

CITY OF YANKTON

SOUTH DAKOTA

PROJECT MANUAL

SPECIFICATIONS AND BID FORM

FOR

**Karen Drive from Peninah St. to Valley Rd.
Bradley Street from 19th St. to Karen Dr.
Valley Road from Burleigh St. to 21st St.
Watermain Replacement**

Project # 2023-008

CITY OF YANKTON, OWNER
PO BOX 176
YANKTON, SOUTH DAKOTA 57078



BID SUBMITTAL TO:
CITY OF YANKTON
ATTN: CITY FINANCE OFFICER
PO BOX 176
YANKTON, SOUTH DAKOTA 57078

BID CLOSING & OPENING:
May 23, 2024
3:00 P.M.

BID AWARD
June 10, 2024
AFTER 7:00 P.M.

CITY OF YANKTON
PROJECT MANUAL

TABLE OF CONTENTS
FOR

**Karen Drive from Peninah St. to Valley Rd.
Bradley Street from 19th St. to Karen Dr.
Valley Road from Burleigh St. to 21st St.
Watermain Replacement**

BIDDING DOCUMENTS:

Advertisement for Bids
Instruction to Bidders
State Revolving Fund (SRF) General Conditions
Bid Proposal
Bid Bond
Bidders Statement of Qualifications

CONTRACT DOCUMENTS:

Notice of Award
Agreement
Payment Bond
Performance Bond
Notice to Proceed
Change Order Form
Waiver and Release of Lien

CONTRACT CONDITIONS:

General Conditions
Supplementary General Conditions
Measurement and Payment

TECHNICAL SPECIFICATIONS:

Technical Information and Requirements
 Section 203 – Excavation, Trenching & Backfilling
 Section 210 – Sewer Construction for Sanitary Sewer Mains, Service Lines and Appurtenances
 Section 501 – Water Distribution System

STANDARD PLATES:

As Applicable

CONSTRUCTION DRAWINGS TITLED:

2023 - Karen Drive from Peninah St. to Valley Rd. – Bradley St. from E. 19th St. to Karen Dr. -
Valley Rd. from Burleigh St. to 21st St. – Watermain Replacement

Publishing Dates: April 25 & 30, 2024

ADVERTISEMENT FOR BIDS

Notice is hereby given that the City of Yankton, South Dakota, will receive bids for the **Karen Drive, Bradley Street and Valley Road watermain replacement.**

The project includes the following major construction items:

Removal of Asphalt Pavement	9028	SY
6" PVC Water Main C-900	2822	LF
6" Aggregate Base Course	9308	SY
4" Sidewalk	4728	SF
And Other Miscellaneous and Landscape Items		

Owner reserves the right to make the award based on the lowest responsive bid.

Sealed bids will be received for the City Commission of the City of Yankton, South Dakota, at the office of the City Finance Officer of said City until 3:00 PM or may be hand delivered to the place of opening at 3:00 PM on the 23rd day of May, at which time they will be publicly opened and read in the Second Floor Meeting Room A, of City Hall, located at 416 Walnut Street in Yankton, South Dakota. Disposition of said bids is expected to be held on the 10th day of June, after 7:00 PM, in the Career Manufacturing Technical Education Academy, at 1200 W. 21st Street, Yankton, South Dakota.

Drawings, Specifications and Contract Documents may be obtained at the City Engineer's Office, 416 Walnut Street, Yankton, SD, 57078, or by going to: <http://www.cityofyankton.org/how-do-i/bid-rfp-posts-list>. With any questions please call 605-668-5251.

The Bidder to whom the contract is awarded will be required to furnish a construction performance bond and a construction payment bond to the OWNER in the amount of one hundred percent (100%) of the contract award for each bond, in conformance with the requirements of the Contract Documents. The construction performance bond and construction payment bond shall remain in full force until the completion of the Contract as specified in the General Conditions.

Each Bid must be accompanied by a certified check, cashier's check or draft in the amount of 5% of the base bid and all add alternates and drawn on a State or National Bank or a 10% bid bond issued by a surety authorized to do business in the State of South Dakota and made payable to the City of Yankton.

The bid guarantee will be retained by the OWNER as liquidated damages if the successful bidder refuses or fails to enter into an Agreement within ten (10) days after Notice of Award or fails at time of executing the contract to furnish a construction performance bond and construction payment bond guaranteeing the faithful performance of the work.

Bids may not be withdrawn after the time fixed for opening them. The OWNER reserves the right to reject any and all bids, and to waive any irregularities therein.

Adam Haberman, Public Works Director
City of Yankton, South Dakota

INSTRUCTIONS TO BIDDERS

BIDS will be received by the Finance Officer of the CITY OF YANKTON, South Dakota (herein called the "OWNER"), at the City Finance Office until 3:00 P.M. on the date specified in the Notice to Bidders or the BIDS may be hand delivered to the Second Floor Meeting Room in City Hall at 416 Walnut Street, Yankton, South Dakota until 3:00 P.M. on the date specified in the Notice to Bidders, whereupon they will be publicly opened and read aloud.

Each BID must be submitted in a sealed envelope, addressed to The Board of City Commissioners, c/o City Finance Officer, Yankton, South Dakota. Each sealed envelope containing a BID must be plainly marked on the outside with the name of the project for which the BID is submitted, and the name of the BIDDER and the bidder's address. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the City of Yankton, 416 Walnut Street, Yankton, South Dakota 57078.

All BIDS must be made on the required BID forms. 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. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within thirty (30) 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 PROJECT. 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 him from fulfilling any of the conditions of the contract.

Each BID must be accompanied by a certified check, cashier's check or draft, for five percent of the amount of the BID, such check to be certified or issued by either a state or a national bank and payable to the OWNER, or in lieu thereof a BID BOND for ten percent of the amount of the BID, such bond to be issued by a surety authorized to do business in the State of South Dakota payable to the OWNER, as a guaranty that such BIDDER will enter into a contract with the OWNER, in accordance with the terms of such letting and BID in case such BIDDER be awarded the contract.

As soon as the BID has been awarded, the OWNER will return the BONDS of all unsuccessful BIDDERS. The BID BOND of the successful BIDDER will be retained until the CONTRACT, PAYMENT BOND and the PERFORMANCE BOND have been executed and approved, after which it will be returned.

A PERFORMANCE BOND and a PAYMENT 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 or PAYMENT BONDS and PERFORMANCE BONDS must file with each BOND a certified and effective dated copy of their power of attorney.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the PERFORMANCE BOND, PAYMENT BOND and all required insurance certificates within ten (10) calendar days from the date when the NOTICE OF AWARD is delivered to the BIDDER. The NOTICE OF AWARD shall be accompanied by the necessary Agreement and BOND forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may at his option 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) days of receipt of acceptable insurance certificates and Agreement 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.

The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the Agreement by the OWNER. 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.

The OWNER may make such investigations as he deems necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER 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.

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 his BID.

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

Pre-bid inspection trip for prospective BIDDERS is not proposed for this project.

STATE REVOLVING FUND (SRF)

GENERAL CONDITIONS

with

DAVIS-BACON & American Iron and Steel Provisions

South Dakota
Department of Environment
and Natural Resources

These provisions must be included in the specifications for all Clean Water SRF
and Drinking Water SRF projects.

September 2020

Table of Contents

Guidance for Utilization of Disadvantaged Business Enterprises	DBE – 1
DBE Subcontractor Solicitation Information Form	DBE – 6
DBE Subcontractor Participation Form (Form 6100-2)	DBE – 7
DBE Subcontractor Performance Form (Form 6100-3)	DBE – 8
DBE Subcontractor Utilization Form (Form 6100-4)	DBE – 9
Equal Employment Opportunity and Affirmative Action Requirements	EEO – 1
DOL Notification Form	EEO – 7
Certification Regarding Debarment, Suspension and Other Responsibility Matters	Debar – 1
Prohibition Against Listed Violated Facilities	PALVF – 1
Williams-Steiger Occupational Safety and Health Act of 1970	OSHA – 1
Discovery of Archaeological and Other Historical Items	Archaeol – 1
Davis-Bacon and Related Acts	DB - 1
American Iron and Steel	AIS-1
Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment	PCTVSE - 1

GUIDANCE FOR UTILIZATION OF DISADVANTAGED BUSINESS ENTERPRISES REQUIREMENTS OF 40 CFR §33.

A. REQUIREMENTS

1. The recipient and prime contractor will exercise good faith efforts to attract and utilize small, minority, and women's business enterprises primarily through outreach, recruitment, and race/gender neutral activities; at a minimum, fulfillment of the six affirmative steps set forth below:
 - a. Including disadvantaged businesses on solicitation lists;
 - b. Assuring that disadvantaged businesses are solicited whenever they are potential sources;
 - c. Dividing total requirements, when economically feasible, into small tasks or quantities to permit maximum participation by disadvantaged businesses;
 - d. Establishing delivery schedules, when the requirements of the work permit, which will encourage participation by disadvantaged businesses;
 - e. Using the services of the Small Business Administration and the Office of Minority Business Enterprise of the U.S. Department of Commerce, as appropriate; and
 - f. Require a. through e. to be taken if subcontracts are awarded.

B. FAIR SHARE OBJECTIVE

1. The fair share objective for this project is 1 % MBE's and 4 % WBE's.

C. DEFINITIONS

1. Disadvantaged Business Enterprise (DBE) is a business concern which meets the qualifications of a Minority Business Enterprise (MBE), Women's Business Enterprise (WBE), Small Business (SBE), or Small Business in a Rural Area (SBRA).
2. Minority Business Enterprise (MBE) is a business concern which is:
 - a. Certified as socially and economically disadvantaged by the Small Business Administration;
 - (1) Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities.
 - (2) Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free enterprise system is impaired due to diminished capital and credit opportunities, as compared to others in the same business area who are not socially disadvantaged. In determining the degree of diminished credit and capital opportunities, the Small Business Administration shall consider, but not be limited to, the assets and net worth of such socially disadvantaged individuals. Individuals who certify that they are members of named groups (Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Asian-Indian Americans), are to be considered socially and economically disadvantaged. Economically and socially disadvantaged individuals are deemed to include women.
 - b. Certified as a minority business enterprise by a State or Federal agency; and

- c. An independent business concern which is at least 51 percent owned and controlled by minority group member(s).

- (1) A minority group member is an individual who is a citizen of the United States and one of the following:

- (a) Black American;
- (b) Hispanic American (with origins from Puerto Rico, Mexico, Cuba, South or Central America)
- (c) Native American (American Indian, Eskimo, Aleut, native Hawaiian); or
- (d) Asian-Pacific American (with origins from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the U.S. Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, Taiwan or the Indian subcontinent).

- (2) In order to satisfy this third criteria of the MBE definition, the minority ownership's interest must be real, substantial and continuing. Such interest is characterized by:

- (a) Risk of loss/share of profit commensurate with the proportional ownership; and
- (b) Receipt of the customary incidents of ownership, such as compensation (i.e., salary and other personnel compensation).

- (3) A minority owner must have and exercise control of the business decisions. Characteristics of control include, but are not limited to:

- (a) Authority to sign bids and contracts;
- (b) Decisions in price negotiations;
- (c) Incurring liabilities for the firm;
- (d) Final staffing decisions;
- (e) Policy-making; and
- (f) General company management decisions.

- (4) Only those firms performing a useful business function according to custom and practice in the industry, are qualified as MBEs. Acting merely as a passive conduit of funds to some other firm where such activity is unnecessary to accomplish the project does not constitute a "useful business function according to custom and practice in the industry." The purpose of this approach is to discourage the use of MBE "fronts" and limit the creation of an artificial supplier and broker marketplace.

3. Women's Business Enterprise (WBE) is a business which is certified as such by a State or Federal agency, or which meets the following definition:

"A women's business enterprise is an independent business concern which is at least 51 percent owned by a woman or women, who also control and operate it. Determination of whether a business is at least 51 percent owned by a woman or otherwise qualified WBE which is 51 percent owned by a married woman in a community property State will not be disqualified because her husband has a 50 percent interest in her share. Similarly, a business which is 51 percent owned by a married man and 49 percent owned by an

unmarried woman will not become a qualified WBE by virtue of his wife's 50 percent interest in his share of the business."

As in the case of a MBE, only United States citizens will be deemed to be WBEs. Similar to the MBE criteria, WBE should meet the criteria cited in subparagraphs B.1.c.(2), (3), and (4).

4. Fair Share or Fair Share Objective A fair share or a fair share objective is an amount of funds reasonably commensurate with the total project funding and the availability of qualified MBEs and WBEs, taking into account experience on EPA-funded projects and other comparable projects in the area. A fair share objective does not constitute an absolute requirement, but a commitment on the part of the bidder to exercise good faith efforts as defined in this section to use MBEs and WBEs to achieve the fair share objective.
5. Small Business (SBE) Any business entity, including its affiliates, that is independently owned and operated, and not dominant in its field of operations in which it is bidding on Government contracts, and qualified as a small business under the criteria and size standards set forth in 13 CFR Part 121.
6. Small Business in a Rural Area A small business in a rural area (SBRA) is a business entity meeting the definition of a small business, and is located and conducts its principal operations in a geographical area (county) listed in the Small Business Administration's Listing of Non-Metropolitan Counties by State.
7. Recipient A party receiving SRF financial assistance.
8. Project The scope of work for which an SRF loan is awarded.
9. Bidder A party seeking to obtain a contract with a recipient through a competitive, advertised, sealed bid process.
10. Offeror A party seeking to obtain a contract with a recipient through a negotiative procurement process.
11. Prime Contractor A party that has obtained a contract with a recipient through a competitive, advertised, sealed bid process.
12. Good Faith Efforts Good faith efforts by a recipient, prime contractor, and/or bidder/offeror means efforts to attract and utilize DBEs primarily through outreach, recruitment, and race/gender neutral activities. The following are examples of activities to assist recipients, prime contractors and/or bidders/offerors to comply with good faith efforts.
 - a. Include qualified DBEs on solicitation lists.
 - (1) Maintain and update a listing of qualified DBEs that can be solicited for supplies, construction and/or services.
 - (2) Provide listings to all interested parties who requested copies of the bidding or proposing documents.
 - (3) Contact appropriate sources within your geographic area and State to identify qualified DBEs for placement on your minority and women's business listings.
 - (4) Utilize other DBE listings such as those of the State's Minority Business Office, the Small Business Administration, Minority Business Development Agency, US EPA- Office of Small Business Programs and the Department of Transportation.
 - (5) Have the State environmental agency personnel review this solicitation list.

b. Assure that DBEs are solicited.

- (1) Conduct meetings, conferences, and follow-ups with DBEs, small, minority and/or women's business associations, minority media, etc., to inform these groups of opportunities to provide supplies, services, and construction.
- (2) MBE Utilization is facilitated if the recipient or prime contractor advertises through the minority media. Such advertisements may include, but are not limited to, contracting and subcontracting opportunities, hiring and employment, or any other matter related to the project.
- (3) Conduct pre-bid, pre-solicitation, and post-award conferences to ensure that consultants, suppliers, and builders solicit DBEs.
- (4) Provide bidders and offerors with listings of qualified DBEs and establish that a fair share of contracts/procurements should be awarded to these groups.
- (5) Advertise in general circulation, trade publications, State agency publications of identified source, disadvantaged business focused media, etc., concerning contracting opportunities on your projects. Maintain a list of disadvantaged business-focused publications that may be utilized to solicit MBEs or WBEs.
- (6) Provide interested DBEs with adequate information about plans, specifications, timing and other requirements of the proposed projects.
- (7) Provide DBE trade organizations with succinct summaries of solicitations.
- (8) Notify DBEs of future procurement opportunities so that they may establish bidding solicitations and procurement plans.

c. Divide total requirements when economically feasible, into small tasks or quantities to permit maximum participation of DBEs.

- (1) Perform an analysis to identify portions of work that can be divided and performed by qualified DBEs.
- (2) Scrutinize the elements of the total project to develop economically feasible units of work that are within the bonding range of DBEs.
- (3) Analyze bid packages for compliance with the good faith efforts to afford DBEs maximum participation.

d. Establish delivery schedules, where requirements of the work permit, which will encourage participation by DBEs.

- (1) Consider lead times and scheduling requirements often needed by DBE participation.
- (2) Develop realistic delivery schedules which may provide for greater DBE participation.

e. Use the services and assistance of the Small Business Administration and the Minority Business Development Agency of the US Department of Commerce, as appropriate.

- (1) Use the services of outreach programs sponsored by the Minority Business Development Agency and/or the Small Business Administration to recruit bona fide firms for placement on DBEs' bidders lists to assist these firms in the development of bid packaging.

- (2) Seek out Minority Business Development Centers (MBDCs) to assist recipients and prime contractors in identifying MBEs for potential work opportunities on this project.

D. ADDITIONAL CONTRACT PROVISIONS

1. The prime contractor must pay its subcontractors for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the owner.
2. The prime contractor must notify the owner in writing prior to any termination of a DBE subcontractor for convenience.
3. If a DBE subcontractor fails to complete work under the subcontract for any reason, the prime contractor must employ the good faith efforts of soliciting a replacement subcontractor, even if the fair share objectives have already been achieved.
4. Each procurement contract signed by an EPA financial recipient, including those for an identified loan under an EPA financial assistance agreement capitalizing a revolving loan fund, must include the following term and condition:

The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

E. REPORTING

1. Bidders/offerors shall demonstrate compliance with good faith efforts in order to be deemed responsible. To demonstrate compliance, the "DBE Subcontractor Solicitation Sheet" (pg. DBE - 6) shall be submitted as part of its bid or proposal package. Information shall be included for each DBE subcontractor contacted by the bidder/offeror, not just those used to meet the fair share objective.
2. The prime contractor must distribute DBE Program Subcontractor Participation Form (Form 6100-2) to all of its DBE subcontractors. The subcontractors can submit completed forms to the South Dakota Department of Environment and Natural Resources, Water Resources Assistance Program.
3. The prime contractor must have its DBE subcontractors complete DBE Program Subcontractor Performance Form (Form 6100-3) and should include completed forms in its bid or proposal package.
4. The prime contractor must complete DBE Program Subcontractor Utilization Form (Form 6100-4) which should be submitted as part of its bid or proposal package.
5. Form 6100-3 and Form 6100-4 must be submitted by the apparent low-bidder within ten calendar days of the bid opening. Failure to submit this information will be viewed as a non-responsive bid.

DBE SUBCONTRACTOR SOLICITATION INFORMATION					
PROJECT NAME:					
Subcontractor Name and Telephone Number	MBE or WBE	Description of Work Offered	Date of Phone Follow-up & Person Contacted	Amount of Bid or Reason for not Quoting	Bid Accepted or Rejected? Include Reason for Rejection

This information is true and correct to the best of my knowledge

Contractor Name, Address and Telephone Number

This form shall be submitted as part of the contractor's bid.

Signature Title Date

Disadvantaged Business Enterprise
Program DBE Subcontractor
Participation Form

NAME OF SUBCONTRACTOR¹	PROJECT NAME
ADDRESS	CONTRACT NO.
TELEPHONE NO.	EMAIL ADDRESS
PRIME CONTRACTOR NAME	

Please use the space below to report any concerns regarding the above SRF-funded project (e.g., reason for termination by prime contractor, late payment, etc.).

CONTRACT ITEM NO.	ITEM OF WORK OR DESCRIPTION OF SERVICES RECEIVED FROM THE PRIME CONTRACTOR	AMOUNT SUBCONTRACTOR WAS PAID BY PRIME CONTRACTOR
<div style="display: flex; justify-content: space-between;"> Subcontractor Signature Title/Date </div>		

¹Subcontractor is defined as a company, firm, Joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an SRF award of financial assistance.

FORM 6100-2 (DBE Subcontractor Participation Form)

**Disadvantaged Business Enterprise Program
DBE Subcontractor Performance Form**

NAME OF SUBCONTRACTOR¹		PROJECT NAME	
ADDRESS		BID/PROPOSAL NO.	
TELEPHONE NO.		E-MAIL ADDRESS	
PRIME CONTRACTOR NAME			
CONTRACT ITEM NO.	ITEM OF WORK OR DESCRIPTION OF SERVICES BID TO PRIME	PRICE OF WORK SUBMITTED TO PRIME CONTRACTOR	
<p>Currently certified as an MBE or WBE under EPA's DBE Program? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>_____ Signature of Prime Contractor</p> <p>_____ Print Name</p> <p>_____ Signature of Subcontractor</p> <p>_____ Print Name</p> </div> <div style="width: 45%;"> <p>_____ Date</p> <p>_____ Title</p> <p>_____ Date</p> <p>_____ Title</p> </div> </div>			

¹Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an SRF award of financial assistance.

**Disadvantaged Business Enterprise Program
DBE Subcontractor Utilization Form**

BID/PROPOSAL NO.	PROJECT NAME
NAME OF PRIME BIDDER/PROPOSER	E-MAIL ADDRESS
ADDRESS	
TELEPHONE NO.	FAX NO.

The following subcontractors will be used on this project :			
COMPANY NAME, ADDRESS, PHONE NUMBER, AND E-MAIL ADDRESS	TYPE OF WORK TO BE PERFORMED	ESTIMATED DOLLAR AMOUNT	TYPE OF FIRM? (Print MBE, WBE or None below)
I certify under penalty of perjury that the forgoing statements are true and correct. In the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302(c)			
Signature of Prime Contractor		Date	
Print Name		Title	

'Subcontractor is defined as a company firm, joint venture, or individual who enters into an agreement with a contractor to provide service, pursuant to an SRF award of financial assistance.

FORM 6 100-4 (DBE Subcontractor Utilization Form)

**EQUAL EMPLOYMENT OPPORTUNITY and AFFIRMATIVE ACTION REQUIREMENTS on
FEDERALLY ASSISTED CONSTRUCTION CONTRACTS**

**Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity
(Executive Order 11246)**

1. The Offer's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area as follows:

Goals for minority participation in each trade - _____

(See Appendix A for goals by county)

Goals for female participation in each trade - 6.9%

As used in this notice, and in the contract resulting from this solicitation, the "covered area" is
_____ County.

These goals are applicable to all the contractor's construction work (whether or not it is Federal or Federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number for the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed. A form is provided on page EEO - 7 that the contractor may use for this purpose.

This notice shall be included in, and shall be a part of, all solicitations for offers and bids on all federal and federally assisted construction contracts or subcontracts.

