the plans or directed by the Engineer.

1.2 SUBMITTALS

Furnish three sets of shop drawings or catalog cuts and complete maintenance data.

1.3 QUALITY ASSURANCE

Valves and appurtenances shall be manufactured by Mueller, M & H, Clow, Pratt, Crane, Darling, Walworth, DeZurik, or approved equal.

PART 2 - MATERIALS

- 2.1 GENERAL
- A. All valves shall have the name of the manufacturer and the size of the valve cast on the body or bonnet or shown on a permanently attached plate in raised letters.
- B. Valves for vault or building service shall be complete with all necessary operating handwheels, chain wheels, extension stems, floor stands, worm and gear operators, operating nuts, chains, and wrenches which are required for proper completion of the valve installation.
- C. Valves for buried service shall be complete with gravel or concrete support pad, and two-piece valve box set in a 16-inch x 16-inch x 6-inch thick concrete pad. Concrete shall be 3000 psi at 28 days.
- 2.2 VALVES
- A. Vault or Building Service: The valve shall be iron body, bronze mounted with flanged ends, reslient seat gate, o-ring sealed, rising bronze stem and conforming to AWWA C500. Design working pressure shall be 150 psi. The valve shall open counterclockwise and be operated by handwheel, unless otherwise noted.
- B. Buried Service: The valve shall be iron body, non-rising stem, reslient seat gate, o-ring sealed stuffing box, with mechanical joint ends. The valve shall open counterclockwise and have a 2-inch square operating nut.

2.3 T-HANDLE OPERATING WRENCHES

Operating wrenches shall be 4-feet total length as manufactured by Mueller, Clow or approved equal.

2.4 VALVE BOXES

The box shall be of sufficient length to reach from the pipe to at least one-inch above the final ground surface elevation.

The box shall be two-piece sliding type, cast iron, with 5%-inch shaft. Extension pieces, if required, shall be the manufacturer's standard type. The word WATER or "W" shall be cast into the top of the lid, as appropriate for the service. Units shall be Mueller, Claw, or approved equal.

2.5 VALVE OPERATORS

- A. All valve operators shall open by turning counterclockwise.
- B. Valve operators shall be self-locking type to prevent creeping.

2.6 EXTENSION STEMS FOR VALVE OPERATORS (Buried Service)

Where the depth of the valve is such that its centerline is more than 4 feet below grade, operating extension stems shall be provided to bring the operating nut to a point 6-inches below the surface of the ground and/or box cover. Extension stems shall be constructed of steel and shall be complete with 2-inch square operating nut.

2.7 EXTENSION BONNETS FOR VALVE OPERATORS

Bonnet and stem shall be constructed of steel and given manufacturer's standard paint system. Bonnets shall be as supplied by Pratt, Allis Chalmers, or approved equal.

2.8 FLOOR STANDS AND EXTENSION STEMS

Floor stands shall be non-rising stem, indicating type, complete with all necessary steel extension stems, couplings, handwheels, stem guide brackets, and special yoke attachments as required by the values and recommended and supplied by the stand manufacturer. Stem guides shall be spaced so that the stem L/R ration does not exceed 200. Provide all necessary anchor bolts in Type 316 stainless steel. Floor stands shall be cast iron. All equipment shall be as supplied by Clow Corporation, Mueller Co. or approved equal.

2.9 VALVE SUPPORT PAD

All buried valves shall be supported by a concrete or gravel pad. The pad shall be at least 6inches thick measured from the bottom of the valve. The horizontal dimensions of the pad shall be 6-inches greater than the largest centerline. Concrete shall be at least 3000 psi at 28 days. Gravel shall be clean, durable, and well-graded from 1/4-inch to one-inch.

PART 3 - EXECUTION

3.1 BURIED VALVES

Install valves in the line at locations indicated on the plans, unless otherwise directed, and set plumb on concrete or gravel pad. All foreign matter shall be removed from the valve interior prior to installation.

3.2 VALVES IN VAULTS OR BUILDINGS

Install in the lines as indicated on the drawings, unless otherwise directed. The value shall be oriented to provide easy access to the handwheel. All foreign matter shall be removed from the interior prior to installation.

3.3 PRESSURE TEST

Gate valve test shall be a part of the test on the companion water line(s).

3.4 DISINFECTION

Gate valve disinfection shall be with the part of the disinfection of the companion water line(s).