EQUAL OPPORTUNITY CLAUSES

The Equal Opportunity Clause published at 41 CFR Part 60-1.4(b) is required to be included in, and is part of, all nonexempt federally assisted construction contracts and subcontracts. The Equal Opportunity Clause shall be considered to be a part of every contract and subcontract required by the regulations in this part to include such a clause, whether or not it is physically incorporated in such contracts.

In addition to the clauses described above, all federal contracting officers, all applicants, and all non-construction contractors, as applicable, shall include the specifications set forth in this section in all federal and federally assisted construction contracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to §60-4.6 of this part and in construction subcontracts in excess of \$10,000 necessary in whole or in part to the performance of non-construction Federal contracts and subcontracts covered under the Executive Order.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:

- a. "Covered Area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal Social Security number used on the employer's quarterly Federal Tax Return, U.S. Treasury Department Form 941.
- d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands);
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area, (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The contractor shall implement the specific affirmative action standards provided in paragraphs (7)(a) through (p) of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the FEDERAL REGISTER in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign two or more women to each construction project. The contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the areas which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under (7)(b) above.

f. Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7)(a) through (p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be

asserted as fulfilling any one or more of its obligations under (7)(a) through (p) of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally, the contractor may be in violation of the Executive order if a specific minority group of women is under-utilized).

10. The contractor shall not use the goals and timetables of affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The contractor shall not enter into any subcontract with any person or firm debarred from government contracts pursuant to Executive Order 11246.

12. The contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph (7) of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

APPENDIX A

GOALS FOR MINORITY PARTICIPATION ON EACH TRADE

Counties	Goal
Aurora, Beadle, Brookings, Brule, Charles Mix, Davison, Douglas, Gregory, Hand, Hanson, Hutchinson, Jerauld, Kingsbury, Lake, Lincoln (excluding Sioux Falls), McCook, Miner, Moody, Sanborn, Turner	0.8
Bon Homme, Clay, Minnehaha (including all of Sioux Falls), Union, Yankton	1.2
Brown, Clark, Codington, Day, Deuel, Edmunds, Faulk, Grant, Hamlin, McPherson, Marshall, Roberts, Spink	1.3
Meade, Pennington	3.4
Bennett, Buffalo, Butte, Campbell, Corson, Custer, Dewey, Fall River, Haakon, Harding, Hughes, Hyde, Jackson, Jones, Lawrence, Lyman, Mellette, Perkins, Potter, Shannon, Stanley, Sully, Todd, Tripp, Walworth, Ziebach	7.9

CONTRACTOR'S NAME, ADDRESS & TELEPHONE NUMBER

Contractor Employer ID Number: _____

Return to:

Joan Ford, Regional Director
US Department of Labor
Federal Building, Room 840
525 South Griffin St.
Dallas, TX 75202

CONTRACT INFORMATION

PROJECT AND LOCATION:				
Dollar Amount of Contract	Estimated Start Date	Estimated Completion Date	Contract No.	Geographical Area (County, State)

NOTIFICATION OF SUBCONTRACTS AWARDED (>\$10,000)

Subcontractor's Name Address, and Phone Number	Employer ID Number of Subcontractor	Estimated \$ Amount of Subcontract	Estimated Start Date	Estimated Completion Date

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

A. INSTRUCTIONS

Under Executive Order 12549, an individual or organization debarred or excluded from participation in Federal assistance or benefit programs may not receive any assistance award under a Federal program, or a sub-agreement thereunder for \$25,000 or more. The status of prospective individuals or organizations can be checked at:

<http://epls.arnet.gov/>

Accordingly, each prospective recipient of an EPA grant, loan, or cooperative agreement and any contract or sub-agreement participant thereunder must complete the attached certification or provide an explanation why they cannot complete the certification. For further details, see 40 CFR 32.510, Participants Responsibilities.

B. WHERE TO SUBMIT

A prospective prime contractor must submit a completed certification or explanation to the project owner for the project. Each prospective subcontractor must submit a completed certification or explanation to the prime contractor for the project.

C. HOW TO OBTAIN FORMS

This form may be reproduced as necessary. If needed, additional forms may be obtained from the Department of Environment and Natural Resources.

SRF Project Number

United States Environmental Protection Agency
Washington, DC 20460

**Certification Regarding
Debarment, Suspension, and Other Responsibility Matters**

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

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

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

Typed Name & Title of Authorized Representative

Signature of Authorized Representative

Date

_____ I am unable to certify to the above statements. My explanation is attached.

PROHIBITION AGAINST LISTED VIOLATED FACILITIES

A. REQUIREMENTS

- (1) To comply with all the requirements of section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et seq., as amended by Pub. L. 92-604) and section 308 of the Clean Water Act (33 U.S.C. 1251, as amended), respectively, which relate to inspection, monitoring, entry, reports, and information, as well as other requirements specified in section 114 and section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this contract.
- (2) That no portion of the work required by this prime contract will be performed in a facility listed on the Environmental Protection Agency list of violating facilities on the date when this contract was awarded unless and until the EPA eliminates the name of such facility or facilities from the listing.
- (3) That the best efforts to comply with clean air and clean water standards at the facilities in which the contract is being performed.
- (4) To insert the substance of the provisions of this clause, including this paragraph (4), in any nonexempt subcontract.

B. DEFINITIONS

- (1) Air Act means the Clean Air Act, as amended (42 U.S.C. 1857 et seq.).
- (2) Water Act means the Clean Water Act, as amended (33 U.S.C. 1251 et seq.).
- (3) Clean Air Standards means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted under the Air Act or Executive Order 11738, an applicable implementation plan as described in section 110 (d) of the Air Act (42 U.S.C. 1857c-5(d)), an approved implementation procedure or plan under section 111 (c) or section 111(d), or an approved implementation procedure under section 112(d) of the Air Act (42 U.S.C. 1857c-7(d)).
- (4) Clean Water Standards means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated under the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a State under an approved program, as authorized by section 402 of the Water Act (33 U.S.C. 1342), or by a local government to ensure compliance with pretreatment regulations as required by section 307 of Water Act (33 U.S.C. 1317).
- (5) Compliance means compliance with clean air or water standards. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency in accordance with the requirements of the Air Act or Water Act and regulations.
- (6) Facility means any building, plant, installation, structure, mine, vessel, or other floating craft, location, or site of operations, owned, leased, or supervised by a contractor or subcontractor, to be used in the performance of a contract or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be a facility except where the Director, Office of Federal Activities, Environmental Protection Agency, determines that independent facilities are located in one geographical area.

WILLIAMS-STEIGER OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

A. AUTHORITY

- (1) The contractor is subject to the provisions of the Williams-Steiger Occupational Safety and Health Act of 1970.
- (2) These construction documents and the joint and several phases of construction hereby contemplated are to be governed, at all times, by applicable provisions of the Federal law(s) , including but not limited to the latest amendment of the following:
 - a. Williams-Steiger Occupational Safety and Health Act of 1970, Public Law 94-596;
 - b. Part 1910 - Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations;
 - c. Part 1926 - Safety and Health Regulations for Construction, Chapter XVII of Title 29, Code of Federal Regulations.

B. SAFETY AND HEALTH PROGRAM REQUIREMENTS

- (1) This project, its prime contractor and its subcontractors, shall at all times be governed by Chapter XVII of Title 29, Code of Federal Regulations, Part 1926 - Safety and Health Regulations for Construction (29 CFR 22801), as amended to date.
- (2) To implement the program and to provide safe and healthful working conditions for all persons, general project safety meetings will be conducted at the site at least once each month during the course of construction, by the construction superintendent or his/her designated safety officer. Notice of such meeting shall be issued not less than three (3) days prior, stating the exact time, location, and agenda to be included. Attendance by the owner, architect, general foreman, shop steward(s), and trades, or their designated representatives, witnessed in writing as such, shall be mandatory.
- (3) To further implement the program, each trade shall conduct a short gang meeting, not less than once a week, to review project safety requirements mandatory for all persons during the coming week. The gang foreman shall report the agenda and specific items covered to the project superintendent, who shall incorporate these items in his/her daily log or report.
- (4) The prime contractor and all subcontractors shall immediately report all accidents, injuries, or health hazards to the owner and architect, or their designated representatives, in writing. This shall not obviate any mandatory reporting under the provisions of the Occupational Safety and Health Act of 1970.
- (5) This program shall become a part of the contract documents and the contract between the owner and prime contractor, prime contractor and all subcontractors, as though fully written therein.

DISCOVERY OF ARCHAEOLOGICAL AND OTHER HISTORICAL ITEMS

In the event of an archaeological find during any phase of construction, the following procedure will be followed:

- (1) Construction shall be halted, with as little disruption to the archaeological site as possible.
- (2) The Contractor shall notify the Owner who shall contact the State Historical Preservation Officer.
- (3) The State Historical Preservation Officer may decide to have an archaeologist inspect the site and make recommendations about the steps needed to protect the site, before construction is resumed.
- (4) The entire event should be handled as expediently as possible in order to hold the loss in construction time to a minimum while still protecting archaeological finds.

A similar procedure should be followed with regard to more recent historical resources. Should any artifacts, housing sites, etc., be uncovered, the same procedure should be followed as for an archaeological find.

In the event archaeological/historical data are evaluated to meet National Register criteria, the Advisory Council on Historic Preservation may be notified and asked to comment by the South Dakota Department of Environment and Natural Resources.

DAVIS-BACON AND RELATED ACTS

LABOR STANDARDS

Contractors performing work on construction projects which have been provided assistance through the State Revolving Fund must fulfill the requirements of the Labor Standards Provisions for federally assisted construction contracts. These standards are located at the end of this section.

WEEKLY CONTRACTOR PAYROLLS

Each week as work progresses, the contractor must submit to the Owner a copy of all weekly payrolls and required attachments stipulated therein. Sample suggested payrolls may be obtained from the Owner upon request. All weekly payrolls shall contain or have attached the following:

1. Name of each employee and the last four digits of the social security number.
2. Classification of employees (same as shown on wage determination).
3. Rate of pay not less than that shown on the wage determination.
4. Hours worked each day and total for each week for each employee.
5. All deductions made.
6. Net amount paid to employee.
7. The following certification:

"I certify that the payroll is correct and complete, that the wage rates contained therein are not less than the applicable rates contained in the Wage Determination decision of the Secretary of Labor and that the classification set forth for each laborer or mechanic conform with the work he performs."

(Signature)

(Title)

COMPLIANCE WITH THE COPELAND (ANTI-KICKBACK) ACT

The following anti-kickback statement must be submitted with each set of weekly payrolls:

"I, (name of signatory party), (title), do hereby state: That I pay or supervise the payment of the persons employed by (contractor or subcontractor) on the (work or building); that during the payroll period commencing on the _____ day of _____, 20____, and ending the _____ day of _____, 20____, all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly from the full weekly wages earned by any person, other than permissible deductions, as defined in Regulations, Part 3 (CFR Part 3) issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948; 63 Stat. 108; 72 Stat. 967; and 40 U.S.C. 276c), and described below: (Paragraph describing deductions, if any)"

(Signature)

(Title)

All prime contractors shall include the wage determination and all the labor standards provisions in all subcontracts as herein specified.

The Contractor shall make employment records available for inspection by authorized representatives of the State of South Dakota and the Department of Labor, and will permit employees to be interviewed during working hours by these representatives. Payroll records will be maintained during the course of the work by the Prime Contractor, including a copy of the payroll of each Subcontractor and they shall be preserved for a period of three years thereafter.

Each monthly engineering estimate must be accompanied by the following certificate executed by each Prime Contractor employing mechanics and laborers at the site on work in which the Federal government is to participate:

Principal Contractor _____

Project Name _____

Project No. _____

I, _____, as official representative of the above named principal contractor do hereby certify as follows:

- ☐ All Labor Standards Requirements have been fulfilled by principal contractor and all subcontractors under this contract; or
- ☐ There is an honest dispute regarding the required provisions.

Explanation: _____

(Signature)

(Title)

In the event of a violation of the Labor Standards provisions of the contract by the Prime Contractor or any Subcontractor, the owner may, after notice to the Contractor, suspend further payments or proceed to terminate the contract as provided in the Labor Standards section of the Contract.

FEDERAL LABOR STANDARDS PROVISIONS

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A.1 Minimum Wages

- (i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act(29CFR Part 3), the full amount of wages and bona fide fringe benefits(or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR Part 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

- (ii)(a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. EPA shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

The work to be performed by the classification requested is not performed by a classification in the wage determination; and

- (2) The classification is utilized in the area by the construction industry; and

- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and EPA or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by EPA or its designee to the Administrator of the Wage and Hour Division, Employment standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise EPA or its designee or will notify EPA or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)
- (c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and EPA or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), EPA or its designee shall refer the questions, including the views of all interested parties and the recommendation of EPA or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise EPA or its designee or will notify EPA or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control Number 1215-0140.)
- (d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding.

EPA or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the

event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, EPA or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. EPA or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. Payrolls and basic records

(i) Basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents there of the types described in Section 1(b)(2)B of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Certified weekly payrolls shall contain the name and last four digits of the social security number. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(b) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB control Numbers 1215-0140 and 1215-0017.)

(ii)(a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to EPA or its designee if the agency is a party to the contract, but if the agency is not such party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to EPA or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR Part 5.5(a)(3)(i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

That the payroll for the payroll period contains the information required to be maintained under 29 CFR Part 5.59(a)(3)(i) and that such information is correct and complete;

That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3.

That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

- (c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of compliance" required by paragraph A.3(ii)(b) of this section.
- (d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.
- (iii) The contractor or subcontractor shall make the records required under paragraph A.3(i) of this section available for inspection, copying, or transcription by authorized representatives of EPA or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, EPA or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR Part 5.12.

4. **Apprentices and trainees.**

- (i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program

for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevail for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) **Equal employment opportunity.** The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal and employment opportunity requirements of executive order 11246, as amended, and 29 CFR Part 30.

5. **Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.
6. **Subcontracts.** The contractor or subcontractor will insert in any subcontracts the clauses contained in 29 CFR 5.5 (a)(1) through (10) and such other clauses as EPA or its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.
7. **Contract termination; debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. **Compliance with Davis-Bacon and Related Act Requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and EPA or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. **Certification of Eligibility**

(i). By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded EPA contracts or participate in EPA programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded EPA contracts or participate in EPA programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1010, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part "Whoever, for the purpose of...influencing in any way the action of such Administration...makes, utters or publishes any statement, knowing the same to be false...shall be fined not more than \$5,000 or imprisoned not more than two years or both."

11. **Complaints, Proceedings, or Testimony by Employees.** No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. **Contract Work Hours and Safety Standards Act.** As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek, whichever is greater.

Violation: liability for unpaid wages: liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic

including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

Withholding for unpaid wages and liquidated damages. EPA or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety

No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 (formerly part 1518) and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat. 96).

The Contractor shall include the provisions of this Article in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontract as the Administrator of Environment and Natural Resources or the Secretary of Labor shall direct as a means of enforcing such provisions.



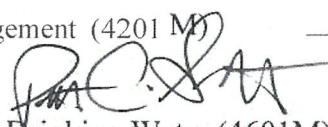
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MARCH 20 2014

OFFICE OF WATER

MEMORANDUM

SUBJECT: Implementation of American Iron and Steel provisions of P.L. 113-76, Consolidated Appropriations Act, 2014

FROM: (Andrew D. Sawyers, Director
Office of Wastewater Management (4201 M) _____
Peter C. Grevatt, Director 
Office of Ground Water and Drinking Water (4601M)

TO: Water Management Division Directors
Regions I- X

P.L. 113-76, Consolidated Appropriations Act, 2014 (Act), includes an "American Iron and Steel (AIS)" requirement in section 436 that requires Clean Water State Revolving Loan Fund (CWSRF) and Drinking Water State Revolving Loan Fund (DWSRF) assistance recipients to use iron and steel products that are produced in the United States for projects for the construction, alteration, maintenance, or repair of a public water system or treatment works if the project is funded through an assistance agreement executed beginning January 17, 2014 (enactment of the Act), through the end of Federal Fiscal Year 2014.

Section 436 also sets forth certain circumstances under which EPA may waive the AIS requirement. Furthermore, the Act specifically exempts projects where engineering plans and specifications were approved by a State agency prior to January 17, 2014.

The approach described below explains how EPA will implement the AIS requirement. The first section is in the form of questions and answers that address the types of projects that must comply with the AIS requirement, the types of products covered by the AIS requirement, and compliance. The second section is a step-by-step process for requesting waivers and the circumstances under which waivers may be granted.

Implementation

The Act states:

Sec. 436. (a)(1) None of the funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12) shall be used for a project for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel products used in the project are produced in the United States.

(2) In this section, the term “iron and steel products” means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

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

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

(2) iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(3) inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

(c) If the Administrator receives a request for a waiver under this section, the Administrator shall make available to the public on an informal basis a copy of the request and information available to the Administrator concerning the request, and shall allow for informal public input on the request for at least 15 days prior to making a finding based on the request. The Administrator shall make the request and accompanying information available by electronic means, including on the official public Internet Web site of the Environmental Protection Agency.

(d) This section shall be applied in a manner consistent with United States obligations under international agreements.

(e) The Administrator may retain up to 0.25 percent of the funds appropriated in this Act for the Clean and Drinking Water State Revolving Funds for carrying out

the provisions described in subsection (a)(1) for management and oversight of the requirements of this section.

(f) This section does not apply with respect to a project if a State agency approves the engineering plans and specifications for the project, in that agency's capacity to approve such plans and specifications prior to a project requesting bids, prior to the date of the enactment of this Act.

The following questions and answers provide guidance for implementing and complying with the AIS requirements:

Project Coverage

1) What classes of projects are covered by the AIS requirement?

All treatment works projects funded by a CWSRF assistance agreement, and all public water system projects funded by a DWSRF assistance agreement, from the date of enactment through the end of Federal Fiscal Year 2014, are covered. The AIS requirements apply to the entirety of the project, no matter when construction begins or ends. Additionally, the AIS requirements apply to all parts of the project, no matter the source of funding.

2) Does the AIS requirement apply to nonpoint source projects or national estuary projects?

No. Congress did not include an AIS requirement for nonpoint source and national estuary projects unless the project can also be classified as a 'treatment works' as defined by section 212 of the Clean Water Act.

3) Are any projects for the construction, alteration, maintenance, or repair of a public water system or treatment works excluded from the AIS requirement?

Any project, whether a treatment works project or a public water system project, for which engineering plans and specifications were approved by the responsible state agency prior to January 17, 2014, is excluded from the AIS requirements.

4) What if the project does not have approved engineering plans and specifications but has signed an assistance agreement with a CWSRF or DWSRF program prior to January 17, 2014?

The AIS requirements do not apply to any project for which an assistance agreement was signed prior to January 17, 2014.

5) What if the project does not have approved engineering plans and specifications, but bids were advertised prior to January 17, 2014 and an assistance agreement was signed after January 17, 2014?

If the project does not require approved engineering plans and specifications, the bid advertisement date will count in lieu of the approval date for purposes of the exemption in section 436(f).

6) What if the assistance agreement that was signed prior to January 17, 2014, only funded a part of the overall project, where the remainder of the project will be funded later with another SRF loan?

If the original assistance agreement funded any construction of the project, the date of the original assistance agreement counts for purposes of the exemption. If the original assistance agreement was only for planning and design, the date of that assistance agreement will count for purposes of the exemption only if there is a written commitment or expectation on the part of the assistance recipient to fund the remainder of the project with SRF funds.

7) What if the assistance agreement that was signed prior to January 17, 2014, funded the first phase of a multi-phase project, where the remaining phases will be funded by SRF assistance in the future?

In such a case, the phases of the project will be considered a single project if all construction necessary to complete the building or work, regardless of the number of contracts or assistance agreements involved, are closely related in purpose, time and place. However, there are many situations in which major construction activities are clearly undertaken in phases that are distinct in purpose, time, or place. In the case of distinct phases, projects with engineering plans and specifications approval or assistance agreements signed prior to January 17, 2014 would be excluded from AIS requirements while those approved/signed on January 17, 2014, or later would be covered by the AIS requirements.

8) What if a project has split funding from a non-SRF source?

Many States intend to fund projects with “split” funding, from the SRF program and from State or other programs. Based on the Act language in section 436, which requires that American iron and steel products be used in any project for the construction, alteration, maintenance, or repair of a public water system or treatment works receiving SRF funding between and including January 17, 2014 and September 30, 2014, any project that is funded in whole or in part with such funds must comply with the AIS requirement. A “project” consists of all construction necessary to complete the building or work regardless of the number of contracts or assistance agreements involved so long as all contracts and assistance agreements awarded are closely related in purpose, time and place. This precludes the intentional splitting of SRF projects into separate and smaller contracts or assistance agreements to avoid AIS coverage on some portion of a

larger project, particularly where the activities are integrally and proximately related to the whole. However, there are many situations in which major construction activities are clearly undertaken in separate phases that are distinct in purpose, time, or place, in which case, separate contracts or assistance agreement for SRF and State or other funding would carry separate requirements.

9) What about refinancing?

If a project began construction, financed from a non-SRF source, prior to January 17, 2014, but is refinanced through an SRF assistance agreement executed on or after January 17, 2014 and prior to October 1, 2014, AIS requirements will apply to all construction that occurs on or after January 17, 2014, through completion of construction, unless, as is likely, engineering plans and specifications were approved by a responsible state agency prior to January 17, 2014. There is no retroactive application of the AIS requirements where a refinancing occurs for a project that has completed construction prior to January 17, 2014.

10) Do the AIS requirements apply to any other EPA programs, besides the SRF program, such as the Tribal Set-aside grants or grants to the Territories and DC?

No, the AIS requirement only applies to funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12)

Covered Iron and Steel Products

11) What is an iron or steel product?

For purposes of the CWSRF and DWSRF projects that must comply with the AIS requirement, an iron or steel product is one of the following made primarily of iron or steel that is permanently incorporated into the public water system or treatment works:

- Lined or unlined pipes or fittings;
- Manhole Covers;
- Municipal Castings (defined in more detail below);
- Hydrants;
- Tanks;
- Flanges;
- Pipe clamps and restraints;
- Valves;
- Structural steel (defined in more detail below);
- Reinforced precast concrete; and
- Construction materials (defined in more detail below).

12) What does the term ‘primarily iron or steel’ mean?

‘Primarily iron or steel’ places constraints on the list of products above. For one of the listed products to be considered subject to the AIS requirements, it must be made of greater than 50% iron or steel, measured by cost. The cost should be based on the material costs.

13) Can you provide an example of how to perform a cost determination?

For example, the iron portion of a fire hydrant would likely be the bonnet, body and shoe, and the cost then would include the pouring and casting to create those components. The other material costs would include non-iron and steel internal workings of the fire hydrant (i.e., stem, coupling, valve, seals, etc). However, the assembly of the internal workings into the hydrant body would not be included in this cost calculation. If one of the listed products is not made primarily of iron or steel, United States (US) provenance is not required. An exception to this definition is reinforced precast concrete, which is addressed in a later question.

14) If a product is composed of more than 50% iron or steel, but is not listed in the above list of items, must the item be produced in the US? Alternatively, must the iron or steel in such a product be produced in the US?

The answer to both question is no. Only items on the above list must be produced in the US. Additionally, the iron or steel in a non-listed item can be sourced from outside the US.

15) What is the definition of steel?

Steel means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements. Metallic elements such as chromium, nickel, molybdenum, manganese, and silicon may be added during the melting of steel for the purpose of enhancing properties such as corrosion resistance, hardness, or strength. The definition of steel covers carbon steel, alloy steel, stainless steel, tool steel and other specialty steels.

16) What does ‘produced in the United States’ mean?

Production in the United States of the iron or steel products used in the project requires that all manufacturing processes, including application of coatings, must take place in the United States, with the exception of metallurgical processes involving refinement of steel additives. All manufacturing processes includes processes such as melting, refining, forming, rolling, drawing, finishing, fabricating and coating. Further, if a domestic iron and steel product is taken out of the US for any part of the manufacturing process, it becomes foreign source material. However, raw materials such as iron ore, limestone and iron and steel scrap are not covered by the AIS requirement, and the

material(s), if any, being applied as a coating are similarly not covered. Non-iron or steel components of an iron and steel product may come from non-US sources. For example, for products such as valves and hydrants, the individual non-iron and steel components do not have to be of domestic origin.

17) Are the raw materials used in the production of iron or steel required to come from US sources?

No. Raw materials, such as iron ore, limestone, scrap iron, and scrap steel, can come from non-US sources.

18) If an above listed item is primarily made of iron or steel, but is only at the construction site temporarily, must such an item be produced in the US?

No. Only the above listed products made primarily of iron or steel, permanently incorporated into the project must be produced in the US. For example trench boxes, scaffolding or equipment, which are removed from the project site upon completion of the project, are not required to be made of U.S. Iron or Steel.

19) What is the definition of ‘municipal castings’?

Municipal castings are cast iron or steel infrastructure products that are melted and cast. They typically provide access, protection, or housing for components incorporated into utility owned drinking water, storm water, wastewater, and surface infrastructure. They are typically made of grey or ductile iron, or steel. Examples of municipal castings are:

- Access Hatches;
- Ballast Screen;
- Benches (Iron or Steel);
- Bollards;
- Cast Bases;
- Cast Iron Hinged Hatches, Square and Rectangular;
- Cast Iron Riser Rings;
- Catch Basin Inlet;
- Cleanout/Monument Boxes;
- Construction Covers and Frames;
- Curb and Corner Guards;
- Curb Openings;
- Detectable Warning Plates;
- Downspout Shoes (Boot, Inlet);
- Drainage Grates, Frames and Curb Inlets;
- Inlets;
- Junction Boxes;
- Lampposts;
- Manhole Covers, Rings and Frames, Risers;

Meter Boxes;
Service Boxes;
Steel Hinged Hatches, Square and Rectangular;
Steel Riser Rings;
Trash receptacles;
Tree Grates;
Tree Guards;
Trench Grates; and
Valve Boxes, Covers and Risers.

20) What is ‘structural steel’?

Structural steel is rolled flanged shapes, having at least one dimension of their cross-section three inches or greater, which are used in the construction of bridges, buildings, ships, railroad rolling stock, and for numerous other constructional purposes. Such shapes are designated as wide-flange shapes, standard I-beams, channels, angles, tees and zebs. Other shapes include H-piles, sheet piling, tie plates, cross ties, and those for other special purposes.

21) What is a ‘construction material’ for purposes of the AIS requirement?

Construction materials are those articles, materials, or supplies made primarily of iron and steel, that are permanently incorporated into the project, not including mechanical and/or electrical components, equipment and systems. Some of these products may overlap with what is also considered “structural steel”. This includes, but is not limited to, the following products: wire rod, bar, angles, concrete reinforcing bar, wire, wire cloth, wire rope and cables, tubing, framing, joists, trusses, fasteners (i.e., nuts and bolts), welding rods, decking, grating, railings, stairs, access ramps, fire escapes, ladders, wall panels, dome structures, roofing, ductwork, surface drains, cable hanging systems, manhole steps, fencing and fence tubing, guardrails, doors, and stationary screens.

22) What is not considered a ‘construction material’ for purposes of the AIS requirement?

Mechanical and electrical components, equipment and systems are not considered construction materials. Mechanical equipment is typically that which has motorized parts and/or is powered by a motor. Electrical equipment is typically any machine powered by electricity and includes components that are part of the electrical distribution system.

The following examples (including their appurtenances necessary for their intended use and operation) are NOT considered construction materials: pumps, motors, gear reducers, drives (including variable frequency drives (VFDs)), electric/pneumatic/manual accessories used to operate valves (such as electric valve actuators), mixers, gates, motorized screens (such as traveling screens), blowers/aeration equipment, compressors, meters, sensors, controls and switches, supervisory control and

data acquisition (SCADA), membrane bioreactor systems, membrane filtration systems, filters, clarifiers and clarifier mechanisms, rakes, grinders, disinfection systems, presses (including belt presses), conveyors, cranes, HVAC (excluding ductwork), water heaters, heat exchangers, generators, cabinetry and housings (such as electrical boxes/enclosures), lighting fixtures, electrical conduit, emergency life systems, metal office furniture, shelving, laboratory equipment, analytical instrumentation, and dewatering equipment.

23) If the iron or steel is produced in the US, may other steps in the manufacturing process take place outside of the US, such as assembly?

No. Production in the US of the iron or steel used in a listed product requires that all manufacturing processes must take place in the United States, except metallurgical processes involving refinement of steel additives.

24) What processes must occur in the US to be compliant with the AIS requirement for reinforced precast concrete?

While reinforced precast concrete may not be at least 50% iron or steel, in this particular case, the reinforcing bar and wire must be produced in the US and meet the same standards as for any other iron or steel product. Additionally, the casting of the concrete product must take place in the US. The cement and other raw materials used in concrete production are not required to be of domestic origin.

If the reinforced concrete is cast at the construction site, the reinforcing bar and wire are considered to be a construction material and must be produced in the US.

Compliance

25) How should an assistance recipient document compliance with the AIS requirement?

In order to ensure compliance with the AIS requirement, specific AIS contract language must be included in each contract, starting with the assistance agreement, all the way down to the purchase agreements. Sample language for assistance agreements and contracts can be found in Appendix 3 and 4.

EPA recommends the use of a step certification process, similar to one used by the Federal Highway Administration. The step certification process is a method to ensure that producers adhere to the AIS requirement and assistance recipients can verify that products comply with the AIS requirement. The process also establishes accountability and better enables States to take enforcement actions against violators.

Step certification creates a paper trail which documents the location of the manufacturing process involved with the production of steel and iron materials. A step certification is a process under which each handler (supplier, fabricator, manufacturer,

processor, etc) of the iron and steel products certifies that their step in the process was domestically performed. Each time a step in the manufacturing process takes place, the manufacturer delivers its work along with a certification of its origin. A certification can be quite simple. Typically, it includes the name of the manufacturer, the location of the manufacturing facility where the product or process took place (not its headquarters), a description of the product or item being delivered, and a signature by a manufacturer's responsible party. Attached, as Appendix 5, are sample certifications. These certifications should be collected and maintained by assistance recipients.

Alternatively, the final manufacturer that delivers the iron or steel product to the worksite, vendor, or contractor, may provide a certification asserting that all manufacturing processes occurred in the US. While this type of certification may be acceptable, it may not provide the same degree of assurance. Additional documentation may be needed if the certification is lacking important information. Step certification is the best practice.

26) How should a State ensure assistance recipients are complying with the AIS requirement?

In order to ensure compliance with the AIS requirement, States SRF programs must include specific AIS contract language in the assistance agreement. Sample language for assistance agreements can be found in Appendix 3.

States should also, as a best practice, conduct site visits of projects during construction and review documentation demonstrating proof of compliance which the assistance recipient has gathered.

27) What happens if a State or EPA finds a non-compliant iron and/or steel product permanently incorporated in the project?

If a potentially non-compliant product is identified, the State should notify the assistance recipient of the apparent unauthorized use of the non-domestic component, including a proposed corrective action, and should be given the opportunity to reply. If unauthorized use is confirmed, the State can take one or more of the following actions: request a waiver where appropriate; require the removal of the non-domestic item; or withhold payment for all or part of the project. Only EPA can issue waivers to authorize the use of a non-domestic item. EPA may use remedies available to it under the Clean Water Act, the Safe Drinking Water Act, and 40 CFR part 31 grant regulations, in the event of a violation of a grant term and condition.

It is recommended that the State work collaboratively with EPA to determine the appropriate corrective action, especially in cases where the State is the one who identifies the item in noncompliance or there is a disagreement with the assistance recipient.

If fraud, waste, abuse, or any violation of the law is suspected, the Office of Inspector General (OIG) should be contacted immediately. The OIG can be reached at 1-

888-546-8740 or OIG_Hotline@epa.gov. More information can be found at this website: <http://www.epa.gov/oig/hotline.htm>.

28) How do international trade agreements affect the implementation of the AIS requirements?

The AIS provision applies in a manner consistent with United States obligations under international agreements. Typically, these obligations only apply to direct procurement by the entities that are signatories to such agreements. In general, SRF assistance recipients are not signatories to such agreements, so these agreements have no impact on this AIS provision. In the few instances where such an agreement applies to a municipality, that municipality is under the obligation to determine its applicability and requirements and document the actions taken to comply for the State.

Waiver Process

The statute permits EPA to issue waivers for a case or category of cases where EPA finds (1) that applying these requirements would be inconsistent with the public interest; (2) iron and steel products are not produced in the US in sufficient and reasonably available quantities and of a satisfactory quality; or (3) inclusion of iron and steel products produced in the US will increase the cost of the overall project by more than 25 percent.

In order to implement the AIS requirements, EPA has developed an approach to allow for effective and efficient implementation of the waiver process to allow projects to proceed in a timely manner. The framework described below will allow States, on behalf of the assistance recipients, to apply for waivers of the AIS requirement directly to EPA Headquarters. Only waiver requests received from states will be considered. Pursuant to the Act, EPA has the responsibility to make findings as to the issuance of waivers to the AIS requirements.

Definitions

The following terms are critical to the interpretation and implementation of the AIS requirements and apply to the process described in this memorandum:

Reasonably Available Quantity: The quantity of iron or steel products is available or will be available at the time needed and place needed, and in the proper form or specification as specified in the project plans and design.

Satisfactory Quality: The quality of iron or steel products, as specified in the project plans and designs.

Assistance Recipient: A borrower or grantee that receives funding from a State CWSRF or DWSRF program.

Step-By-Step Waiver Process

Application by Assistance Recipient

Each local entity that receives SRF water infrastructure financial assistance is required by section 436 of the Act to use American made iron and steel products in the construction of its project. However, the recipient may request a waiver. Until a waiver is granted by EPA, the AIS requirement stands, except as noted above with respect to municipalities covered by international agreements.

The waiver process begins with the SRF assistance recipient. In order to fulfill the AIS requirement, the assistance recipient must in good faith design the project (where applicable) and solicit bids for construction with American made iron and steel products. It is essential that the assistance recipient include the AIS terms in any request for proposals or solicitations for bids, and in all contracts (see Appendix 3 for sample construction contract language). The assistance recipient may receive a waiver at any point before, during, or after the bid process, if one or more of three conditions is met:

1. Applying the American Iron and Steel requirements of the Act would be inconsistent with the public interest;
2. Iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or
3. Inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

Proper and sufficient documentation must be provided by the assistance recipient. A checklist detailing the types of information required for a waiver to be processed is attached as Appendix 1.

Additionally, it is strongly encouraged that assistance recipients hold pre-bid conferences with potential bidders. A pre-bid conference can help to identify iron and steel products needed to complete the project as described in the plans and specifications that may not be available from domestic sources. It may also identify the need to seek a waiver prior to bid, and can help inform the recipient on compliance options.

In order to apply for a project waiver, the assistance recipient should email the request in the form of a Word document (.doc) to the State SRF program. It is strongly recommended that the State designate a single person for all AIS communications. The State SRF designee will review the application for the waiver and determine whether the necessary information has been included. Once the waiver application is complete, the State designee will forward the application to either of two email addresses. For CWSRF waiver requests, please send the application to: cwsrfwaiver@epa.gov. For DWSRF waiver requests, please send the application to: dwsrfwaiver@epa.gov.

Evaluation by EPA

After receiving an application for waiver of the AIS requirements, EPA Headquarters will publish the request on its website for 15 days and receive informal comment. EPA Headquarters will then use the checklist in Appendix 2 to determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver – that it is quantitatively and qualitatively sufficient – and to determine whether or not to grant the waiver.

In the event that EPA finds that adequate documentation and justification has been submitted, the Administrator may grant a waiver to the assistance recipient. EPA will notify the State designee that a waiver request has been approved or denied as soon as such a decision has been made. Granting such a waiver is a three-step process:

1. Posting – After receiving an application for a waiver, EPA is required to publish the application and all material submitted with the application on EPA's website for 15 days. During that period, the public will have the opportunity to review the request and provide informal comment to EPA. The website can be found at: http://water.epa.gov/grants_funding/aisrequirement.cfm
2. Evaluation – After receiving an application for waiver of the AIS requirements, EPA Headquarters will use the checklist in Appendix 2 to determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver – that it is quantitatively and qualitatively sufficient – and to determine whether or not to grant the waiver.
3. Signature of waiver approval by the Administrator or another agency official with delegated authority – As soon as the waiver is signed and dated, EPA will notify the State SRF program, and post the signed waiver on our website. The assistance recipient should keep a copy of the signed waiver in its project files.

Public Interest Waivers

EPA has the authority to issue public interest waivers. Evaluation of a public interest waiver request may be more complicated than that of other waiver requests so they may take more time than other waiver requests for a decision to be made. An example of a public interest waiver that might be issued could be for a community that has standardized on a particular type or manufacturer of a valve because of its performance to meet their specifications. Switching to an alternative valve may require staff to be trained on the new equipment and additional spare parts would need to be purchased and stocked, existing valves may need to be unnecessarily replaced, and portions of the system may need to be redesigned. Therefore, requiring the community to install an alternative valve would be inconsistent with public interest.

EPA also has the authority to issue a public interest waiver that covers categories of products that might apply to all projects.

EPA reserves the right to issue national waivers that may apply to particular classes of assistance recipients, particular classes of projects, or particular categories of iron or steel products. EPA may develop national or (US geographic) regional categorical waivers through the identification of similar circumstances in the detailed justifications presented to EPA in a waiver request or requests. EPA may issue a national waiver based on policy decisions regarding the public's interest or a determination that a particular item is not produced domestically in reasonably available quantities or of a sufficient quality. In such cases, EPA may determine it is necessary to issue a national waiver.

If you have any questions concerning the contents of this memorandum, you may contact us, or have your staff contact Jordan Dorfman, Attorney-Advisor, State Revolving Fund Branch, Municipal Support Division, at dorfman.jordan@epa.gov or (202) 564-0614 or Kiri Anderer, Environmental Engineer, Infrastructure Branch, Drinking Water Protection Division, at anderer.kirsten@epa.gov or (202) 564-3134.

Attachments

Appendix 1: Information Checklist for Waiver Request

The purpose of this checklist is to help ensure that all appropriate and necessary information is submitted to EPA. EPA recommends that States review this checklist carefully and provide all appropriate information to EPA. This checklist is for informational purposes only and does not need to be included as part of a waiver application.

Items	<input type="checkbox"/>	No
<p>General</p> <ul style="list-style-type: none"> • Waiver request includes the following information: <ul style="list-style-type: none"> — Description of the foreign and domestic construction materials — Unit of measure — Quantity — Price — Time of delivery or availability — Location of the construction project — Name and address of the proposed supplier — A detailed justification for the use of foreign construction materials • Waiver request was submitted according to the instructions in the memorandum • Assistance recipient made a good faith effort to solicit bids for domestic iron and steel products, as demonstrated by language in requests for proposals, contracts, and communications with the prime contractor 		
<p>Cost Waiver Requests</p> <ul style="list-style-type: none"> • Waiver request includes the following information: <ul style="list-style-type: none"> — Comparison of overall cost of project with domestic iron and steel products to overall cost of project with foreign iron and steel products — Relevant excerpts from the bid documents used by the contractors to complete the comparison — Supporting documentation indicating that the contractor made a reasonable survey of the market, such as a description of the process for identifying suppliers and a list of contacted suppliers 		
<p>Availability Waiver Requests</p> <ul style="list-style-type: none"> • Waiver request includes the following supporting documentation necessary to demonstrate the availability, quantity, and/or quality of the materials for which the waiver is requested: <ul style="list-style-type: none"> — Supplier information or pricing information from a reasonable number of domestic suppliers indicating availability/delivery date for construction materials — Documentation of the assistance recipient's efforts to find available domestic sources, such as a description of the process for identifying suppliers and a list of contacted suppliers. — Project schedule — Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of construction materials • Waiver request includes a statement from the prime contractor and/or supplier confirming the non-availability of the domestic construction materials for which the waiver is sought • Has the State received other waiver requests for the materials described in this waiver request, for comparable projects? 		

Appendix 2: HQ Review Checklist for Waiver Request

Instructions: To be completed by EPA. Review all waiver requests using the questions in the checklist, and mark the appropriate box as Yes, No or N/A. Marks that fall inside the shaded boxes may be grounds for denying the waiver. If none of your review markings fall into a shaded box, the waiver is eligible for approval if it indicates that one or more of the following conditions applies to the domestic product for which the waiver is sought:

1. The iron and/or steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality.
2. The inclusion of iron and/or steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

Review Items	Yes	No	N/A	Comments
Cost Waiver Requests				
• Does the waiver request include the following information?				
— Comparison of overall cost of project with domestic iron and steel products to overall cost of project with foreign iron and steel products				
— Relevant excerpts from the bid documents used by the contractors to complete the comparison				
— A sufficient number of bid documents or pricing information from domestic sources to constitute a reasonable survey of the market				
• Does the Total Domestic Project exceed the Total Foreign Project Cost by more than 25%?				
Availability Waiver Requests				
• Does the waiver request include supporting documentation sufficient to show the availability, quantity, and/or quality of the iron and/or steel product for which the waiver is requested?				
— Supplier information or other documentation indicating availability/delivery date for materials				
— Project schedule				
— Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of materials				
• Does supporting documentation provide sufficient evidence that the contractors made a reasonable effort to locate domestic suppliers of materials, such as a description of the process for identifying suppliers and a list of contacted suppliers?				
• Based on the materials delivery/availability date indicated in the supporting documentation, will the materials be unavailable when they are needed according to the project schedule? (By item, list schedule date and domestic delivery quote date or other relevant information)				
• Is EPA aware of any other evidence indicating the non-availability of the materials for which the waiver is requested?				
Examples include:				
— Multiple waiver requests for the materials described in this waiver request, for comparable projects in the same State				
— Multiple waiver requests for the materials described in this waiver request, for comparable projects in other States				
— Correspondence with construction trade associations indicating the non-availability of the materials				
• Are the available domestic materials indicated in the bid documents of inadequate quality compared those required by the project plans, specifications, and/or permits?				

Appendix 3: Example Loan Agreement Language

ALL ASSISTANCE AGREEMENT MUST HAVE A CLAUSE REQUIRING COMPLIANCE WITH THE AIS REQUIREMENT. THIS IS AN EXAMPLE OF WHAT COULD BE INCLUDED IN SRF ASSISTANCE AGREEMENTS. EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THIS CLAUSE WITH RESPECT TO STATE LAW:

Comply with all federal requirements applicable to the Loan (including those imposed by the 2014 Appropriations Act and related SRF Policy Guidelines) which the Participant understands includes, among other, requirements that all of the iron and steel products used in the Project are to be produced in the United States (“American Iron and Steel Requirement”) unless (i) the Participant has requested and obtained a waiver from the Agency pertaining to the Project or (ii) the Finance Authority has otherwise advised the Participant in writing that the American Iron and Steel Requirement is not applicable to the Project.

Comply with all record keeping and reporting requirements under the Clean Water Act/Safe Drinking Water Act, including any reports required by a Federal agency or the Finance Authority such as performance indicators of program deliverables, information on costs and project progress. The Participant understands that (i) each contract and subcontract related to the Project is subject to audit by appropriate federal and state entities and (ii) failure to comply with the Clean Water Act/Safe Drinking Water Act and this Agreement may be a default hereunder that results in a repayment of the Loan in advance of the maturity of the Bonds and/or other remedial actions.