SECTION 10204 - COMBINATION AIR-VACUUM VALVE

PART 1 - GENERAL

1.1 DESCRIPTION

The contractor shall provide all labor, equipment, and materials to install air-vacuum valve(s) m accordance with details on the plans and the requirements herein specified.

1.2 QUALITY ASSURANCE

Valve shall be as manufactured by Apco, Darling, Crispin, Rensselaer, Val-Matic, or approved equal.

1.3 SUBMITTALS

The contractor shall submit 3 sets of catalog cuts or drawings and operation and maintenance data to the Engineer for approval of the following items:

- A. Combination air-vacuum valve
- B. Inlet-outlet piping details
- C. Valve vault details

PART 2 - MATERIALS

2.1 VALVES FOR POTABLE WATER SERVICE

A. Valve Construction: All materials of construction shall be in accordance with ASTM specifications as follows:

Body	A48, Class 30
Cover	A48, Class 30
Baffle	PA8, Class 30
Stainless Steel	FloatA240
Buna-N Seat	Nitrile Rubber

The baffle will be designed to protect the float from direct contact of the rushing air and water to prevent the float from closing prematurely in the valve. The float shall be center guided for positive seating.

The seat shall be fastened into the valve cover without distortion and shall be easily removed if necessary.

The discharge orifice area shall be equal or greater than the inlet of the valve.

The overall height of the combination valve shall not exceed 24-inches.

B. Size: The valve size shall allow large quantities of air to escape out of the orifice when filling a pipeline and to close water tight when liquid enters the valve. Also, the valve shall permit large quantities of air to enter through the orifice when the pipeline is being drained to break the vacuum. Valve size shall be as follows:

Working Pressure	Inlet Size
0-50 psi	1/2-inch
50-100 psi	3/4-inch
over 100 psi	1-inch

- C. Pressure Rating: All valves shall be suitable for a water working pressure of 150 psi.
- D. PAINTING: The inside of the valve body shall be coated with a rust inhibitor. The outside of the valve shall be coated with red lead for corrosion resistance. The dry film thickness shall be 5 mils.

2.2 PIPE AND FITTINGS

All pipe and fittings that are needed to provide a complete installation shall be schedule 40 galvanized steel with threaded ends.

2.3 VALVES

All valves that are installed in the piping described in Section 2.2 of these specifications shall be bronze gate valves. Valve size shall be the same as adjacent piping.

PART 3 - EXECUTION

- 3.1 PIPELINE SERVICE
 - A. General: The combination air valve shall be installed directly above the water main at the location(s) indicated on the plans or as directed by the Engineer.
 - B. Connection to Main Line: The connection to the main shall be as described below, unless otherwise approved by the Engineer:
 - 1. Install a cast-iron tee in the main line. The side outlet shall be installed vertical and plumb. Ends shall be mechanical joint.
 - 2. Install a M.J. Plug on the side outlet, drill and tap.
 - 3. Install inlet piping with a gate valve.

- C. The air-vacuum valve shall be installed in a vault. The vault shall be constructed in strict accordance with the requirements given in the section "Vaults for Valves and Meters", and in the location shown on the plans. -
- D. Vent Pipe: A vent pipe shall be installed between the valve discharge outlet and the atmosphere. Pipe size shall be the same as the valve discharge outlet.

The vent pipe shall extend at least 12-inches above finished grade and a return bend installed. The opened end of the return bend shall be equipped with a 16-mesh stainless steel screen or a perforated nipple. The area of all openings in the perforated nipple shall equal the area of the vent pipe.

The vent pipe shall be supported by a 4-inch diameter by 5'-0" long, schedule 40 steel pipe. The vent pipe shall be attached with at least two stainless steel straps. The support pipe shall extend 2'-0" above finished grade. The remainder of the pipe shall be set in a 12-inch diameter concrete base (2000 psi Q 28 days). The concrete shall extend 3-inches below the bottom of the support pipe. The support pipe shall be capped and painted with two coats of aluminum to a dry film thickness of 5 mils.

3.2 BUILDING SERVICE

The combination air valve shall be installed at the location shown on the plans.

The vent pipe shall extend six-inches above the valve body and a return bend installed. A wire mesh or perforated pipe as described in 3.1, D above shall be installed on the return bend.

The building floor shall be sloped to drain any effluent from the vent pipe. The building shall be properly ventilated to provide the volume of air required by the valve. If necessary, extend the vent pipe through the building roof.

The connection to the main line shall be described in 3.1, B above.