Appendix 4: Sample Construction Contract Language

ALL CONTRACTS MUST HAVE A CLAUSE REQUIRING COMPLIANCE WITH THE AIS REQUIREMENT. THIS IS AN EXAMPLE OF WHAT COULD BE INCLUDED IN ALL CONTRACTS IN PROJECTS THAT USE SRF FUNDS. EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THIS CLAUSE WITH RESPECT TO STATE OR LOCAL LAW:

The Contractor acknowledges to and for the benefit of the City of _____ (“Purchaser”) and the _____ (the “State”) that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as “American Iron and Steel;” that requires all of the iron and steel products used in the project to be produced in the United States (“American Iron and Steel Requirement”) including iron and steel products provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Appendix 5: Sample Certifications

The following information is provided as a sample letter of **step** certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name

Company

Address City,

State Zip

Subject: American Iron and Steel Step Certification for Project (XXXXXXXXXX)

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. Xxxx
2. Xxxx
3. Xxxx

Such process took place at the following location:

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

The following information is provided as a sample letter of certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Certification for Project (XXXXXXXXXX)

I, (company representative), certify that the following products and/or materials shipped/provided to the subject project are in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. XXXX
2. XXXX
3. XXXX

Such process took place at the following location:

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

AMERICAN IRON AND STEEL CERTIFICATION

1. Identification of American-made Iron and Steel: Consistent with the terms of the Borrower's bid solicitation and the provisions of the Consolidated Appropriations Act of 2014 ("Omnibus Spending Bill"), Section 436, the Bidder certifies that this bid reflects the Bidder's best, good faith to identify domestic sources of iron and steel for all iron and steel products contained in the bid solicitation where such American-made products are available on the schedule and consistent with the deadlines prescribed in or required by the bid solicitation.
2. Verification of U.S. Production: The Bidder certifies that all iron and steel products contained in the bid solicitation that are American-made have been so identified, and if this bid is accepted, the Bidder agrees that it will provide reasonable, sufficient, and timely verification to the Borrower of the U.S. production of each iron and steel product so identified through the completion of the step certification process.
3. The Bidder is responsible for submitting certified product information to the assistance recipient. Utilization of the step certification process is strongly encouraged. This process requires that each handler (supplier, fabricator, manufacturer, processor, etc.) of the iron and steel products certifies that their step in the process was domestically performed and provides a letter of certification from each supplier/fabricator on transfer of intermediate product. Step certification creates a paper trail which documents the location of the manufacturing process involved with the production of steel and iron materials. An example certification letter can be found in Appendix 5 of the American Iron and Steel Provisions in the SRF General Conditions.
4. The American Iron and Steel provision applies in a manner consistent with United States obligations under international agreements. Typically, these obligations only apply to direct procurement by the entities that are signatory to such agreements. State Revolving Fund assistance recipients are not signatories to such agreements, so these agreements have no impact on the American Iron and Steel provision. Claims from suppliers that the American Iron and Steel provision does not apply to certain products based on the International Trade Agreement exemptions of the Consolidated Appropriations Act of 2014 will not be accepted.
5. Documentation Regarding Non-American-made Iron or Steel: The Bidder certifies that for any iron and steel product that is not American-made and is so identified in this bid, the Bidders has included in or attached to this bid the following, as applicable:
 - a. Identification of and citation to a national waiver published by the U.S. Environmental Protection Agency on the official public Internet Web site of the Environmental Protection Agency that is applicable to such iron and steel product, and an analysis that supports its applicability to the iron and steel product;
 - b. Verifiable documentation sufficient to the Borrower that the waiver request process has been initiated. The assistance recipient may receive a waiver at any point before, during, or after the bid process, if one or more of three conditions is met:
 1. Applying the American Iron and Steel requirements of the Act would be inconsistent with the public interest;

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

A checklist detailing the types of information required for a waiver to be processed can be found in Appendix 1 of the American Iron and Steel Provisions of the SRF General Conditions. Until a waiver is granted by EPA, the AIS requirements stand.

Bidder/Contractor

Date

Signature of Contractor/Title

**PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES
OR EQUIPMENT.**

2 CFR §200.216

(a) Recipients and subrecipients are prohibited from obligating or expending loan or grant funds to:

(1) Procure or obtain;

(2) Extend or renew a contract to procure or obtain; or

(3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

(i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

(ii) Telecommunications or video surveillance services provided by such entities or using such equipment.

(iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

(b) In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.

(c) See Public Law 115-232, section 889 for additional information.

(d) See also §200.471.

BID PROPOSAL

**Karen Drive from Peninah St. to Valley Rd.
Bradley Street from 19th St. to Karen Dr.
Valley Road from Burleigh St. to 21st St.
Watermain Replacement
Project # 2023-008**

Date: _____

Proposal of _____ (hereinafter

called "BIDDER") a corporation, organized and existing under the laws of the State of

_____, a partnership, or an individual doing business as:

To: City Finance Officer
City of Yankton
Yankton, South Dakota

Proposals to be filed
no later than 3:00 P.M.
on May 23, 2024

Bidder:

The BIDDER, in compliance with your invitation to bid for this project, having examined the specifications and related documents, being familiar with the site of the proposed work, and being familiar with all of the conditions surrounding the proposed project, including the availability of materials and labor hereby proposes to furnish all labor, materials, and supplies in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below. This price covers all expenses incurred in performing the work required under the contract documents, of which this proposal is a part.

The undersigned bidder does hereby declare and stipulate that each proposal is made in good faith, without collusion or connection with any other person or persons bidding for the same work, and that it is made in pursuance of and subject to the detailed specifications, and all other contract documents, pertaining to the work to be done, all of which have been examined by the undersigned.

All the various phases of work enumerated in the contract documents with their individual jobs and overhead, whether specifically mentioned, included by implication or appurtenant thereto, are to be performed by the Contractor.

The BIDDER hereby agrees to fully complete the PROJECT by September 13, 2024. The BIDDER further agrees that if he does not complete the project within the time period specified, to pay as liquidated damages, the sum of \$950.00 for each working day the project exceeds the completion date as provided in Section 15 of the GENERAL CONDITIONS.

The BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit prices or lump sum. (Note: BIDS shall include all applicable taxes and fees.)

Item	Description	Quantity	Unit	Unit Price	Total Price
General					
1	Mobilization	1	LS	\$	\$
2	Incidental	1	LS	\$	\$
Traffic Control					
3	Traffic Control	2690	UNITS	\$	\$
4	Traffic Control Miscellaneous	1	LS	\$	\$
Erosion Control					
5	Vehicle Tracking Control	3	EA	\$	\$
6	Topsoil	1	LS	\$	\$
7	Seeding, Mulching, Fertilizer	1	LS	\$	\$
8	Inlet Sediment Control	9	EA	\$	\$
9	Geotextile Fabric	400	SY	\$	\$
10	Silt Fence	100	LF	\$	\$
Removals					
11	Saw Existing Concrete	642	LF	\$	\$
12	Saw Existing Asphalt	218	LF	\$	\$
13	Removal of Concrete Pavement	854	SY	\$	\$
14	Removal of Asphalt Pavement	9028	SY	\$	\$
15	Removal of Curb and Gutter	671	LF	\$	\$
16	Unclassified Excavation	1	LS	\$	\$
17	Undercutting	200	CY	\$	\$
18	Water for Embankment or Granular Material	20	Kgal	\$	\$
19	Clearing and Grubbing	1	LS	\$	\$
Watermain					
20	6" PVC Watermain C-900	2822	LF	\$	\$
21	12" PVC Watermain C-900	12	LF	\$	\$
22	1" Copper Service Line	229	LF	\$	\$
23	6" MJ Gate Valve with Box	14	EA	\$	\$
24	12" MJ Gate Valve with Box	1	EA	\$	\$
25	6" X 6" X 6" MJ Tee	11	EA	\$	\$
26	12" X 12" X 6" MJ Tee	1	EA	\$	\$
27	6" X 45° MJ Bend	9	EA	\$	\$
28	6" X 22.5° MJ Bend	9	EA	\$	\$
29	6" Megalugs	111	EA	\$	\$

30	12" Megalugs	6	EA	\$	\$
31	6" Oversized MJ Sleeve	5	EA	\$	\$
32	6" MJ Sleeve	1	EA	\$	\$
33	12" MJ Sleeve	1	EA	\$	\$
34	6" Cap	4	EA	\$	\$
35	Cut and Tie into Existing Main	6	EA	\$	\$
36	Water Service Line Reconnect	30	EA	\$	\$
37	Temporary Fire Hydrant	3	EA	\$	\$
38	Install Fire Hydrant	6	EA	\$	\$
39	Granular Material for Watermain	2834	LF	\$	\$
40	Remove Existing Water Main Pipe	10	LF	\$	\$
41	Remove Existing Valve	3	EA	\$	\$
42	Remove Existing Fire Hydrant	6	EA	\$	\$
Sanitary Sewer					
43	Remove Existing Vault	1	EA	\$	\$
44	Remove Existing Sanitary Sewer Pipe	204	LF	\$	\$
45	8" PVC Sanitary Sewer 8' to 10'	65	LF	\$	\$
46	8" PVC Sanitary Sewer 10' to 12'	139	LF	\$	\$
47	F&I 48" Manhole 10' to 12'	1	EA	\$	\$
48	Tie Into Existing Clay Pipe	6	EA	\$	\$
49	Tie Into Existing Manhole	2	EA	\$	\$
50	Granular Material for Sewer Main	204	LF	\$	\$
51	Replace Manhole Frame and Cover	2	EA	\$	\$
52	Sanitary Sewer Service Repair	2	EA	\$	\$
Surfacing					
53	Concrete Curb & Gutter (B66)	671	LF	\$	\$
54	4" Sidewalk	4728	SF	\$	\$
55	6" Sidewalk	2295	SF	\$	\$
56	6" Sidewalk w/ 8" Curb Attached	705	SF	\$	\$
57	6" Sidewalk w/ 1' Curb Attached	1440	SF	\$	\$
58	Salvage and Reinstall Landscape Wall	1	LS	\$	\$
59	6" Approach Pavement	2742	SF	\$	\$
60	6" Concrete Pavement	1443	SF	\$	\$
61	6" Fillet Section	755	SF	\$	\$
62	6" Valley Gutter	981	SF	\$	\$

63	Aggregate Base Course	9308	SY	\$	\$
64	Drill Bars into Existing Pavement	77	EA	\$	\$
65	Detectable Warning Panel	130	SF	\$	\$

Total \$ _____

(Total Bid Amount Written Out)

Bidder acknowledges receipt of the following addenda:

Date: _____ Number: _____

The Bidder understands that the Owner reserves the right to reject any or all bids, to waive any informalities in the bidding and to award the contract in the best interest of the Owner.

Respectfully submitted:

Name of Firm

Federal ID No.

Officer

Address

Telephone No.

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called PRINCIPAL, and

(Name of Surety)

(Address of Surety)

hereinafter called SURETY, are hereby held and firmly bound unto the CITY OF YANKTON, SOUTH DAKOTA, hereinafter called OWNER, in the penal sum of _____ Dollars, (\$ _____) in lawful money of the United States, for the payment of which, will and truly to be made, we hereby jointly and severally bind ourselves, successors, and assign.

THE CONDITON OF THIS OBLIGATION is such that whereas, the PRINCIPAL has submitted the accompanying BID PROPOSAL, dated _____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE,

(a) If said BID shall be rejected, or

(b) If said BID be accepted and the PRINCIPAL shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the SURETY for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The SURETY, for value received, hereby stipulates and agrees that the obligations of said SURETY and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said SURETY does hereby waive notice of any such extension.

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

_____(LS)
PRINCIPAL

by _____(s)

ATTEST:

(Principal) Secretary

(SEAL)

(Witness as to Principal)

(Address)

SURETY
BY _____

ATTEST:

(Surety) Secretary

(SEAL)

(Witness as to Surety)

(Address)

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 South Dakota

BIDDERS STATEMENT OF QUALIFICATIONS

(Must be submitted with bid)

To: City of Yankton
Yankton, South Dakota

Date Submitted: _____

The following statements of qualification and experience are current for:

Name of Organization: _____

Address: _____

We are incorporated in the State of: _____

Our principal work is: _____

We are licensed to perform this work in the State of South Dakota at the present time: (Yes)
(No)

EXPERIENCE RECORD

A. Completed projects of comparable nature (list 3 minimum)

Location & Description of Work	Owner	Contract Amount	Date Completed
--------------------------------	-------	--------------------	-------------------

B. Work in Progress

Location & Description of Work	Owner	Contract Amount	Date Completed
--------------------------------	-------	-----------------	----------------

The following list of equipment is proposed for use on this project:

Description	Manufacturer	Size & Class	Capacity	Year
(use additional sheets if required)				

Our superintendent for this project will be: _____

His experience includes:

General statement of experience and qualifications of this organization includes:

We propose to use the following major suppliers (include name & address of suppliers and equipment manufacturing type, and model no.'s if more than one type is offered by specifications):

We propose to use the following subcontractors (name & address):

Our Bonding Company is: _____

Address: _____

We propose to accomplish the required work on this project using the step-by-step approach, or schedule, and personnel as herein stated: (use extra sheets as required)

I certify that all the statements outlined above or attached hereto are a true representation of:

Name of Organization: _____

Address: _____

Prepared by: _____
(Signature)

Title: _____

Address: _____

Telephone: _____

NOTICE OF AWARD

Date: _____

TO: _____

ADDRESS: _____

OWNER'S PROJECT NO. _____

PROJECT: _____

CONTRACT FOR: _____

You are notified that your bid, dated _____

for the above contract has been considered. You are the apparent Successful Bidder and have been awarded a contract for (all items contained on the Bid Itemization).

(Indicate total work, alternates or sections of work awarded)

The contract price of your contract is

_____ dollars

(Written out)

\$ _____.

Three copies of each of the proposed Contract Documents accompany this Notice of Award.

You must comply with the following conditions precedent within ten (10) days of the Notice of Award, that is by _____.

(Date)

- 1. You must deliver to the OWNER three (3) fully executed counterparts of the Agreement.**
- 2. You must deliver with executed Agreement, the Contract Security (bonds) as specified in the Instructions to Bidders and General Conditions.**
- 3. Provide Certificate of Insurance with the Contract.**
- 4. List other conditions precedent: _____**

Failure to comply with these conditions within the time specified will entitle the OWNER to consider your bid abandoned to annul the Notice of Award and to declare your Bid Security forfeited.

Within the ten (10) days after you comply with those conditions, the OWNER will return to you one fully signed counterpart of the Agreement with the Contract Documents attached.

CITY OF YANKTON, SOUTH DAKOTA

By: _____

(Title)

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

ACCEPTANCE OF NOTICE OF AWARD

Receipt of the above NOTICE OF AWARD is hereby acknowledged by

_____ this the _____ day of _____ 20____.

By: _____

Title: _____

AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 20____, by and between the CITY OF YANKTON, SOUTH DAKOTA, hereinafter called "OWNER", and

_____ doing business as (an individual,) or (a partnership,) or (a corporation) 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

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

3. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS within 10 calendar days after the NOTICE TO PROCEED and will complete the same by September 13, 2024, unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.

4. The CONTRACTOR agrees to perform all of the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of \$ _____ or as shown in the BID schedule

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

- (A) Advertisement for Bids
- (B) Instruction to Bidders
- (C) Bid Proposal
- (D) Bid Bond
- (E) Bidders Statement of Qualifications
- (F) Agreement
- (G) General Conditions
- (H) Supplemental General Conditions
- (I) Payment Bond
- (J) Performance Bond
- (K) Notice of Award
- (L) Notice to Proceed
- (M) Change Order
- (N) Waiver and Release of Lien
- (O) Specifications prepared or issued by The City of Yankton dated _____
- (P) 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 GENERAL CONDITIONS such amounts as required by the CONTRACT DOCUMENTS.

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

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

OWNER:
The City of Yankton, South Dakota

City of Yankton Date

(SEAL)

ATTEST:

Al Viereck Date
Finance Officer

CONTRACTOR:

By Date

Title

Address

(SEAL)

ATTEST:

Title

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called PRINCIPAL, and

(Name of Surety)

(Address of Surety)

hereinafter called SURETY, are hereby held and firmly bound unto the CITY OF YANKTON, SOUTH DAKOTA, hereinafter called OWNER, in the penal sum of _____ Dollars, (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL has entered into a contract with the OWNER, dated _____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the PRINCIPAL shall promptly make payment to all persons, firms, SUBCONTRACTORS and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

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 the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation in 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 to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

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

_____(L.S.)
PRINCIPAL

By _____(s)

ATTEST:

(Principal) Secretary
(SEAL)

(Witness as to Principal)

(Address)

SURETY

BY _____

ATTEST:

(Surety) Secretary
(SEAL)

(Witness as to Surety)

(Address)

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 South Dakota.

**ACKNOWLEDGMENT OF PRINCIPAL
(Individual)**

State of _____)

: SS

County of _____)

On this _____ day of _____, 20____, before me personally appeared _____, known to me to be the individual described in and who executed the foregoing instrument and acknowledged to me that he executed the same.

Notary Public

My Commission expires the _____ day of _____, 20____.

**ACKNOWLEDGMENT OF PRINCIPAL
(Partnership)**

State of _____)

: SS

County of _____)

On this _____ day of _____, 20____, before me personally appeared _____, who acknowledged himself to be one of the partners of _____ a partnership, and that he, as such partner, be authorized so to do executed the foregoing instrument for the purposes therein contained, by signing the name of the partnership by himself as a partner.

Notary Public

My Commission expires the _____ day of _____, 20____.

**ACKNOWLEDGMENT OF PRINCIPAL
(Corporation)**

State of _____)

: SS

County of _____)

On this _____ day of _____, 20____, before me personally appeared _____, who acknowledged himself to be the _____ of _____, a corporation, and that he, as such _____ being authorized to so do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as _____.

Notary Public

My Commission expires the _____ day of _____, 20_____.

AFFIDAVIT OF CORPORATE SURETY

State of _____)

: SS

County of _____)

Affiant

_____, being first duly sworn on oath, deposes and says that he is the _____ of _____; and that he is duly authorized to execute and deliver the foregoing obligation; that said company is authorized to execute the same and has complied in all respects with the laws of _____ in reference to becoming sole surety upon bonds, undertakings and obligations.

Subscribed and sworn to before me this _____ day of _____, 20_____.

Notary Public Residing In:

My Commission expires the _____ day of _____, 20_____.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called PRINCIPAL, and

(Name of Surety)

(Address of Surety)

hereinafter called SURETY, are hereby held and firmly bound unto the CITY OF YANKTON, SOUTH DAKOTA, hereinafter called OWNER, in the penal sum of _____ Dollars, (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL has entered into a contract with the OWNER, dated _____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the PRINCIPAL shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the SURETY, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER 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 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 the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation in 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 to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

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

_____(L.S.)
PRINCIPAL
By _____(s)

ATTEST:

(Principal) Secretary
(SEAL)

(Witness as to Principal)

(Address)

SURETY

BY _____

ATTEST:

(Surety) Secretary
(SEAL)

(Witness as to Surety)

(Address)

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 South Dakota.

**ACKNOWLEDGMENT OF PRINCIPAL
(Individual)**

State of _____)

: SS

County of _____)

On this ____ day of _____, 20____, before me personally appeared _____,
known to me to be the individual described in and who executed the foregoing instrument and
acknowledged to me that he executed the same.

Notary Public

My Commission expires the ____ day of _____, 20 ____.

**ACKNOWLEDGMENT OF PRINCIPAL
(Partnership)**

State of _____)

: SS

County of _____)

On this ____ day of _____, 20____, before me personally appeared _____,
who acknowledged himself to be one of the partners of _____,
a partnership, and that he, as such partner, being authorized so to do, executed the foregoing
instrument for the purposes therein contained, by signing the name of the partnership by himself
as a partner.

Notary Public

My Commission expires the ____ day of _____, 20 ____.

**ACKNOWLEDGMENT OF PRINCIPAL
(Corporation)**

State of _____)

: SS

County of _____)

On this _____ day of _____, 20____, before me personally appeared _____, who acknowledged himself to be the _____ of _____, a corporation, and that he, as such _____ being authorized to so do, by signing the name of the corporation by himself as _____.

Notary Public

My Commission expires the _____ day of _____, 20____.

AFFIDAVIT OF CORPORATE SURETY

State of _____)

: SS

County of _____)

Affiant

_____, being first duly sworn on oath, deposes and says that he is the _____ of _____, that he is duly authorized to execute and deliver the foregoing obligation; that said company is authorized to execute the same and has complied in all respects with the laws of _____ in reference to becoming sole surety upon bonds, undertakings and obligations.

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public Residing In

My Commission expires the _____ day of _____, 20____.

NOTICE TO PROCEED

Dated _____, 20__

TO: _____
(Contractor)

ADDRESS: _____

PROJECT NO: _____

PROJECT: _____

CONTRACT FOR: _____

You are notified that the correct time under the above contract will commence to run on _____. By that date, you are to start performing your obligations under the Contract Documents. In accordance with the Agreement the date of final completion is _____.

Other requirements, if any

(Owner)

By _____
(Authorized Signature)

(Title)

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by

_____, this _____ day of _____, 20__.

(Signature)

CHANGE ORDER

PROJECT TITLE: _____ CHANGE ORDER NO.: _____
PROEJCT NO: _____ DATE: _____
DESCRIPTION: _____

The following changes are hereby made to the Contract Documents:

<u>Quantity</u>	<u>Each</u>	<u>Total</u>
-----------------	-------------	--------------

Total Amount of this Change Order \$ _____

JUSTIFICATION: _____

Original Contract Amount:	\$ _____
Current Contract Amt. Adjusted by Previous Change Orders:	\$ _____
Contract Amt. due to this Change Order will be (increased)(decreased) by:	\$ _____
Contract Amount including this Change Order will be:	\$ _____

Contract Time will be (increased)(decreased) by _____
Completion Date for all work will be _____

APPROVAL:

ORDERED BY: _____
City of Yankton

ACCEPTED BY: _____
Contractor

WAIVER AND RELEASE OF LIEN

WHEREAS, the undersigned, _____
(Manufacturer, Materialman, Subcontractor)

has furnished to _____ the following
(Name of Contractor)

_____ for use in the construction
(Kind of Material and Services Furnished)

of a project belonging to _____, and
(Name of Owner)

designated as _____
(Name of Project)

NOW, THEREFORE, the undersigned:

_____ for and in
(Manufacturer, Materialman, Subcontractor)

consideration of \$ _____, and other good and valuable consideration, the receipt
whereof is hereby acknowledged, do (does) hereby waive and release any and all liens, or
right to or claim of lien, on the above described project and premises, under any law,
common or statutory, on account of labor or materials, or both, heretofore or hereafter
furnished by the undersigned to or for the account of said _____
(Name of Contractor)
for said project.

Given under my (our) hand(s) and seal(s) this _____ day of _____, 20 ____.

(Manufacturer, Materialman or Subcontractor)

By: _____

GENERAL CONDITIONS

INDEX

<u>Section</u>	<u>Description</u>
1.	Definitions
2.	Additional Instructions and Detailed Drawings
3.	Schedules, Reports and Records
4.	Drawings and Specifications
5.	Shop Drawings
6.	Materials, Services and Facilities
7.	Inspection and Testing
8.	Substitutions
9.	Patents
10.	Surveys, Permits, Regulations
11.	Protection of Work, Property, Persons
12.	Supervision by Contractor
13.	Changes in the Work
14.	Changes in Contract Price
15.	Time for Completion and Liquidated Damages
16.	Correction of Work
17.	Subsurface Conditions
18.	Suspension of Work, Termination and Delay
19.	Payments to Contractor
20.	Acceptance of Final Payment as Release
21.	Insurance
22.	Contract Security
23.	Assignments
24.	Indemnification
25.	Separate Contracts
26.	Subcontracting
27.	Engineer's Authority
28.	Land and Right-of-Way
29.	Guaranty
30.	Arbitration
31.	Taxes

GENERAL CONDITIONS

1. DEFINITIONS:

1.1 Wherever used in the contract documents the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof.

1.2 ADDENDA: Written or graphic instruments issued prior to the execution of the agreement, which modify or interpret the contract documents' drawings and specifications by additions, deletions, clarifications or corrections.

1.3 BID: The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the work to be performed.

1.4 BIDDER: Any person, firm or corporation submitting a bid for the work.

1.5 BONDS: Bid, performance and payment bonds and other instruments of security furnished by the contractor and his surety in accordance with the contract documents.

1.6 CHANGE ORDER: A written order to the contractor authorizing an addition, deletion or revision in the work within the general scope of the contract documents, or authorizing an adjustment in the contract price or contract time.

1.7 CONTRACT DOCUMENTS: The contract, including advertisement for bids, information for bidders, bid, bid bond, agreement, payment bond, performance bond, notice of award, notice to proceed, change order, drawings, specifications and addenda.

1.8 CONTRACT PRICE: The total monies payable to the contractor under the terms and conditions of the contract documents.

1.9 CONTRACT TIME: The number of calendar days stated in the contract documents for the completion of the work.

1.10 CONTRACTOR: The person, firm or corporation with whom the owner has executed the agreement.

1.11 DRAWINGS: The part of the contract documents which show the characteristics and scope of the work to be performed and which have been prepared or approved by the Engineer.

1.12 ENGINEER: The person, firm or corporation named as such in the contract documents.

1.13 FIELD ORDER: A written order effecting a change in the work not involving an adjustment in the contract price or an extension of the contract time issued by the Engineer to the contractor during construction.

1.14 NOTICE OF AWARD: The written notice of the acceptance of the bid from the owner to the successful bidder.

1.15 NOTICE TO PROCEED: Written communication issued by the owner to the contractor authorizing him to proceed with the work and establishing the date of commencement of the work.

1.16 OWNER: A public or quasi-public body or authority, corporation, association, partnership, or individual for whom the work is to be performed.

1.17 PROJECT: The undertaking to be performed as provided in the contract documents.

1.18 RESIDENT PROJECT REPRESENTATIVE: The authorized representative of the owner who is assigned to the project site or any part thereof.

1.19 SHOP DRAWINGS: All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the contractor, a subcontractor, manufacturer, supplier or distributor which illustrate how specific portions of the work shall be fabricated or installed.

1.20 SPECIFICATIONS: A part of the contract documents consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

1.21 SUBCONTRACTOR: An individual, firm or corporation having a direct contract with the contractor or with any other subcontractor for the performance of a part of the work at the site.

1.22 SUBSTANTIAL COMPLETION: That date as certified by the Engineer when the construction of the project or a specified part thereof is sufficiently completed in accordance with the contract documents so that the project or specified part can be utilized for the purpose for which it is intended.

1.23 SUPPLEMENTAL GENERAL CONDITIONS: Modifications to general conditions required by a Federal agency for participation in the project and approved by the agency in writing prior to inclusion in the contract documents, or such requirements that may be imposed by applicable state laws.

1.24 SUPPLIER: Any person or organization who supplies materials or equipment for the work including that fabricated to a special design, but who does not perform labor at the site.

1.25 WORK: All labor necessary to produce the construction required by the contract documents and all materials and equipment incorporated or to be incorporated in the project.

1.26 WRITTEN NOTICE: Any notice to any party of the agreement relative to any part of this agreement in writing and considered delivered and the service thereof completed when posted by certified or registered mail to the said party at his last given address or delivered in person to said party or his authorized representative on the work.

2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS:

2.1 The contractor may be furnished additional instructions and detail drawings by the Engineer as necessary to carry out the work required by the contract documents.

2.2 The additional drawings and instruction thus supplied will become a part of the contract documents. The contractor shall carry out the work in accordance with the additional detail drawings and instructions.

3. SCHEDULES, REPORTS AND RECORDS:

3.1 The contractor shall submit to the owner such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data where applicable as are required by the contract documents for the work to be performed.

3.2 Prior to the first partial payment estimate the contractor shall submit construction progress schedules showing the order in which he proposes to carry on the work including dates at which he will start the various parts of the work and, as applicable, the dates at which special detail drawings will be required and respective dates for submission of shop drawings, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.

3.3 The contractor shall also submit a schedule of payments that he anticipates he will earn during the course of the work.

4. DRAWINGS AND SPECIFICATIONS:

4.1 The intent of the drawings and specifications is that the contractor shall furnish all labor, materials, tools, equipment and transportation necessary for the proper execution of the work in accordance with the contract documents and all incidental work necessary to complete the project in an acceptable manner ready for use, occupancy or operation by the owner.

4.2 In case of conflict between the drawings and specifications, the specifications shall govern. Figure dimensions on drawings shall govern over scale dimensions and detailed drawings shall govern over general drawings.

4.3 Any discrepancies found between the drawings and specifications and site conditions or any inconsistencies or ambiguities in the drawings or specifications shall be immediately reported to the Engineer in writing who shall promptly correct such inconsistencies or ambiguities in writing. Work done by contractor after his discovery of such discrepancies, inconsistencies or ambiguities and prior to the Engineer's written response shall be done at the contractor's risk.

5. SHOP DRAWINGS:

5.1 The contractor shall provide shop drawings as may be necessary for the prosecution of the work as required by the contract documents. The Engineer shall promptly review all shop drawings. The Engineer's approval of any shop drawings shall not release the contractor from responsibility for deviations from the contract documents. The approval of any shop drawings, which substantially deviates from the requirement of the contract documents, shall be evidenced by a change order.

5.2 When submitted for the Engineer's review shop drawings shall bear the contractor's certification that he has reviewed, checked and approved the shop drawings and that they are in conformance with the requirements of the contract documents.

5.3 Portions of the work requiring a shop drawing or sample submission shall not begin until the shop drawing or submission has been approved by the Engineer. A copy of each approved shop drawing and each approved sample shall be kept in good order by the contractor at the site and shall be available to the Engineer.

6. MATERIALS, SERVICES AND FACILITIES:

6.1 It is understood that, except as otherwise specifically stated in the contract documents, the contractor shall provide and pay for all material, labor, tools, equipment, water, lights, power, transportation, supervision, temporary construction of any nature and all other services and facilities of any nature whatsoever necessary to execute, complete and deliver the work within the specified time.

6.2 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the work. Stored materials and equipment to be incorporated in the work shall be located so as to facilitate prompt inspection.

6.3 Manufactured articles, materials and equipment shall be applied, installed, connected, used, cleaned and conditioned as directed by the manufacturer.

6.4 Materials, supplies and equipment shall be in accordance with samples submitted by the contractor and approved by the Engineer.

6.5 Materials, supplies or equipment to be incorporated into the work shall not be purchased by the contractor or the subcontractor subject to a chattel mortgage or under a conditional sale contract or either agreement by which an interest is retained by the seller.

7. INSPECTION AND TESTING:

7.1 All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with generally accepted standards as required and defined in the contract documents.

7.2 The owner shall provide all inspection and testing services not required by the contract documents.

7.3 The contractor shall provide, at his expense, the testing and inspection services required by the contract documents.

7.4 If the contract documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any work to specifically be inspected, tested or approved by someone other than the contractor, the contractor will give the Engineer timely notice of readiness. The contractor will then furnish the Engineer the required certificates of inspection, testing or approval.

7.5 Inspections, tests or approvals by the Engineer or others shall not relieve the contractor from his obligations to perform the work in accordance with the requirements of the contract documents.

7.6 The Engineer and his representatives will at all time have access to the work. In addition, authorized representatives and agents of any participating Federal or State agency be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials and other relevant data and records. The contractor will provide proper facilities for such access and observation of the work and also for any inspection or testing thereof.

7.7 If any work is covered contrary to the written instructions of the Engineer it must be uncovered for the Engineer's observation and if requested by the Engineer be replaced at the contractor's expense.

7.8 If the Engineer considers it necessary or advisable that covered work be inspected or tested by others, the contractor at the Engineer's request will uncover, expose or otherwise make available for observation, inspection or testing as the Engineer may require, that portion of the work in question furnishing all necessary labor, materials, tools and equipment. If it is found that such work is defective the contractor will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such work is not found to be defective, the contractor will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate change order shall be issued.

8. SUBSTITUTIONS:

8.1 Whenever a material, article or piece of equipment is identified on the drawings or specifications by reference to brand name or catalog number it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, qualities and function shall be considered. The contractor may recommend the substitution of a material, article or piece of equipment of equal substance and function for those referred to in the contract documents by reference to brand name or catalog number and if in the opinion of the Engineer such material, article or piece of equipment is of equal substance and function to that specified the Engineer may approve its substitution and use by the contractor. Any cost differential shall be deductible from the contract price and the contract document shall be appropriately modified by change order. The contractor warrants that if substitutes are approved, no major changes in the function or general design of the project will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the contractor without a change in the contract price or contract time.

9. PATENTS:

9.1 The contractor shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the owner harmless from loss on account thereof, except that the owner shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, however, if the contractor has reason to believe that the design, process or product

specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Engineer.

10. SURVEYS, PERMITS, REGULATIONS:

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

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

10.3 Permits and licenses of a temporary nature necessary for the prosecution of the work shall be secured and paid for by the contractor unless otherwise stated in the supplemental general conditions. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the owner unless otherwise specified. The contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the contractor observes that the contract documents are at variance therewith, he shall promptly notify the Engineer in writing and any necessary changes shall be adjusted as provided in "Changes in Work" sections below.

11. PROTECTION OF WORK, PROPERTY AND PERSONS:

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

11.2 The contractor will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He will erect and maintain as required by the conditions and progress of the work all necessary safeguards for safety and protection. He will notify owners of adjacent utilities when prosecution of the work may affect them. The contractor will remedy all damage, injury or loss to any property caused, directly or indirectly in whole or in part by the contractor, any subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the contract documents or to the acts or omissions of the owner or the Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part to the fault or negligence of the contractor.

11.3 In emergencies affecting the safety of persons or the work or property at the site or adjacent thereto the contractor without special instruction or authorization from the Engineer or the owner shall act to prevent threatened damage, injury or loss. He will give the Engineer prompt written notice of any significant changes in the work or deviations from the contract documents caused thereby, and a change order shall thereupon be issued covering the changes and deviations involved.

12. SUPERVISION BY CONTRACTOR:

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

13. CHANGES IN THE WORK:

13.1 The owners may at any time, as the need arises, order changes within the scope of the work without invalidating the Agreement. If such changes increase or decrease the amount due under the contract documents or in the time required for performance of the work an equitable adjustment shall be authorized by change order.

13.2 The Engineer also may at any time by issuing a field order make changes in the details of the work. The contractor shall proceed with the performance of any changes in the work so ordered by the Engineer unless the contractor believes that such field order entitles him to a change in contract price or time or both in which event he shall give the Engineer written notice thereof within seven (7) days after the receipt of the ordered change. Thereafter the contractor shall document the basis for the change in contract price on time within thirty (30) days. The Contractor shall not execute such changes pending the receipt of an executed change order or further instruction from the owner.

14. CHANGES IN CONTRACT PRICE:

14.1 The contract price may be changed only by a change order. The value of any work covered by a change order or of any claim for increase or decrease in the contract price shall be determined by one or more of the following methods in the order of precedence listed below:

- (a) Unit prices previously approved.
- (b) An agreed lump sum.
- (c) The actual cost for labor, direct overhead, materials, supplies, equipment and other services necessary to complete the work. In addition there shall be added an amount to be agreed upon but not to exceed fifteen (15) percent of the actual cost of the work to cover the cost of general overhead and profit.

15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES:

15.1 The date of beginning and the time for completion of the work are essential conditions of the contract documents and the work embraced shall be commenced on a date specified in the Notice to Proceed.

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

15.3 If the contractor shall fail to complete work within the contract time or extension of time granted by the owner, the contractor will pay to the owner the amount for liquidated damages as specified in the bid for each calendar day that the contractor shall be in default after the time stipulated in the contract documents.

15.4 The contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due to the following and the contractor has promptly given written notice of such delay to the owner or Engineer.

(1) To any preference, priority or allocated order issued by the owner.

(2) To unforeseeable causes beyond the control and without the fault or negligence of the contractor including but restricted to acts of God, or 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

(3) To any delays of subcontractors occasioned by any of the causes specified in the two paragraphs above.

16. CORRECTION OF WORK:

16.1 The contractor shall promptly remove from the premises all work rejected by the Engineer for failure to comply with the contract documents, whether incorporated in the construction or not, and the contractor shall promptly replace and re-execute the work in accordance with the contract documents and without expense to the owner and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

16.2 All removal and replacement work shall be done at the contractor's expense. If the contractor does not take action to remove such rejected work within ten (10) days after receipt of written notice the owner may remove such work and store the materials at the expense of the contractor.

17. SUBSURFACE CONDITIONS:

17.1 The contractor shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the owner by written notice of:

(1) Subsurface or latent physical conditions at the site differing materially from those indicated in the contract documents, or

(2) Unknown physical conditions at the site of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract documents.

17.2 The owner shall promptly investigate the conditions and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the work an equitable adjustment shall be made and the contract documents shall be modified by a change order. Any claim of the contractor for adjustment thereunder shall not be allowed unless he has given the required written notice, provided that the owner may if he determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

18. SUSPENSION OF WORK, TERMINATION AND DELAY:

18.1 The owner may suspend the work or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the contractor by written notice to the contractor and the Engineer which notice shall fix the date on which work shall be resumed. The contractor will resume that work on the date so fixed. The contractor will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to any suspension.

18.2 If the contractor is adjudged a bankrupt or insolvent or if he makes a general assignment for the benefit of his creditors or if a trustee or receiver is appointed for the contractor or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to subcontractors, or for labor, materials or equipment or if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the work or if he disregards the authority of the Engineer, or if he otherwise violates any provision of the contract documents then the owner may, without prejudice to any other right or remedy, and after giving the contractor and his surety a minimum of ten (10) days from delivery of a written notice terminate the services of the contractor and take possession of the project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the contractor and finish the work by whatever method he may deem expedient. In such case the contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price exceeds the direct and indirect costs of completing the project, including compensation for additional professional services such excess shall be paid to the contractor. If such costs exceed such unpaid balance the contractor will pay the difference to the owner. Such costs incurred by the owner will be determined by the Engineer and incorporated in a change order.

18.3 Where the contractor's services have been so terminated by the owner said termination shall not affect any right of the owner against the contractor then existing or which may thereafter accrue. Any retention or payment of monies by the owner due the contractor will not release the contractor from compliance with the contract documents.

18.4 After ten (10) days from delivery of a written notice to the contractor and the Engineer the owner may, without cause and without prejudice to any other right or remedy, elect to abandon the project and terminate the contract. In such case, the contractor shall be paid for all work executed and any expense sustained plus reasonable profit.

18.5 If, through no act or fault of the contractor, the work is suspended for a period of more than ninety (90) days by the owner or under an order of court or other public authority, or the owner fails to pay the contractor substantially the sum approved by the Engineer or awarded by arbitrators within thirty (30) days of its approval and presentation then the contractor may, after ten (10) days delivery of a written notice to the owner and the Engineer, terminate the contract and recover from the owner payment for all work executed and all expenses sustained in addition and in lieu of terminating the contract. If the Engineer has failed to act on a request for payment or if the owner has failed to make any payment as aforesaid the contractor may upon ten (10) days written notice to the owner and the Engineer stop the work until he has been paid all amounts then due, in which event and upon resumption of the work change orders shall be issued for adjusting the contract price or extending the contract time or both to compensate for the costs and delays attributable to the stoppage of the work.

18.6 If the performance of all or any portion of the work is suspended, delayed or interrupted as a result of a failure of the owner or Engineer to act within the time specified, within a reasonable time, an adjustment in the contract price or an extension of the contract time, or both, shall be made by change order to compensate the contractor for the costs and delays necessarily caused by the failure of the owner or Engineer.

19. PAYMENTS TO CONTRACTOR:

19.1 At least ten (10) days before each progress payment falls due (but not more than once a month) the contractor will submit to the Engineer a partial payment estimate filled out and signed by the contractor covering the work performed during the period covered by the partial payment estimate and supported by such data as the Engineer may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the work but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data satisfactory to owner as will establish the owner's title to the material and equipment and protect his interest therein including applicable insurance. The Engineer will within ten (10) days after receipt of each partial payment estimate either indicate in writing his approval of payment and present the partial payment estimate to the owner, or return the partial payment estimate to the contractor indicating in writing his reasons for refusing to approve payment. In the latter case, the contractor may make the necessary corrections and resubmit the partial payment estimate. The owner will, within ten (10) days of presentation to him of an approved partial payment estimate, pay the contractor a progress payment on the basis of the approved partial payment estimate. The owner shall retain ten (10) percent of the amount of each payment until final completion and acceptance of all work covered by the contract documents. The owner at any time, however, after fifty (50) percent of the work has been completed, if he finds that satisfactory progress is being made, shall reduce retainage to five (5) percent on the current and remaining estimates. When the work is substantially complete (operational or beneficial occupancy) the retained amount may be further reduced below five (5) percent to only that amount necessary to assure completion. On completion and acceptance of a part of the work on which the price is stated separately in the contract documents payment may be made in full including retained percentages, less authorized deductions.

19.2 The request for payment may also include an allowance for the cost of such major materials and equipment, which are suitably stored either at or near the site.

19.3 Prior to substantial completion the owner with the approval of the Engineer and with the concurrence of the contractor may use any completed or substantially completed portions of the work. Such use shall not constitute an acceptance of such portions of the work.

19.4 The owner shall have the right to enter the premises for the purpose of doing work not covered by the contract documents. This provision shall not be construed as relieving the contractor of the sole responsibility for the care and protection of the work or the restoration of any damaged work except such as may be caused by agents or employees of the owner.

19.5 Upon completion and acceptance of the work the Engineer shall issue a certificate attached to the final payment request that he has accepted the work under the conditions of the contract documents. The entire balance found to be due the contractor, including the retained percentages but except such sums as may be lawfully retained by the owner, shall be paid to the contractor within thirty (30) days of completion and acceptance of the work.

19.6 The contractor will indemnify and save the owner or the owner's agents harmless from all claims growing out of the lawful demands of subcontractors, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, tools and all supplies incurred in the furtherance of the performance of the work. The contractor shall, at the owner's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged or waived. If the contractor fails to do so the owner may, after having notified the contractor either pay unpaid bills or withhold from the contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharge where upon payment to the contractor shall be resumed in accordance with the terms of the contract document, but in no event shall the provisions of this sentence be construed to impose any obligation upon the owner to either the contractor, his surety, or any third party. In paying any unpaid bills of the contractor any payment so made by the owner shall be considered as a payment made under the contract documents by the owner to the contractor and the owner shall not be liable to the contractor for any such payment made in good faith.

19.7 If the owner fails to make payment thirty (30) days after approval by the Engineer in addition to other remedies available to the contract there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the contractor.

20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE:

20.1 The acceptance by the contractor of final payment shall be and shall operate as a release to the owner of all claims and all liability to the contractor other than claims in stated amounts as may be specifically excepted by the contractor for all things done or furnished in connection with this work and for every act and neglect of the owner and others relating to or arising out of this work. Any payment, however, final or otherwise shall not release the contractor or his sureties from any obligations under the contract documents or the performance bond and payment bond.

21. INSURANCE:

21.1 The contractor shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the contractor's execution of the work, whether such execution be by himself or by any subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable:

- (1) Claims under workmen's compensation, disability benefit and other similar employee benefit acts.
- (2) Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees.
- (3) Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees.
- (4) Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the contractor, or (2) by any other person, and
- (5) Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

21.2 Certificates of insurance acceptable to the owner shall be filed with the owner prior to commencement of the work. These certificates shall contain a provision that coverages afforded under the policies will not be canceled unless at least fifteen (15) days prior written notice has been given to the owner.

21.3 The contract shall procure and maintain at his own expense during the contract time liability insurance as hereinafter specified:

- (1) Contractor's general public liability and property damage insurance including vehicle coverage issued to the contractor and protecting him from all claims for personal injury, including death, and all claims for destruction of or damage to property arising out of or in connection with any operations under the contract documents whether such operations be by himself or by a subcontractor under him or anyone directly or indirectly employed by the contractor or by a subcontractor under him. Insurance shall be written with a limit of liability of not less than \$500,000 for all damages arising out of bodily injury, including death, at any time resulting there from sustained by any one person in any one accident and a limit of liability of not less than \$500,000 aggregate for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than \$200,000 for all property damage sustained by any one person in any one accident and a limit of liability of not less than \$500,000 aggregate for any such damage sustained by two or more persons in any one accident.
- (2) The contractor shall acquire and maintain if applicable fire and extended coverage insurance upon the project to the full insurable value thereof for the benefit of the owner, the contractor and subcontractors as their interest may

appear. This provision shall in no way release the contractor or contractor's surety from obligations under the contract documents to fully complete the project.

21.4 The contractor shall procure and maintain at his own expense during the contract time in accordance with the provisions of the laws of the state in which the work is performed workmen's compensation insurance including occupational disease provisions for all of his employees at the site of the project and in case any work is sublet, the contractor shall require such subcontractor similarly to provide workmen's compensation insurance including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the contractor. In case any class of employees engaged in hazardous work under this contract at the site of the project is not protected under workmen's compensation statute, the contractor shall provide, and shall cause each subcontractor to provide adequate and suitable insurance for the protection of his employees not otherwise protected.