SECTION 10205 - FIRE HYDRANT

PART 1 - GENERAL

1.1 DESCRIPTION

The work shall consist of installing fire hydrants at locations indicated on the Plans or as directed by the Engineer.

1.2 CERTIFICATION

Furnish an affidavit from the manufacturer that the hydrant conforms to AWWA Standard C502.

1.3 SUBMITTALS

Furnish catalog cuts, complete maintenance data and assembly drawings.

PART 2 - MATERIALS

2.1 HYDRANTS

The fire hydrants shall be the product of Mueller, Clow or equal.

- A. Main Valve: 5 1/4-inch, unless otherwise noted.
- B. Inlet Size: 6-inch
- C. Depth of Bury: 3'-6" minimum
- D. Operating nut: 1 1/2-inch pentagon
- E. Open: Left
- F. Threads: National Standard
- G. Hydrant main valve shall open against pressure.
- H. Barrel shall be dry type
- I. Bottom connection shall be mechanical joint
- J. Hydrant shall be provided with a ground break-off flange
- K. Stem seals shall be the O-Ring type
- L. Color of the shop-applied, above ground paint shall be red.
- M. Nozzle arrangement:

The hydrant shall have two hose nozzles 180-degrees apart and one pumper nozzle centered between the hose nozzles. Hose nozzle diameter shall be 2 1/2-inch and pumper nozzle diameter shall be 4 1/2-inch unless otherwise noted.

- N. Drain ports: two (minimum)
- 0. Nozzle cap gaskets shall be plastic or neoprene.
- P. Type: 3-way

2.2 GUARD POST

When required, provide three, 6-inch diameter, schedule 40 steel post filled with 3000 psi concrete. Post shall extend 3 feet below and 3 feet above finished ground surface. Post shall be located 2'-6" form the hydrant (measured from top nut on hydrant to center of post), and 120 degrees apart. Post shall not be placed directly in front of nozzles. Post shall be painted with two coats of alkyd. The minimum dry-film thickness shall be 5 mils.

2.3 INSTALLING HYDRANT ON EXISTING WATER MAIN

A tapping sleeve and tapping valve shall be installed on the existing water main. Valve size shall be the same as the lead pipe. The sleeve and valve shall meet the applicable provisions of "Valves for Water Systems".

2.4 LEAD PIPE

The pipe between the hydrant and water main shall be at least six-inch diameter. For new construction, the lead pipe material and bedding shall be identical to requirements for the new water main. For hydrants installed in existing mains the lead pipe shall consist of class 50 ductile iron or PVC per ASTM D-2241 or AWWA C-900 suitable for 150 psi working pressure.

2.5 DRAINAGE AGGREGATE

Aggregate shall be clean, durable gravel, well graded from 1/4-inch to 1-inch.

2.6 GATE VALVE AND BOX

The gate valve shall be 6-inch and perform in accordance with the applicable provisions of "Gate Valves". Connecting ends shall be mechanical joint.

PART 3 - EXECUTION

3.1 EXCAVATION AND BACKFILL

Perform in accordance with the applicable provisions of "Trench Excavation and Backfill".

3.2 HYDRANTS

Where applicable, hydrants shall be installed with pumper nozzle facing the adjacent roadway or parking lot. Set hydrant at such elevation that the connecting pipe shall drain to the main with a grade of 0.5 percent. Firmly block the back of the hydrant opposite the connecting pipe with a concrete thrust block braced against the vertical face of the trench with at least 4 cubic-feet in mass (2500 psi, min.; 4-inch slump, max.) and 4 square-feet in area to prevent the hydrant from blowing off the line.

3.3 BRINDLE RODS

If the character of the soil is such that the hydrant cannot be securely wedged, a connecting piece with integrally cast mechanical joint glands, ductile iron retainer glands, or bridle rods and rod collars shall be used. Bridle rods and rod collars shall be not less than 3/4-inch stock and shall be protected by a coat of acid-resisting paint.

3.4 DRAINAGE AGGREGATE AND BACKFILL

Place not less than 6 cubic-feet of drainage aggregate around the base of each hydrant to insure drainage. A layer of 30-pound asphalt-saturated felt paper or 60 mil vinyl sheet shall be placed over the gravel to keep backfill material from sifting into the gravel. Thoroughly compact the backfill around hydrants, to the grade line.

3.5 **OPERATIONS CHECK**

Clean hydrant interiors of all foreign matter before installation. Stuffing boxes shall be tightened and the hydrant inspected in opened and closed positions to see that all parts are in working condition.