21.5 The contractor shall secure, if applicable, "All Risk" type builder's risk insurance for work to be performed. Unless specifically authorized by the owner the amount of such insurance shall not be less than the contract price totaled in the bid. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft and smoke during the contract time and until the work is accepted by the owner. The policy shall name as the insured the contractor, the Engineer and the owner.

22. CONTRACT SECURITY:

22.1 The contractor shall within ten (10) days after the receipt of the notice of award furnish the owner with a performance bond and a payment bond in penal sums equal to the amount of the contract price conditioned upon the performance by the contractor of all undertakings, covenants, terms, conditions and agreements of the contract documents and upon the prompt payment by the contractor to all persons supplying labor and materials in the prosecution of the work provided by the contract documents. Such bonds shall be executed by the contractor and a corporate bonding company licensed to transact such business in the state in which the work is to be performed and named on the current list of Surety Companies acceptable on Federal Bonds as published in the Treasury Department Circular Number 570. The expense of these bonds shall be borne by the contractor. If at any time a surety on any such bond is declared a bankrupt or loses its right to do business in the state in which the work is to be performed or is removed from the list of surety companies accepted on Federal bonds the contractor shall within ten (10) days after notice from the owner to do so substitute an acceptable bond (or bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the owner. The premiums on such bond shall be paid by the contractor. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable bond to the owner.

23. ASSIGNMENTS:

23.1 Neither the contractor nor the owner shall sell, transfer, assign or otherwise dispose of the contract or any portion thereof or his right, title or interest therein, or his obligations there under, without written consent of the other party.

24. INDEMNIFICATION:

24.1 The contractor will indemnify and hold harmless the owner and the Engineer and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work provided that any such claims, damages, loss or expense is attributable to bodily injury, sickness, disease or death or to injury to or destruction of tangible property, including the loss of use resulting there from and is caused in whole or in part by any negligent or willful act or omission of the contractor and subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

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

24.3 The obligation of the contractor under this paragraph shall not extend to the liability of the Engineer, his agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications.

25. SEPARATE CONTRACTS:

25.1 The owner reserves the right to let other contracts in connection with this project. The contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate his work with theirs. If the proper execution or results of any part of the contractor's work depends upon the work of any other contractor, the contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results.

25.2 The owner may perform additional work related to the project by himself or he may let other contracts containing provisions similar to these. The contractor will afford the other contractors who are parties in such contracts for the owner if he is performing the additional work himself reasonable opportunity for the introduction and storage of materials and equipment and the execution of work and shall properly connect and coordinate his work with theirs.

25.3 If the performance of additional work by other contractors or the owner is not noted in the contract documents prior to the execution of the contract written notice thereof shall be given to the contractor prior to starting any such additional work. If the contractor believes that the performance of such additional work by the owner or others involves him in additional expense or entitles him to an extension of the contract time he may make a claim therefor as provided in prior sections.

26. SUBCONTRACTING:

26.1 The contractor may utilize the services of specialty subcontractors on those parts of the work, which under normal contracting practices are performed by specialty subcontractors.

26.2 The contractor shall not award work to subcontractors in excess of fifty (50) percent of the contract price without prior written approval of the owner.

26.3 The contractor shall be fully responsible to the owner for the acts and omissions of his subcontractors and of persons either directly or indirectly employed by them as he is for the acts and omissions of persons directly employed by him.

26.4 The contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the contractor by the terms of the contract documents insofar as applicable to the work of subcontractors and to give the contractor the same power as regards terminating any subcontract that the owner may exercise over the contractor under any provision of the contract documents.

26.5 Nothing contained in this contract shall create any contractual relation between any subcontractor and the owner.

27. ENGINEER'S AUTHORITY:

27.1 The Engineer shall act as the owner's representative during the construction period. He shall decide questions that may arise as to quality and acceptability of materials furnished and work performed. He shall interpret the intent of the contract documents in a fair and unbiased manner. The Engineer will make visits to the site and determine if the work is proceeding in accordance with the contract documents.

27.2 The contractor will be held strictly to the intent of the contract documents in regard to the quality of materials, workmanship and execution of the work. Inspections may be made at the factory or fabrication plant of the source of material supply.

27.3 The Engineer will not be responsible for the construction means, controls, techniques, sequences, procedures or construction safety.

27.4 The Engineer shall promptly make decisions relative to interpretation of the contract documents.

28. LAND AND RIGHT-OF-WAY:

28.1 Prior to issuance of notice to proceed the owner shall obtain all land and right-of-way necessary for carrying out and for the completion of the work to be performed pursuant to the contract documents unless otherwise mutually agreed.

28.2 The owner shall provide to the contractor information which delineates and describes the lands owned and right-of-way acquired.

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

29. GUARANTY:

29.1 The contractor shall guarantee all materials and equipment furnished and work performed for a period of one (1) year from the date of substantial completion. The Contractor warrants and guarantees for a period of one (1) year from the date of substantial completion of the system that the completed system is free from all defects due to faulty materials or workmanship and the contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The owner will give notice of observed defects with

30. ARBITRATION: (Deleted) - Re Supplementary Conditions

31. TAXES:

31.1 The contractor will pay all sales, consumer, use and other similar taxes required by the law of the place where the work is performed.

SUPPLEMENTAL GENERAL CONDITIONS

These Supplementary Conditions to the Contract amend or supplement the General Conditions and other provisions of the Contract Documents as indicated below. All provisions which are not as amended or supplemented remain in full force and effect.

SURVEYS, PERMITS, REGULATIONS:

Add the following to Section 10.3:

The Contractor shall be responsible for securing and paying for all required Federal, State and City permits and licenses necessary for the prosecution of the work. The Contractor prior to commencing work on this project shall be licensed in the City of Yankton as a "Water and Sewer Installation Contractor" or a "Plumbing Contractor" if any water and sanitary sewer work is a part of the project. However, prior to issuing a city license the Contractor shall be licensed as a "Water and Sewer Installation Contractor" or be licensed as a "Plumbing Contractor" in the State of South Dakota, if any water or sanitary sewer system work is called for in this contract.

SUBSURFACE CONDITIONS:

SC.17. Delete paragraph 17.2 of the "General Conditions" entirely and in its place insert the following:

17.2. No subsurface exploration other than that listed on the construction plans was conducted at the proposed construction site. The Contractor is responsible to obtain any information he deems appropriate to allow him to perform the work at the price bid. No extra compensation will be allowed by the Owner for unusual subsurface conditions unless the Engineer finds that such conditions warrant extra compensation.

INSURANCE:

SC.21. Delete paragraph 21 of the General Conditions in its entirety and insert in its place the following:

21.1 During the term of this Contract, the Contractor shall maintain such insurance as will protect him from claims as set forth below which may arise out of or result from the Contractor's operations under the Contract, whether such operations be by himself or by a subcontractor or sub-subcontractor or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be held liable:

(A) for claims arising under any Workmen Compensation, Employers Liability, or any similar employee benefit acts;

(B) for claims because of bodily injury, sickness, disease or death of any person or persons other than his employees, and for claims because of damage to or destruction of property of others resulting therefrom, including loss of use thereof.

Such insurance shall be written for amounts not less than the following as respects subparagraph (A) above:

Workmen's Compensation
Employers Liability

Statutory
\$500,000 each occurrence;

and as respects subparagraph (B) above:

- | | | |
|-----|--|---|
| 1. | Bodily Injury and Property
Damage with a Combined Single
Limit of Liability of | \$1,000,000 each occurrence,
including collapse and underground liability |
| or | | |
| 2. | Bodily Injury:
General and Automobile | \$1,000,000 each person |
| and | General and Automobile | \$1,000,000 each occurrence, including
collapse and underground liability |
| and | Property Damage:
General and Automobile
General | \$500,000 each occurrence
\$500,000 aggregate, including collapse
and underground liability |

The insurance referred to in subparagraph (B) above shall be written under the Comprehensive General and Comprehensive Automobile Liability policy forms, including coverage for all owned, hired, and non-owned automobiles. The Contractor may at his option provide the limits of liability as set out above by a combination of the above described policy forms and an Umbrella Excess Liability policy. Unless otherwise specifically approved in writing by the Owner the policies shall be written on an "occurrence" basis and not on a "claims made " basis.

"The First National Bank in Sioux Falls" must be listed (as shown here in quotes) as an additional insured party on the contractor's insurance certificate.

"All Risk" type builder's risk insurance **will not** be required on this project.

All responsibility for payment of any sums resulting from any deductible provisions, corridor, or self-insured retention conditions of the policy or policies shall remain with the Contractor.

Proof of insurance shall be submitted directly to the Owner for review and approval with a record copy only to the Engineer for his files. The Contractor shall not begin any work until the Owner has reviewed and approved the Insurance Certificate and has so notified the Contractor directly in writing. Any Notice to Proceed issued shall be subject to such approval by the Owner.

ARBITRATION: Delete Paragraph 30 "Arbitration" in its entirety.

MEASUREMENT AND PAYMENT

GENERAL

The method of measurement and basis of payment described are for work itemized in the Bid Form and in the sections of the specifications. Items may include work within a single section or in more than one section.

MEASUREMENT

When the contract stipulates that payment will be made on a lump sum basis, no separate measurement will be made. When the contract stipulates that payment will be made on a unit basis, measurement will be made by the unit stipulated in the contract.

Unless otherwise specified, all longitudinal measurements will be made vertically, and computation will be neat dimensions shown on the drawings and details.

Quantities will be rounded off to the nearest whole unit.

PAYMENT

Provided the Contractor meets the requirements of the plans and specifications and the provisions for the contract proposal, payment will be made at the applicable unit price or lump sum in the bid schedule for the quantities as directed by the engineer to be installed in the field. Plan quantities are not to be exceeded without written approval of the Engineer.

Unit or lump sum bid prices as quoted in the Bid Form shall be full compensation for labor, materials, fabricating, tools, transporting, mobilization and demobilization, delivering, placing of materials, equipment, rentals, overhead, profit, and incidentals to furnish and install and complete all work in each pay item; and for all risk, loss, damage, fees, taxes or expense of whatever nature arising from the nature of the work of the prosecution thereof.

Work or materials that are essential to the work, but for which there are not pay items, will not be measured and paid for separately, but shall be included in other items of work.

MEASUREMENT AND PAYMENT ITEMS

1. **Mobilization:** – **Lump sum** price for all preparatory work and operations, including, but not limited to the necessary movement of personnel, equipment, and incidentals to the project site; for the establishment of offices, buildings and other facilities necessary for work on the project; for work and operations which must be performed, and for costs incurred before starting work on the various contract items on the project site. Mobilization will be paid for as outlined in Section 9.10 of the 1998 South Dakota DOT Standard Specifications.
2. **Traffic Control:** - **Per each** unit price is for furnishing, installing, and maintaining the traffic control devices shown on the plans. All traffic control devices and locations shall conform to the latest edition of the "Manual on Uniform Traffic Control Devices". The unit price shall be full compensation for re-locations or re-installing any sign or device during the duration of the project as directed by the Engineer.
3. **Traffic Control Misc.:** - **Lump sum** unit price is for furnishing, installing, and maintaining the small barricades, drums, cones, etc. at all other areas of the project that are not shown on the plans. All traffic control devices and locations shall conform to the latest edition of the "Manual on Uniform Traffic Control Devices." The lump sum price shall be full compensation for any re-location or re-installing of any device due to change in traffic patterns, scheduling, or as deemed necessary by the Engineer through the duration of the project.
4. **Saw Existing Concrete:** – **Per linear foot** unit price shall be full compensation for sawing existing concrete pavement to get a final vertical surface acceptable to the Engineer. Measurement will be to the nearest whole foot of sawing.
5. **Saw Existing Asphalt Concrete:** – **Per linear foot** unit price shall be full compensation for sawing existing asphalt concrete to get a final vertical surface acceptable to the Engineer. If the Engineer determines that conditions are acceptable for using a colter wheel, a colter wheel will be used and no payment will be allowed for the work. Measurement will be to the nearest whole foot of sawing.
6. **Removal of Concrete Pavement:** - **Per square yard** unit price as marked and measured in the field prior to construction, and removed to the thickness encountered in the field. This price and payment shall be full compensation for hauling, handling, excavating, sawing, transporting to City stockpile at 23rd and Kellen Gross Drive, and any other items that may pertain to the removal of concrete. This item will be used for all concrete removal including pavements, sidewalks, curb and gutter, driveway approaches and fillets. No extra payment will be made for concrete that contains reinforcement of any kind.
7. **Removal of Asphalt Concrete:** - **Per square yard** unit price as marked and measured in the field prior to construction, and removed to the thickness encountered in the field. This price and payment shall be full compensation for hauling, handling, excavating, transporting to City stockpile at 23rd and Kellen Gross Drive, and any other items that may pertain to the removal of the asphalt concrete. **Removal of Curb and Gutter:** - **Per linear foot** unit price shall be full compensation for removing and disposing of the concrete curb and gutter noted on the plans and marked in the field to be removed by the contractor. The removal shall be measured to the nearest whole linear foot.

8. **Removal of Curb and Gutter: - Per linear foot** unit price shall be full compensation for removing and disposing of the concrete curb and gutter noted on the plans and marked in the field to be removed by the contractor. The removal shall be measured to the nearest whole linear foot.
9. **Unclassified Excavation: – Lump sum** price will include all excavation, scarifying and recompacting, embankments, topsoil salvage, hauling, compaction, stockpiling, placing, spreading, and fine grading the surface smooth. Quantities and volumes are listed on the plans for information only. Bidder must determine the accuracy of quantities given and apply appropriate shrink factor prior to bidding. Price is to include scarifying and recompacting the subgrade six (6) inches deep in areas of street pavement if required by plan notes. Payment will be based on the plan quantity. If significant additions or reductions are made, the price will be adjusted accordingly based on the unit prices. It is the contractor's responsibility to locate a place for disposal.
10. **Undercutting: - Cubic yard** unit price will be for area and depth directed by engineer to be removed. Unit price will include all items listed under earthwork item. Payment will be full compensation for work over and above that normally required for excavation to finished subgrade.
11. **Water for Embankment or Granular Material: - Per thousand gallons** unit price will include furnishing, hauling and incorporating the water into the embankment or granular material. Payment will be based on the measured gallons of water used.
12. **Topsoil: - Lump sum** price will include loading, hauling, placing and fine grading to a smooth surface and ready for seeding and sodding. Quantities and volumes are listed on the plans for information only. Bidder must determine the accuracy of quantities given and apply appropriate shrink factor prior to bidding.
13. **Seeding, Mulching and Fertilizer: – Lump sum** price will be full compensation for all soil preparation, labor, seed, mulch and fertilizer required for the project.
14. **Temporary Vehicle Tracking Control: - Per each** unit price shall be the amount paid for each site where the Engineer requires the use of the temporary vehicle tracking control for however long as it is needed. The gravel utilized in the vehicle tracking pad shall be paid for at the unit price bid for service gravel. The temporary vehicle tracking control unit price shall be full compensation for installing, maintaining and removing the device along with cleaning tracked soil from the adjacent street surfacing. The Contractor will be charged \$50.00 for each day that dirt is not cleaned off of the adjacent street after it is placed or tracked onto the adjacent street.
15. **Inlet Sediment Control: - Per each** unit price shall be full compensation for furnishing and installing the plan specified material to prevent sediment from entering drop inlets, junction boxes, manholes, etc.
16. **Silt Fencing: - Per linear foot** unit price as stipulated in the proposal, and called for by the specifications. The Contractor shall regularly inspect and maintain the silt fences. The unit price shall be full compensation for the installation, maintenance, and removal of the silt fence.

- 17. Geotextile Fabric: - Per square yard** unit price shall be the amount paid for all labor, equipment and material, as described in plans, required for the proper installation of fabric. Installation shall be in accordance with the manufacture's recommendations. Overlap shall be a minimum of 24 inches. The end of the roll overlaps shall be three feet minimum. Measurement for payment excludes the fabric used for overlapping as well as seam overlaps.
- 18. Watermain & Service Lines: - Per linear foot** unit price is for the size, type, and class of pipe as stipulated in the proposal or as shown on the plans. This price and payment shall be full compensation for furnishing and installing pipe, hauling, handling, boring or excavating, dewatering, laying, jointing, bedding, backfilling, shoring, water for compaction, compacting, extra depth as shown on plans or as is necessary to avoid conflict with other (existing and proposed) utilities, copper wire, temporary fittings and plugs to maintain water service, testing and disinfection of the furnished pipe line in accordance with the plans and specifications. The unit price also includes dewatering and cleanup of the work area. Ground surface is to be graded smooth in anticipation of seeding or pavement materials.
- 19. Gate Valves and Valve Boxes: - Per each** unit price includes the size and type as stipulated in the bid proposal, and called for by the specifications. This price and payment shall be full compensation for furnishing and installing valves and boxes in the proper location, adjusting to grade, poly wrapping, and items listed with watermain installation.
- 20. Specials and Fittings: - Per each** includes the various kinds and sizes as stipulated in the proposal. This price and payment shall be full compensation for furnishing and installing of fittings, poly wrapping, thrust restraint, appurtenances and items listed with watermain installation.
- 21. Granular Material for Watermain: - Per linear foot** unit price shall be full compensation for furnishing and installing granular material under, around and above the watermain, measured to the nearest whole linear foot.
- 22. Temporary Fire Hydrant: - Per each** unit price shall be full compensation to set a fire hydrant to provide for flushing out the watermain, sampling the watermain for bacteria and then removing the fire hydrant after the testing is completed.
- 23. Cut and Tie to Existing Watermain: - Per each** unit price shall be full compensation for excavation and backfilling, cutting the existing watermain, draining the pipe and dewatering as necessary, furnishing all labor necessary to do the work and to contact the affected water users. These items will be counted as noted on the plans. Where a single valve, plug, cap, etc. is cut in, the cut and tie to existing watermain bid item will only be paid for once.
- 24. Water Service Line Reconnection: - Per each** includes furnishing and installing service saddle, corporation stop, pipe, pipe fittings and sleeves as are necessary to reconnect existing services to new main. Includes temporary service arrangements if necessary.
- 25. Removal Fire Hydrant: - Per each** unit price shall be full compensation for excavating, removing, backfilling, and salvaging a fire hydrant. The salvaged hydrant shall remain on the project site until removed by the City of Yankton.

- 26. Install Fire Hydrants: - Per each** includes the style and type as stipulated in the proposal. This price and payment shall be full compensation for installing of hydrants, in the proper location, thrust restraint, poly wrap and crushed rock drain field.
- 27. Granular Material for Watermain: – Per linear foot** unit price shall be full compensation for furnishing and installing granular material under, around and above the watermain, measured to the nearest whole linear foot.
- 28. Sanitary Main Removal and Replacement: - Per linear foot** unit price for the type and class of pipe as stipulated in the proposal or as shown on the plans. This price and payment shall be full compensation for furnishing and installing pipe, hauling, handling, excavating, dewatering, laying, jointing, bedding, backfilling, shoring, water for compaction, compacting, extra depth as shown on plans or as is necessary to avoid conflict with other (existing and proposed) utilities, connection into existing manholes/mains, sleeves, and testing in accordance with the plans and specifications. It shall also include the cost for removing and disposing of the existing sewer piping that is being replaced. The unit price is also to include dewatering and cleanup of the work area. Ground surface is to be graded smooth in anticipation of seeding or pavement materials.
- 29. Sanitary Sewer Manhole: - Per each** unit price shall be for the type size and depths stipulated in the proposal and as shown on the plans. Unit price will include grouting, ring and cover, adjusting rings, adjusting height of casting to final grade, steps, fasteners, and all appurtenance necessary to furnish in place completed facility.
- 30. Tie Into Existing Manhole: - Per each** unit price will be full compensation for the excavation, coring, grouting and all other work required to fully accomplish the required connection.
- 31. Granular Material for Sewer: – Per linear foot** unit price shall be full compensation for furnishing and installing granular material, as detailed in the plans. Quantity will be measured to the nearest whole linear foot.
- 32. Concrete Curb & Gutter: - Per linear foot** unit price includes general items for concrete pavement placement for the type and style stipulated and shall be full compensation for measured in place curb and gutter consisting of Class M-6 Concrete (curved and straight sections if not separated on bid form). Separate payment will not be made for dropping curb for sidewalk handicap ramps. Gravel cushion under the curb and gutter is being paid for under the bid item for gravel cushion/aggregate base course.
- 33. Sidewalk and Approach Pavement: - Per square foot** unit price shall be for the thickness as stipulated in the proposal or shown on the plans. Shall be full compensation for measured in place sidewalk or approach pavement, consisting of SDDOT Class M-6 on bid proposal. Concrete placed as directed. Includes aggregate base course material used for fine grading and general items for concrete pavement. This unit price will be applied for sidewalk and approach ramps behind curbs as stipulated on bid form.
- 34. Aggregate Base Course (as Gravel Cushion): - Per square yard** unit price includes loading hauling, compacting, installing and shaping to depth called for on plans. Measurement will be based on areas of P.C.C. pavement, fillets and valley gutters where called for in the plans and specifications. Does not include aggregate for sidewalks and approach pavement areas. **(City of Yankton to supply material)**

- 35. Insert Steel Bars in PCC Pavement: - Per each** unit price for furnishing and installing the steel bars called out in the plans, specifications and standard plates.
- 36. Concrete Fillet Section and/or Valley Gutter: - Per square foot** unit price will be for fillets or valley gutter without reinforcing steel. Concrete is to contain fiber mesh as specified. Unit price includes all general concrete work items. Curb attached to fillets is considered part of fillet and no separate measurement will be made for curb attached to fillet.

TECHNICAL INFORMATION AND REQUIREMENTS

SECTION 101 GENERAL:

The following requirements are a part of the General Conditions of the contract and shall be used in conjunction with them as a part of the contract documents. Should there be any conflict in the General Conditions, these requirements shall govern.

SECTION 102 REQUEST FOR APPROVAL - PRODUCTS AND MANUFACTURERS:

Equivalents to specified products may be accepted at the approval of ENGINEER. Requests for approval of products or material other than those specifically named in the project manual shall be submitted to the ENGINEER for consideration and recommendations at least ten (10) days prior to bid date.

Specific items scheduled by manufacturer catalog numbers are to be used as a basis for bidding. Listing of other products or manufacturers by name shall not in any way be construed as being equal or equivalent for bidding purposes.