3.6 PRESSURE TEST

- A. Installation on New Mains The fire hydrant shall be pressure tested with adjacent lines.
- B. Installation on existing mains The fire hydrant shall be isolated from the existing main by closing the tapping valve and testing in accordance with the requirement described in "Disinfection of Potable Lines".

3.7 DISINFECTION

- A. Installation on New Mains The hydrant shall be disinfected with adjacent lines.
- B. Installation on Existing Mains The hydrant shall be isolated from the existing main by closing the tapping valve and disinfecting with the requirement described in "Disinfection of Potable Lines".

3.8 PAINTING

Fire hydrants shall be painted with two coats of Pittsburgh, Koppers, Tnemec or approved equal, in accordance with the requirements of the Engineer.

3.9 GATE VALVE AND BOX

The gate valve shall be installed 2'-6" from the centerline of the fire hydrant, and with the provisions of "Gate Valves".

3.10 PIPE SPOOL

The spool shall be installed between the hydrant and gate valve (in new mains) or tapping valves (in existing mains). Bedding shall be identical to requirements for the water main (in new mains) or the applicable requirements of the section "Water Pipe and Fittings" in existing mains.

SECTION 10207 - HYDROSTATIC TESTING OF POTABLE LINES

PART 1 - GENERAL

1.1 DESCRIPTION

The work of this section shall consist of testing water lines and related valves and fittings.

1.2 QUALITY ASSURANCE

- A. Flow meters shall record the actual volume plus or minus 2 percent.
- B. Test gauges shall be ANSI B40.1, Grade 2A. Dial range shall be twice the required test pressure.

1.3 JOB CONDITIONS

- A. Testing shall not be performed until each system has been flushed and cleaned.
- B. Potable water lines shall be pressure tested before disinfecting.

PART 2 - MATERIALS

Not Applicable

PART 3 - EXECUTION

- 3.1 GENERAL
 - A. Provide test equipment including test pumps, gauges, instruments, and other equipment required.
 - B. Water shall be furnished by the owner.
 - C. All testing shall be performed in the presence of the Engineer or Inspector.
 - D. Test time will be accrued only while full test pressure is on system.
 - E. For buried service, lines shall be tested after backfill and proper compaction of trenches.

3.2 PROCEDURE

- A. Test shall be in accordance with AWWA C600.
- B. The pipe shall be slowly filled with water. All air shall be eliminated by installing taps, if necessary, at the highest elevation and afterwards tightly plugged.

- C. Raise the internal pressure by pumping in water to 150 psi for a duration of two hours.
- D. Maintain the test pressure by pumping in metered quantities of makeup water. Leakage should not exceed ten gallons per inch diameter per mile of pipe per 24 hours.

Leakage is defined as the quantity of water supplied into the new pipe, or valved section of it, necessary to maintain the specified test pressure.

E. Maintain test pressure within 5 psi for the 2 hour duration.

3.3 ACCEPTANCE

- A. No pipe installation shall be accepted until the leakage does not exceed the amount specified in 3.2 D above.
- B. Replace leaking fittings, valves, lengths, of pipe or other appurtenances.
- C. Do not use paints, asphalts, tars, or other types of pipe compounds to eliminate leaks.

SECTION 10208 - DISINFECTION OF POTABLE LINES

PART 1 - GENERAL

1.1 DESCRIPTION

The work of this section consist of disinfecting all portions of the water system, including interior and buried piping, valves, stops, and any portion of the existing connecting system that might have become contaminated during construction activities.

1.2 SUBMITTALS

Submit plan for gathering, transporting, and disposing of chlorine solutions and surplus materials after use.

1.3 QUALITY ASSURANCE

All mains and appurtenances shall be disinfected in accordance with ODEQ's rules for Public Water Supply Operation OAC 252:630.

PART 2 - MATERIALS

2.1 CHLORINE COMPOUNDS

Chlorine-bearing compounds such as calcium hypochlorite or sodium hypochlorite may be used. These compounds must be able to produce approximately 65 percent available chlorine.

2.2 CHLORINE SOLUTIONS

Mixtures of liquid chlorine and water or gaseous chlorine and water may be used. Mixtures shall be applied by means of a solution-feed chlorinating device.

PART 3 - EXECUTION

Water with 50 to 100 parts per million of chlorine shall be allowed to stand 24 hours and develop a residual of at least 10 parts per million of chlorine.