All component parts, equipment and materials furnished shall be new, unused, and the same as the manufacturer's current production models.

SECTION 103 REPORTS AND TESTING:

103.1 Laboratory Testing. Certain tests and inspections will be necessary for quality control as specified for this project. The OWNER is scheduled to perform the tests and inspections; if not called for in other sections of the specifications, utilizing recognized standard procedures and criteria. Retests required due to initial test failures will be paid for by the CONTRACTOR.

The CONTRACTOR shall furnish all sample materials required for these tests and shall deliver same without charge to the OWNER when and where directed by the OWNER. Any additional tests necessary beyond those required under this specification may be ordered by the ENGINEER to settle disagreements with the CONTRACTOR regarding quality of work done. If the work is defective, the CONTRACTOR shall pay all costs of the extra tests and shall correct the work.

If work is satisfactory, the OWNER will pay for extra tests. Quality testing shall include, but not necessarily be limited to, concrete testing, aggregate testing, soils testing, compaction testing and the like.

103.2 Factory Testing. Factory tests of any materials relative to performance, capacity, rating, efficiency, function, or special requirements shall be conducted in the factory or shop for each item when this type of test is specified and/or required by the ENGINEER. These tests shall be performed in accordance with applicable standards and test codes.

Factory tests shall be set up and accomplished by the equipment manufacturer who shall provide all shop space, tools, equipment, instruments, personnel, and other facilities required for the satisfactory completion of each test. Test data and results shall be submitted to the ENGINEER for his review and approval.

The cost of factory tests shall be included in the bid price of the contract and no additional payment will be made for factory testing.

SECTION 104 EXAMINATION OF PREMISES:

The CONTRACTOR shall inform himself of conditions under which the work is to be performed, concerning the site of the project, the obstacles that may be encountered and all other relevant matters concerning the work to be performed. No extra compensation will be allowed for failure to secure information available prior to bidding.

SECTION 105 MEASUREMENTS AND PAYMENT FOR INCIDENTAL WORK:

Prices bid for bid item shall represent full compensation for all labor, materials, equipment, supervision and other incidental items necessary for the performance and completion of each item of work in place, in strict accordance with the Contract Documents. Payment for said item shall therefore include all work, which may be reasonably inferred from the contract documents as being necessary to produce the intended results. All items of work necessary to produce the intended results not specifically contained in the Bid Form shall be considered incidental work to the bid item, and no allowance for separate, additional compensation shall be made.

SECTION 106 ERRORS, OMISSIONS, AND DISCREPANCIES:

In the event any error, omission, or discrepancy in or between the plans and specifications exists or appears to exist, the contractor shall not take advantage of same, but must have same explained or adjusted by the engineer before submitting his proposal. Should the contractor fail to give notice and obtain a written decision, clarifying materials or methods required, he shall be deemed to have estimated on the more expensive way of doing the work and shall at his own expense, make good any damage to or defect in his work.

SECTION 107 CONTRACTORS RESPONSIBILITY:

Until the final acceptance of the work as evidenced in writing, the CONTRACTOR shall have charge and care thereof and shall take every necessary precaution against injury or damage to any part of the work by action of the elements or other causes. The CONTRACTOR shall make good all damages occurring to any portion of the work before its completion and acceptance and shall bear the expense thereof.

Any material that is lost or stolen before or after it is in place, but before acceptance of the work by the owner, shall be made good at the contractor's expense.

Unless otherwise specified, each CONTRACTOR shall supply all labor, transportation, materials, apparatus, and tools necessary for the entire, proper, and substantial completion of his work, and shall install, maintain, and remove all equipment of the construction and other utensils or things, and be responsible for the safe, proper, and lawful construction, maintenance, and use of same; and shall execute the work in the best and most workmanlike manner, complete with everything properly incidental thereto as shown on the plans, stated in the specifications, or reasonably implied therefrom, all in accordance with the contract documents.

SECTION 108 LAYING OUT WORK:

The OWNER will provide reference control points and construction control staking unless provided elsewhere in the specifications. The CONTRACTOR shall be responsible for careful preserving all benchmarks, construction stakes, reference points and monuments. Should destruction of same occur, the CONTRACTOR will bear the expense of their replacement and shall be held responsible for any mistakes or loss of time that may be caused. Permanent benchmarks or monuments, which must be removed or disturbed, shall be protected until properly referenced for relocation.

SECTION 109 WORKMANSHIP:

All work shall be done by competent skilled workmen of the different trades to insure a degree of workmanship acceptable to the ENGINEER. There shall be a foreman on the job at all times during working hours who has the authority to act for the CONTRACTOR, to make necessary decisions, and to carry out directions of the CONTRACTOR and the ENGINEER. In the event the CONTRACTOR does not have a complete understanding concerning the work or the materials, he shall refer the matter to the ENGINEER for opinion or decision. This will, however, not relieve the CONTRACTOR of any responsibility concerning the work.

The CONTRACTOR shall notify the ENGINEER before any work is covered up on his work, or on any mechanical work.

The CONTRACTOR shall not install work covering the other trades until they have made their complete installation.

Any work not acceptable shall be promptly removed and replace at the CONTRACTORS expense and the ENGINEER notified of compliance for inspection.

SECTION 110 SUB-BIDDERS AND BREAKDOWN:

The CONTRACTOR shall be responsible for scheduling and coordinating the work of his own crews as well as those of all his Subcontractors and others involved in order to maintain acceptable progress and assure timely completion in accordance with the contract time frame. The CONTRACTOR shall be responsible for complete supervision, control, and progress of his Subcontractors as though they were his own forces. Notice to the CONTRACTOR shall be considered as notice to all affected subcontractors. The CONTRACTOR shall, upon award of the contract, supply the ENGINEER with a complete list of Sub-bidders and Material Suppliers for his approval. Within ten (10) days after award of the contract the CONTRACTOR shall submit a complete breakdown of labor and materials for the ENGINEER'S records.

SECTION 111 SUBCONTRACTORS:

All work of the SUBCONTRACTORS for each separate division of the project shall be subject to the Instructions to Bidders, General Conditions and Supplements, and Special Conditions, as if repeated in each separate section of the project manual.

SECTION 112 INTERRUPTION OF UTILITY SERVICE AND ACCESS:

The CONTRACTOR shall make every possible effort to minimize the downtime of any utilities or property access, which may be directly or indirectly affected by work performed on this project. The CONTRACTOR shall at all times conduct his work in such a manner as to cause minimum interference with routine daily use.

The CONTRACTOR shall notify residents affected by his proposed action at least twenty-four (24) hours in advance of such interruptions in residential, commercial and industrial areas and all other areas.

Notification is to be coordinated with City or other appropriate utility service providers.

SECTION 113 EXISTING FACILITIES:

The CONTRACTOR shall take complete field measurements affecting all existing construction in the work, and he shall be solely responsible for proper fit between his work and existing structures.

He shall examine all work to which he will connect; and if any misalignment is found he shall so arrange his work that the misalignment is corrected. Any dimensions given on the Drawings related to existing structures are based on available records and it shall be the responsibility of the CONTRACTOR to verify the accuracy of these dimensions. Any discrepancies shall be brought to the attention of the ENGINEER prior to start of new construction.

SECTION 114 PROTECTION OF EXISTING STRUCTURES AND ADJACENT PROPERTIES:

The CONTRACTOR will be held responsible for any damage to existing structures, work, materials, or equipment either on site or off site because of his operations and shall repair or replace any damaged structures, work, materials, or equipment to the satisfaction of, and at no additional cost to the OWNER. The CONTRACTOR shall be responsible for all damage to streets, roads, curbs, sidewalks, highways, shoulders, ditches, embankments, culverts, bridges, or other public or private property structure or facilities which may be caused by transporting equipment, materials, or men to and from work, wind, drainage or other natural events, or by performance of the work. The CONTRACTOR shall make satisfactory and acceptable arrangements with the agency having jurisdiction over the damaged property concerning its repair or replacement.

SECTION 115 PROTECTION OF EXISTING UTILITIES:

It is the sole responsibility of the CONTRACTOR to verify the exact location of any and all existing utilities. Locations of any utility shown on the drawings are for informational purposes only and may not represent the exact location, size, type, or depth of said utility. The CONTRACTOR shall give notice to the owners of any such lines or obstructions in order that they may have time to take necessary precautions for protecting their property. Existing utilities shall be protected from damage during excavation and backfilling operations and if damaged, shall be promptly repaired by the CONTRACTOR at his expense. The CONTRACTOR shall be responsible for any injuries to persons and property, for all damages to any pipe, conduit, sewer or other structure injuriously affected by the work and shall save harmless the OWNER, ENGINEER, and state and federal agencies from any liability thereof.

BEFORE DIGGING CALL 1-800-781-7494 (South Dakota One Call)

SECTION 116 ADVERSE CONSTRUCTION CONDITIONS:

In the event of unsatisfactory weather, wet ground, or other unsuitable construction conditions, the CONTRACTOR shall confine his operations to those portions of the work, which will not be adversely affected. No portion of the work shall be constructed under conditions, which would compromise the quality required unless special precautions are taken by the CONTRACTOR to perform the work in a satisfactory manner acceptable to the ENGINEER.

SECTION 117 SALVABLE EQUIPMENT AND MATERIAL:

Any equipment or materials removed during construction, which is deemed salvable by ENGINEER, shall remain the property of the OWNER and shall be carefully preserved by the CONTRACTOR.

SECTION 118 CLEANING UP:

The site shall be kept in a tidy condition at all times during the work, and all rubbish removed from the premises. No final payment will be made until all rubbish and debris has been removed. No burning will be permitted on the premises.

The CONTRACTOR and each individual subcontractor shall at all times keep the premises free from accumulations of waste material or rubbish caused by his employees or work, and at the completion of work he shall remove all his rubbish from and about the work site and all his tools, scaffolding, and surplus material. He shall leave his work in a manner acceptable to the ENGINEER.

SECTION 119 RESPONSIBILITY FOR WORK (WARRANTY):

Neither the final certificates, nor payment, nor any provision in the contract documents, shall relieve the CONTRACTOR for responsibility for faulty materials or workmanship and, unless otherwise specified, he shall remedy any defects due thereto and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of final acceptance. The OWNER shall give notice of observed defects with reasonable promptness.

SECTION 120 TEMPORARY CONSTRUCTION FACILITIES:

Site facilities, which are necessary for construction, shall be provided by and paid for by the CONTRACTOR. These may include but are not necessarily limited to material storage and/or waste areas, utility costs, office space, toilet facilities, storage buildings for the protection of materials and equipment, or other services. As requested by the State Historical Preservation Office (SHPO, staging areas for heavy equipment and material storage must be confined to previously disturbed road right-of-way or established parking lots. All such field office, storage sheds, and the like shall remain the property of the CONTRACTOR and shall be removed after completion of the work and the site restored to its original condition.

When necessary, the CONTRACTOR shall make his own arrangements for electrical power and telephone service at the construction site. Obtaining water for construction purposes shall also be the responsibility of the CONTRACTOR.

The CONTRACTOR shall contact the OWNER to inquire about possible storage areas and material waste areas. However the CONTRACTOR shall be responsible for securing these areas.

SECTION 121 RECORD COPY OF CONTRACT DOCUMENTS:

The CONTRACTOR shall maintain a careful up-to-date record of all changes on the drawings during construction. Upon completion of the work, and prior to acceptance by the OWNER, the CONTRACTOR shall file with the ENGINEER one set of complete drawings with all changes and CONTRACTOR'S field construction notes neatly and legibly recorded thereon. Such drawings shall include the exact routing, if changed from drawing location, of sewer, water, gas, fuel oil tanks and lines, buried electrical feeder lines, changes to routing of conduit runs which are buried or concealed in concrete slabs, and any other major buried utility lines. Such information may be used to prepare record drawings for the OWNER.

SECTION 122 TRAFFIC CONTROL:

Traffic control necessary for the completion of the project and related operations is considered incidental to the other bid items unless specifically listed as a bid item. All traffic control is to be in accordance with the "Manual on Uniform Traffic Control Devices".

SECTION 123 GENERAL NOTES AND TECHNICAL SPECIFICATIONS:

The project manual is divided into various divisions and sections for the convenience of the contractors. Each division is not necessarily all-inclusive as related items may appear in various divisions. The contractor shall be solely responsible to furnish and install all items shown on the drawings, and/or included in the project manual regardless of where they appear.

For this project, the OWNER is incorporating the latest Edition of the South Dakota Department of Transportation (DOT) Standard Specifications for Roads and Bridges. Specific Construction Sections may include:

<u>Section</u>	<u>Description</u>
100	Clearing & Grubbing
110	Removal of Structures & Obstructions
120	Roadway & Drainage Excavation & Embankment
230	Top Soil
250	Incidental Work
380	Portland Cement Concrete
450	Pipe Culverts
462	Concrete for Incidental Construction - Class M-6
480	Reinforcing Steel
634	Traffic Control
882	Aggregates for Granular Bases and Surfacing

Where specific SDDOT specification sections are not mentioned above but are referenced in any of the sections listed above, or relate to work called for on the drawings, those sections will also apply.

Where project manual information conflicts with DOT standards, project manual will govern.

SECTION 124 COMPACTION OF EARTH EMBANKMENTS AND TRENCH BACKFILLING:

All earth embankments and trench backfill will be compacted to 95% of maximum dry density as determined by AASHTO T-99 unless otherwise specified. Compaction of earth embankments shall be governed by the ordinary compaction method (South Dakota Specifications for Roads and Bridges 1998).

The Transportation Enhancement Materials Manual will be used for testing and materials criteria.

**CITY OF YANKTON
STANDARD SPECIFICATIONS**

**SECTION 203
EXCAVATION, TRENCHING AND BACKFILLING**

203.1 DESCRIPTION:

Trench excavation and backfill shall include all excavation, backfilling, disposal of surplus material, and all other work incidental to the construction of trenches, including any additional excavation which may be necessary for manholes, fire hydrants, inlets, or other structures forming a part of the pipe line.

Work shall be in conformance with all local, State, Federal and other regulatory requirements pertaining to such work.

203.2 CONSTRUCTION REQUIREMENTS:

A. Excavation: The length of trench excavated in advance of pipe laying shall be kept to a minimum, and in no case shall it exceed 200 feet for sewers or water unless specifically authorized in writing by the Engineer. Minimum trench width for water at the bottom shall be equal to the outside diameter of the pipe plus sixteen (16) inches unless otherwise specified. For sewers, trench widths at the bottom shall not exceed:

15 inch diameter and smaller - 40 inches

18 inch diameter and larger - 1-1/2 x inside diameter plus 18 inches

In all cases, trenches must be of sufficient width to permit proper jointing of the pipe and backfilling of material around it. Trench width at the surface of the ground shall be kept to a minimum amount necessary to install the piping in a safe manner. Trenches shall be kept as nearly vertical as practicable or if required by the angle of repose of the material, the banks may be sloped a reasonable amount, or if required, the banks shall be properly sheathed and braced.

Excavation of manholes and other structures shall be sufficient to provide a minimum of 12 inches between surfaces and the sides of the excavation.

All material excavated from trenches and piled adjacent to the trench or in a roadway or public thoroughfare shall be piled and maintained so that the toe of the slope of the material is at least 2 feet from the edge of the trench. It shall be piled in such a manner as will cause a minimum of inconvenience to public travel, and provisions shall be made for merging traffic where such is necessary. Free access shall be provided to all fire hydrants, water valves and meters and clearance shall be left to enable free flow of storm water in all gutters, other conduits, and natural water courses.

If the contractor elects to bore or jack any portion not so specified, he shall first obtain approval from the Engineer.

The bottom of the trench shall be carried to the lines and grades shown on the plans or established by the Engineer, or at depths noted on the plans or in the specifications. Any excavation below the depths indicated shall be backfilled with select backfill material and compacted at the Contractor's expense.

Unstable soil shall be removed and replaced with gravel, crushed stone, or crushed slag, which shall be thoroughly tamped. The Engineer shall determine the depth of removal of unstable soil. The Contractor will not be paid extra for removing unstable soil and replacing with gravel, crushed rock or crushed slag unless separate unit price is provided for on the bid form.

The bottom of the trenches shall be accurately graded to provide uniform bearing and support for each length of pipe on undisturbed or compacted soil at every point along its entire length except at joints. Bell holes shall be excavated to assure even bearing of the pipe upon the bedding material and to permit accurate work in making and inspecting the joints.

B. Dewatering: Pipe trenches shall be kept free from water during pipe laying and jointing by such methods as the Contractor may elect, provided the method is acceptable to the Engineer. The Contractor shall be responsible for any damages of any nature resulting from the dewatering operations. Dewatering of the trench shall be considered as incidental to the construction, unless otherwise stated on bid form. A general dewatering permit is required when a discharge from pumping and dewatering, flushing and disinfection, or pressure testing could reach waters of the State. To obtain information on the general dewatering permit, contact DENR's Surface Water Quality Program, at 605-773-3351.

C. Ordinary Excavation: Ordinary excavation is all excavation not classified as rock excavation.

D. Rock Excavation: Solid rock excavation shall include solid rock formations requiring systematic drilling and blasting with explosives and any boulders or broken rock larger than 1 cubic yard in volume. Hard pan or cemented gravel, even though it would be advantageous to use explosives in its removal, will not be classified as solid rock excavation.

Solid rock shall be excavated to a width equal to outside diameter of the pipe, plus 24 inches and to a grade line of not less than 6 inches below bottom of pipe. Bottom of trench shall be brought up to grade by backfilling with selected backfill material and compacted to the satisfaction of the Engineer. The Contractor shall notify the Engineer at least 24 hours prior to any blasting. All blasting shall be done in accordance with local regulations. Any damage to persons or property resulting from blasting operations shall be the sole responsibility of the Contractor and his surety.

E. Paving and Sidewalk Cuts: Where necessary to make open cuts or excavation in slabs, pavements or sidewalks the Contractor shall do the same at the unit price bid. The entire backfill shall be placed and tamped in layers not exceeding 6" in depth. Moist earth may be required and the backfill shall be compacted to a density equal to 95% of maximum dry density as determined by AASHTO T99 (standard proctor) in order that the paving surfaces, slabs, or sidewalks may be promptly reconstructed. After approved backfilling is completed, the Contractor shall replace or reconstruct the slab, paving or sidewalk with like materials and in a manner satisfactory to the Engineer. All edges along or around the cuts in asphalt or concrete slabs shall be saw cut just prior to replacement in order to provide a neat and clean joint.

Removal of paved surface beyond that marked or indicated for pay quantity will be considered Contractor's responsibility and not paid for separately.

F. Prevention of Damage to Existing Structures: All below ground and above ground existing structures whether or not they lie within the limits of the easement obtained by the owner, shall be protected from damage. Where such existing fences, buildings, or any other structure must be removed in order to properly carry out the construction or are damaged during construction, they shall be restored to their original condition to the satisfaction of the property owner involved at no additional cost to the owner. The Contractor shall notify the Engineer of any damage to underground structures and repairs or replacements shall be made before backfilling takes place.

If the Contractor encounters existing structures which will prevent the construction of the pipe line and such structures are not properly shown on the plans, he shall notify the Engineer before continuing with the construction in order that the Engineer may make such field revisions as necessary to avoid conflict with the existing structures. The cost of waiting or down time during such field revisions shall be borne by the Contractor without additional cost to the owner. If the Contractor shall fail to notify the Engineer when the existing structure is encountered and shall proceed with the construction despite the interference, he shall do so at his own risk. The Contractor shall notify all public and private agencies, which are affected by the construction operation at least 48 hours in advance. It shall be the Contractor's responsibility to locate and expose, if necessary, all the existing underground utilities, considered structures, in advance of the trenching operation. Permission to expose any substructure must be obtained from the affected agency before any work takes place. Should interruption of domestic water or other utility service take place during construction, it shall be the Contractor's responsibility to notify the proper authorities. Full cooperation will be given to enable the restoration of service as soon as possible and the Contractor shall bear all costs of the repair.

The Contractor shall make note of the list of the major public utilities serving the area in which the project is to take place. Surface and underground utilities excepting service connections, which may affect the construction, will be shown on the plans insofar as they are known. The Contractor shall thoroughly acquaint himself with the nature of the utilities and any structure or thing that may interfere with the construction. Underground utilities are shown for the Contractor's convenience only, and the owner assumes no responsibility for improper locations or for failure to show utility locations on the construction plans.

G. Shoring and Bracing of Excavation: The Contractor shall be fully responsible for the needs, sufficiently and adequacy of bracing excavation. If sheeting is used to support the excavated trench, the sheeting shall be removed by the Contractor. No such sheeting will be permitted to remain in the trench except, when in the opinion of the Engineer, field conditions, the type of sheeting, or methods of construction used by the Contractor are such to make the removal of the sheeting impracticable. In such cases the Engineer may permit portions of the sheeting to be cut off to such a depth as he may approve and permit lower portions thereof to remain in the trench.

H. Traffic and Public Protection: No work shall proceed until the Contractor has sufficient signs, barricades, fencing, etc. at the job site for the protection of the public. Refer to SDDOT Specifications Section 634 and 984 for specific Traffic Control Devices requirements.

All trenches left open overnight shall be completely fenced off and barricaded.

At street crossings, driveways, and sidewalks, the Contractor shall bridge the trenches in an approved manner so as to prevent serious inconvenience in vehicular and pedestrian traffic and to provide access to public and private property. The location of such bridges shall meet with the

approval of the Engineer and must be constructed and removed at the Contractor's expense.

Where pipelines are constructed in a local street or road parallel to the same, the street or road shall be kept open to traffic at all times by providing at least one open lane. No single traffic lane shall extend for more than 500 feet without provision being made for the passing of traffic. Traffic control on collector and arterial streets is to be coordinated with the City engineer.

Traffic control and safety barricading and fencing and temporary bridging, other than that specifically listed in the bid schedule is considered incidental to other bid items and will not be paid for separately.

I. Bedding: Bedding shall be defined as that material supporting and surrounding the pipeline and extending from the bottom of the trench excavation (or the top of special foundation material) to 6 inches above the top of the pipe and from trench wall to trench wall. Bedding material shall be placed and compacted in accordance with this section, plan requirements, and applicable parts of installation specifications for the type of pipeline being installed.