PLANS FOR WATER LINE REPLACEMENT **KINGFISHER COUNTY RWD #3**

PREPARED BY:

RICHARD P. BROWN, P.E.

DATE

APPROVED BY:

CHAIRMAN



P.O. Box 579 Stillwater, Oklahoma 74076-0579 PHONE: (405) 372-4848 FAX: (405) 372-7055 CA NO. 2659

DATE







NOTES:

- The Contractor is responsible for obtaining all permits necessary to complete 1. construction.
- 2. All construction to meet most current Oklahoma Department of Environmental Quality Standards.
- Existing paving disturbed during construction of utilities must be repaired to ODOT 3. standards.
- Utility trenches which cross existing or proposed paving must be compacted to 4. 95% standard proctor density.
- 5. All PVC pipe to be SDR-21 Class 200 unless otherwise instructed by the Engineer. In no case shall the wall thickness of the pipe be less than 0.09 inches.
- All Ductile Iron pipe shall be class 50 unless otherwise instructed by the Engineer. 6.
- 7. All PVC push-on Joints shall be integrally formed, rubber Gasket.
- 8. A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe.
- 9. All water mains shall be covered with atleast 30 inches of earth or with sufficient insulation to prevent freezing.
- 10. All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints that prevent movement.
- 11. Water mains shall be pressure and leakage tested in accordance with AWWA C600. Leakage shall not exceed ten gallons per inch diameter per mile of pipe per 24 hours at 150 psi testing pressure.
- 12. All mains and appurtenances shall be disinfected in accordance with current AWWA standards. Following disinfection in accordance with AWWA standards, obtain safe bacteriological samples on 2 consecutive days before placing the water line into service.
- 13. Water mains shall be located at least 10 feet horizontally from any existing or proposed sewer lines, storm sewers, raw water lines, oil and gas lines, and buried electric lines.
- 14. PVC water lines shall be located at least 50 feet horizontally from any gasoline storage tank.
- 15. Water lines shall be located at 15 feet from all parts of septic tanks and absorption fields, or other sewage treatment and disposal systems.
- 16. Water mains crossing sewers shall be laid to provide a minimum vertical distance of 24 inches between the outside of the water main and the outside of the sewer.
- 17. Bores with HDPE pipe must be in the ground for at least 24 hours prior to connection to PVC pipe.
- 18. Best Management Practices will be included in the contract documents regarding soil erosion. Silt fences will be required as necessary at the construction site. Bare Ground will be returned to grass by seeding or slab sodding.









UNLESS OTHERWISE SPECIFIED, TYPE III SHALL BE USED FOR P.V.C. AND FOR DUCTILE IRON, EXCEPT WHEN ROCK AND / OR STONES ARE ENCOUNTERED THEN TYPE II SHALL BE USED. PIPE SHALL BE LAID IN ACCORDANCE WITH CURRENT AWWA STANDARDS. LOCALLY EXCAVATED MATERIALS MAY BE USED IN ROCK AREA IF THE SOIL IS FREE OF STONES.

TRENCH SCHEDULE

PIPE DIAMETER IN INCHES	TRENCH WIDTH IN FEET
2	2.0
3	2.0
4	2.0
6	2.0
8	2.2
10	2.2
12	2,2
15	2.6
18	2.9
21	3.3
24	3.8








SECTION FOR VERTICAL BENDS

45 DEG., 22 1/2 DEG., 11 1/4 DEG. BENDS



PLAN



HORIZONTAL-CONCRETE THRUST BLOCKING

SECTION C-C 90 DEG. BENDS



B

SECTION B-B

TEES



PLAN

PLUGS

l	1'-6"	151	11"	8"	1*-4**	2'-1"



1'-1" 1"-0"

SECTION D-D

DISTURBED EARTH

6

24

2*-0**

1'-1" 1'-4" 1'-8"







INSTALLATION OF 2-WAY FIRE HYDRANT ON NEW MAIN

	DETAILS	KINGFISHER RWD #3		
TRANT TEE	BBrown Engineering, P.C.ECivil & Environmental Engineering	PHONE: (405) 372-4848 FAX: (405) 372-7055 P.O. Box 579 Stillwater, Oklahoma 74076-0579 CA NO. 2659		
	FILENAME			
	SCALE	Details		
		ASNOTED		
	PLOT DATE			
		03-17-25		
	PROJECT NO.			
		PROJ1463		
	SHEET NUMBER			
	6	OF 6		