All pipe shall be bedded in material meeting the requirements shown below. Material shall be installed around the pipe in six inch layers to the limits shown in the plans, carefully placed to provide uniform bedding and lateral support for the pipe while maintaining true alignment and grade. Material shall be carefully and thoroughly hand compacted and tamped under, over, and around the pipe to provide uniform and continuous support and protection for the pipe. Bedding material shall be compacted to the same density specified for backfill in Paragraph J. below.

Bedding material shall be compacted in the trench bottom so that the pipe is installed on a firm, unyielding surface providing uniform and continuous support for the pipe barrel. Bell holes shall be excavated in the compacted bedding material and be of the minimum size required to construct satisfactory joints.

Bedding material shall not be dumped directly on the pipe from the top of the trench and shall be placed in such a way as to avoid movement of or damage to the pipe.

The most suitable on-site material that has consistent grading, with no particles larger than 1 inch diameter shall be used when select backfill is called for as bedding material.

Where bedding material is specified or shown on the plans as granular material it shall be Class I as defined in ASTM D2321 and specified below or Class II as defined in ASTM D2487 and specified below.

(1) Class I bedding material shall be Select Granular Backfill as specified in Section 850 of the South Dakota Department of Transportation Standard Specifications for Roads and Bridges, 1998 Edition. Contractor may submit samples of such other Class I material that he may desire to use to the Engineer for approval.

(2) Class II bedding material shall be Gravel Surfacing as specified in Section 882 of the above DOT Standard Specifications except that maximum size will be increased to 1". Contractor may submit samples of such other Class II material that he may desire to use to the Engineer for approval.

Granular material shall be Class II bedding material unless Class I bedding material is called for in the Plans. Locally available pit-run sand is acceptable as Class II bedding. The following placement of bedding and select backfill material shall be used unless otherwise noted:

Sanitary Sewer & Water Line granular material to 6" above pipe. Select backfill from 6" to 18" above pipe.

J. Backfilling: All native material or sand used for backfill shall be free from frozen materials, rocks, foreign material that may decompose, and other materials that may affect the stability of the backfill. Length of open trench shall not exceed 200 feet before backfilling shall commence.

All trenches and structure excavations shall be backfilled as soon as the jointing compound, mortar, concrete, etc. has attained a suitable degree of hardness, and this work shall be prosecuted expeditiously until completed.

The space between the pipe and the bottom and sides of the trench shall be packed and compacted as fast as placed up to the level of the top of the pipe. Bedding material as specified shall be used. Material shall be deposited carefully in the trench to avoid injuring the pipe and shall be placed in layers not more than six (6") inches in thickness, and each layer shall be solidly and carefully tamped with a tamping bar in conjunction with other compactive tools and equipment. Select backfill shall be compacted with hand operated mechanical compactor. The filling shall be carried up evenly on both sides. The above method shall be used to cover the pipe to at least two (2') above its top. Stones larger than three inches in diameter shall not be placed within two feet of the top of the pipe.

All tamping above an elevation of two (2') feet above the crown of the pipe shall be placed and tamped in layers not more than 8 inches in thickness unless specialized compaction equipment has demonstrated effective in achievement of compaction requirements with larger lifts and shall be done by hand or with pneumatically operated tampers or other approved tampers. Tamping with the side or bottom of an excavating bucket shall not be acceptable.

Compaction will be in accordance with South Dakota Department of Transportation Standard Specifications Section 120 - Roadway and Drainage Excavation and Embankment Construction or these specifications, whichever is more stringent.

All backfill shall be compacted to 95% of maximum dry density at a moisture content within 2% of optimum as determined by AASHTO T99. Backfill material shall be pre-moistened dried or mixed if outside of that specified at Contractor's expense. Flushing will never be allowed. When the trench is filled the Contractor shall remove all surplus material leaving the work area clean and in good order to the satisfaction of the Engineer.

K. Guarantee of Backfilling: The Contractor shall maintain all excavations for a period of two (2) years from date of acceptance of the work, and any depression caused by settling of the earth in the ditch or other excavation in the opinion of the Engineer becomes dangerous, due to the caving or settling of the earth in or above such excavation, the City shall cause such filling to be made and collect the cost thereof from the Contractor or his bond.

Should the City refill any excavation, such action will in no way relieve the Contractor of his responsibility on that part of the work, nor in any way relieve the Contractor of any liability

caused by subsequent settlement or cavity of that portion of the excavation. Infiltration of earth due to leaky joints or clogging of earth due to rough joints shall be guaranteed against.

L. Clean-up: The Contractor shall clean up and dispose of all excess material, trash, wood, forms, and other debris at the local landfill unless otherwise approved. Landfill fees are Contractor's responsibility.

The Contractor shall clean up all parts of the work area which may have been used by him and replace same to satisfactory condition to the Engineer. He shall not leave equipment or materials stored in or on any part of the street or highway where work is not in progress or has been completed, and shall keep proper warning signals where necessary, in place at all times.

M. Sewer and Water Installation Contractors: All sewer and water installation must be done by a sewer and water installation Contractor licensed by both the State of South Dakota and the City of Yankton. This requirement shall not be required of persons licensed as a plumbing contractor in the City of Yankton.

N. Backfilling and Grading in Unimproved Areas: Backfill in areas not containing surface improvements shall be the same as that specified above – 95% of AASHTO T99 +/- 2% of optimum moisture.

O. Topsoil: Place minimum of 6 inches of topsoil over areas to be sodded or seeded. Topsoil may be salvaged prior to trenching; imported or borrowed but must meet or exceed quality of existing undisturbed material.

CITY OF YANKTON
STANDARD SPECIFICATIONS
SECTION 210

**SEWER CONSTRUCTION FOR SANITARY SEWER MAINS,
SERVICE LINES AND APPURTENANCES**

210.1 GENERAL

The work covered by this section includes furnishing, inspecting, storing, handling, laying, and testing of sewer pipe and appurtenances required for the installation of sewer mains and service lines. The Contractor shall furnish all materials, equipment, plant, labor, supervision, and incidentals necessary to complete this work.

The pipe used in the construction of the sewer mains and service lines shall be tested at the factory for compliance with applicable standard specifications specified herein. The manufacturer shall furnish a certificate and test report for each carload, truckload or segment thereof showing the conformity of the pipe with the specifications. Manufacturer shall also certify that each and every piece of pipe and fitting has been inspected for defect and that defective pieces have been rejected. Contractor shall furnish above certificates and test reports to the Engineer prior to installing pipe.

If, during the course of the work, it appears to the Engineer that the above measure has not provided adequate quality control, he may require the Contractor to provide, at the Contractor's sole expense, substantiation of the pipe's compliance with the specifications from an independent testing laboratory acceptable to the Engineer.

When PVC pipe or ductile iron pipe are used, each piece shall bear complete markings and identification as required in ASTM D3034 and ANSI A21.51, respectively.

The Contractor shall inspect all pipe and fittings upon delivery and reject any that do not meet the specifications. He shall make a final inspection of each piece of pipe and each fitting immediately before it is installed. Rejected material shall be removed from the job site promptly.

210.2 PVC SEWER MAIN AND FITTINGS

PVC pipe and fittings in sizes 4" to 15", inclusive, shall meet the requirements of ASTM D3034 and shall have a Standard Dimension Ratio (SDR) less than or equal to 35.

PVC pipe and fittings in sizes 18" to 27", inclusive, shall meet the requirements of ASTM F679 and shall have an SDR less than or equal to 35.

Pipe shall be joined with an integral bell, bell-and-spigot rubber gasketed joint conforming to the requirements of ASTM D3212 with gaskets meeting requirements of ASTM F477.

PVC material for pipe shall be polyvinyl chloride having a cell classification of 12364-B as defined in ASTM D1748. Pipe manufacturer may use clean reworked PVC material within limit imposed by the above specifications.

Fitting joints shall be sealed with a rubber gasket. PVC material for fittings shall have a cell classification of 12454-B, or 12454-C or 13343-C as defined in ASTM D1784.

Special fittings and adapters, not subject to one of the above standard specifications, shall be subject to the approval of the Engineer.

210.3 DUCTILE IRON PIPE SEWER MAIN

Ductile iron pipe (DIP) shall comply with provisions of ANSI A21.51. Pipe shall be of the size shown on the Plans and specified in the Bid. Pipe shall be Class 50 unless shown otherwise in the Plans and/or the Bid.

Pipe shall be furnished with push-on joints unless mechanical joints are specified on the Plans. Pipe joints shall comply with requirements of ANSI A21.11.

Pipe shall be furnished with an asphaltic outside coating approximately 1 mil thick. Pipe shall be cement mortar lined in accordance with the provisions of ANSI A21.4. Lining shall be standard thickness.

Due to prevailing soil conditions, all ductile iron pipe where the joint is assembled with nuts and bolts shall be wrapped with a minimum 8 mil polyethylene encasement sufficient to prevent soil contact with the joint in accordance with AWWA C105.

210.4 EXCAVATION, BEDDING AND BACKFILL

Excavation, bedding and backfill for installation of sewer main shall be as specified in Section 203 and in this Section of the Technical Specifications.

210.5 INSTALLATION OF SEWER MAIN

PVC pipe shall be installed in accordance with Uni-Bell Plastic Pipe Association recommended Standard UNI-B-5 and the manufacturer's written recommendations except as these specifications and recommendations are changed, modified, added to or deleted from herein.

Ductile iron pipe shall be installed in accordance with AWWA C600, the manufacturer's written recommendations and as specified herein.

Unless special permission is given, no pipe shall be laid except in the presence of the Engineer or his representative.

Pipe shall be laid up grade from manhole to manhole with the bells uphill. It shall be laid on a stable foundation with bearing under the full length of the barrel, with no bearing on bells. The pipe shall be laid accurately to line and grade with the spigot centered in the bell.

The Owner will, at no expense to the Contractor, provide sufficient stakes for determining the horizontal and vertical locations of each manhole; and for establishing the line and grade for laser equipment. The Contractor may, at his option, maintain the sewer grade either by laser equipment or batter boards. If the Contractor destroys the stakes, all costs for resetting them will be at the Contractor's expense.

If the batter board method is used, the Contractor shall, at his own expense, provide stakes along the line at intervals not exceeding 50 feet. At least three batter boards shall be maintained at all times. Whichever method is used, the Contractor shall use targets or such other practical means as are available to check the accuracy of stakes and the correctness of the pipe lines and grade.

Trenches and pipes shall be kept free of accumulated water until the sewer has been bedded and backfilled. When the trench is left for the night or pipe laying is stopped because of rain or other reasons, the ends of the pipe shall be plugged to prevent dirt or other substances from entering the sewer. The interior of the pipe shall be kept clear of all dirt and superfluous substances of all kinds.

Where water lines cross under gravity sewer lines, the sewer shall be fully encased in concrete for a distance of ten feet (10') each side of the water main. The Contractor shall encase piping at other locations as shown on the plans or as may be directed by the Engineer.

210.6 SEWER MAIN TESTING

Each completed section of sewer main between manholes shall be inspected visually to verify accuracy of alignment and grade and freedom from debris or obstruction. The full diameter of the pipe shall be visible from manhole to manhole with mirrors and lights.

Each section of PVC sewer mains between manholes shall be subjected to a deflection test by hand pulling a rigid ball or mandrel equal in size to 95% of the base inside diameter of the sewer being inspected. Tests shall be performed by the Contractor in the presence of and to the satisfaction of the Engineer. Tests shall be performed without mechanical pulling devices after the backfill has been in place for at least 30 days. No pipe shall exceed a deflection of 5%. If deflection exceeds 5%, the Contractor shall locate and correct the unsatisfactory portion of the line at his own expense, and re-test the section in question until satisfactory results are obtained.

All new sewer main and all sewer service line as directed by the Engineer shall be subjected to a leakage test. Contractor shall furnish all labor, materials and equipment necessary to perform the tests. Tests shall be performed in the presence of and to the satisfaction of the Engineer. Sections of sewer which fail to pass the leakage test shall have defects located and repaired or replaced and be retested until within the specified allowance. Test section shall be from manhole to manhole.

The leakage test shall be as per ASTM C-924 for concrete pipe and ASTM F-1417 for plastic pipe.

The Contractor shall conduct leakage tests of manholes. Leakage from the manhole shall not exceed 2.0 gallons per day per vertical foot of manhole when the water level is maintained at four feet below the top of rim elevation. Sewer lines shall be adequately plugged against thrust due to water pressure.

The Contractor shall be responsible for the repair of any and all damage to surface improvements, including pavement and curb and gutter, resulting from the repair of unsatisfactory sections of sewer main or service line identified by the test specified in this section.

210.7 WYES AND TEES

Wyes and tees shall be installed as shown on the Plans or as specified herein. Wyes and tees and other fittings used therewith shall be of one piece, of the same material as the main on which it is installed and joints shall meet the requirements of the main line joints.

Wyes or tees for service line connections shall be installed as indicated on the Plans or as directed by the Engineer. Wye and tee locations, if shown on the Plans, are based on the information available during design of the system. It may be necessary to change the location of wyes and tees due to underground obstacles, unforeseen conditions, or actual location of service lines as determined by the Contractor during construction. Contractor shall make necessary changes to meet actual conditions for the unit price bid for wyes and tees with no extra cost to the Owner.

The Contractor shall keep an accurate record of the location of all wyes and tees including measurement to two above ground structures or manholes. This record shall be given to the Engineer upon completion of the project.

210.8 MANHOLES

Manholes shall be four (4) feet in diameter and constructed of precast concrete rings conforming to requirements to ASTM C478 except as modified or changed herein. Precast top sections shall be eccentric/concentric cones where total manhole depth is six feet and more. For manholes of less than six feet deep, top section shall be flat, Cretex Type II or equal.

Manhole steps shall not be installed. Bases shall be precast of the standard design manufactured by the supplier of the manhole rings. Cast in place base may be used around existing sanitary sewer pipes as approved by engineer. Grade and adjusting rings, where used, shall conform to requirements of ASTM C478. Total height of adjusting rings may not exceed 12 inches.

Manhole frames and covers shall be ASTM A48, Class 35 grey iron, castings similar and equal to Neenah R-1733 or Deeter 1260 with self sealing Type A solid ribbed lid weighing a minimum of 195 pounds, and two lifting holes. All casting shall have an O-ring seal fitted securely into a machined, dovetail groove in the cover, similar and equal to Neenah Self-Sealing Lid and shall have cast lettering label, "Sanitary Sewer". Contractor shall furnish to the Owner a cover lifting device designed to remove lids actually supplied.

Changes in pipe size and grades through manholes shall be made gradually and evenly. Changes in direction shall have a smooth curve of as large a radius as the manhole will permit. The invert shall slope evenly from the manhole inlet to the outlet except where the inlet sewer is more than two feet above the outlet sewer, in which case the manhole shall be constructed with a drop connection. Invert channels shall be smooth, accurately shaped and in accordance with the Plan elevations or as modified by the Engineer. Invert channels shall be formed by hand troweling cement grout directly on the concrete base.

Connections of the sewer pipe to the manholes shall be made using a short section of pipe in such a manner so as to provide a flexible joint within 18" of the manhole. Where shown on the Plans, plugged stubs shall be installed in manholes. Channels shall be constructed in the manhole for the stubs the same as for other sewers entering the manhole. Where unstable subgrade is encountered at the manhole base, it shall be stabilized as specified in Section 203.2.

All manholes shall be watertight and subject to a leakage test as specified elsewhere. Rubber or neoprene waterstops or a rubber boot device shall be used on plastic sewer pipe to develop a watertight seal where connecting to the manhole. Contractor may elect to use manhole adapters approved by the Engineer in lieu of the waterstops. All lifting holes shall be grouted and coated outside with a bituminous material. Joints of precast concrete manhole rings shall be sealed with Ram-nek or equal or an O-ring gasket seal may be used. Additional measures shall be taken as necessary by the Contractor to prevent leakage.

210.9 SERVICE LINES

Sewer service line pipe and fittings shall be PVC, meeting the same specifications shown in Section 210.2 for sewer main.

Sewer service line pipe installation shall be in accordance with specifications shown in Section 210.5 for sewer main except as changed or modified in this Section.

Service lines will not be staked for grade by the Owner. Grade control shall be by builder's level or carpenter's level. Minimum grade shall be 1.05% for 4" and 0.60% for 6" service lines.

Each service line shall be terminated with a plug and as shown in the Plans. A steel fence post of a minimum 3 feet in length shall be buried in a vertical position at the end of each service line. The top of the fence post shall be set 3" to 6" below finished grade. All costs of furnishing and installing the plug and the fence post shall be absorbed in the unit prices bid for 4" and 6" sanitary sewer service line.

Sewer service lines shall be installed as stated above, however, sewer service lines shall be laid in separate trenches from water service lines at least ten feet (10') apart horizontally. Sewer service lines may be installed in the same trench with the water service line only when conditions prevent separate trenches and when approved by the Engineer.

**CITY OF YANKTON, SD
STANDARD SPECIFICATIONS**

**SECTION 501
WATER DISTRIBUTION SYSTEM**

501.1 DESCRIPTION:

The work covered by this section consists of furnishing and installation of the various sizes, types and classes of pressure piping, fittings, and other appurtenances required to complete the work in accordance with the plans and specifications. All construction and materials shall conform to the requirements of the South Dakota Department of Environment and Natural Resources and associated U.S. Environmental Protection Agency (EPA) Standards. All construction procedures and watermain installation shall be in accordance with manufacture's recommendation and requirements and with City, State, Federal and other regulations, codes and ordinances pertaining to such work.

WATER SUPPLY MAINS

501.2 MATERIALS:

All materials shall conform to the current standard specifications referenced herein except as noted otherwise.

A. General Appurtenances:

- (1) Specials and Fittings:** for pipe shall be Class D conforming to AWWA C 153/ANSI A 21.53 Ductile iron Compact fittings, 3 inch through 24 inch and 54 inch through 64 inch Specials and fittings for use with mechanical joint pipe shall conform to ANSI Specification A21.11.
- (2) Bolts, Nuts and Washers:** for bolted joints shall conform to the recommendations of the pipe manufacturer and conform to AWWA C111 or ANSI A21.11.
- (3) Cement Mortar:** lining of standard thickness shall coat the inside of all cast iron pipe, specials and fittings conforming to ANSI Specification A21.4 and AWWA C 104/A 21.4. The outside of cast iron pipe shall be coated with a bituminous coating (AWWA C 203).
- (4) Jointing Materials:** Packing for joints of standard type bell and spigot pipe and fittings shall be wedge section rubber rings packing. Unless otherwise required all jointing material shall conform to AWWA C111/ANSI A21.11.

(a) **Mechanical Joint Accessories:** Including bolts necessary gasket materials for each bell of mechanical joint pipe and fittings shall be furnished by the pipe manufacturer, conforming to ANSI Specification A21.11. Glands shall be coated with bituminous material.

(b) **Slip Type Joints:** If slip type joint "Tyton" equivalent is used the manufacturer's instructions and materials for the specific joint shall be used.

(c) **Push-On-Joints:** shall be furnished with standard joint materials including rubber ring gaskets and gasket lubricant in sufficient quantities for the specified total laying length of pipe.

Fittings and valves shall be mechanical joint unless otherwise noted. Fittings shall be manufactured by one of the following manufactures: American, U.S. Pipe, Griffen Pipe, Union, Tyler and Clow.

B. Ductile Iron Pipe: Ductile iron pipe shall be cement mortar lined conforming to the ductile iron pipe standards ANSI A21.51 (AWWA C151) and AWWA C104 with joints the same as that provided for cast iron pipe. Pipe thickness shall be Class 50 unless otherwise noted on the plans.

C. PVC Pipe: PVC pipe shall be Class 150 or heavier and shall meet the requirements of AWWA C900 Poly (Vinyl Chloride) (PVC) Pressure Pipe and Fabricated Fittings, 4 in. Through 12 in., for Water Distribution. Class 150 pipe shall conform to the requirements of DR 18 and Class 200 shall meet the requirements of DR 14.

All pipe shall be suitable for use as a pressure conduit. Provisions must be made for expansion and contraction at each joint with an elastomeric ring. The bell shall consist of an integral wall section with an elastomeric ring, which meets the requirements of ASTM F477, Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe. The wall thickness in the bell section shall conform to the requirements of ASTM D3139. Sizes and dimensions shall be as shown in the standards cited in this specification. When used for potable water systems, pipe shall meet ANSI/NSF Standard No. 61. The pipe shall be manufactured to cast iron or ductile iron outside dimensions in accordance with AWWA C900.

The minimum wall thickness shall be:

Size (in.)	DR	4	6	8
T (in.) Class 150	18	0.267	0.383	0.503
T (in.) Class 200	14	0.343	0.493	0.646
Size (in.)	DR	10	12	
T (in.) Class 150	18	0.617	0.73	
T (in.) Class 200	14	0.793	0.94	

Standard laying lengths shall be 20 feet (plus or minus 1") for all sizes. At least 85% of the total footage of pipe of any class and size shall be furnished in standard lengths and the remaining 15% in random lengths. Each length of pipe shall be tested to four times the class pressure of the pipe for a minimum of 5 seconds. The integral bell shall be tested with the pipe.

Pipe shall be a minimum Class 150 unless otherwise called for on the plans and specifications.

D. Valves: All valves shall be designed for a minimum water working pressure of not less than 150 pounds per square inch. The valves shall conform to Federal Specifications WW-V-0054a, WW-V-58, and AWWA Standard C-509. Valves shall be all bell with a two-inch (2") operating nut, unless otherwise noted. Valves shall be iron body, fully bronze mounted, stationary stem, resilient wedge and shall be opened by turning counter-clockwise. The operating nut shall have an arrow, cast in the metal indicating the direction of the opening. Each valve shall have the maker's monogram or initials, pressure rating, and year of manufacturer cast on the body. Valves shall be provided with "O" ring seal plates. Valves shall be similar and equal to American Series 2500, U.S. Pipe Metroseal or American AVK Co. Series 45.

The seal plate shall be fitted with at least two (2) "O" rings. The "O" rings shall be precision rubber product's quality number 122-70 or equivalent. All cast iron surfaces of valves shall be thoroughly cleaned and coated with asphaltic varnish, applied hot. All bronze shall be left bright.

Prior to shipment from the factory, each valve shall be tested by hydraulic pressure equal to twice the specified water working pressure. A written certification shall be furnished by the manufacturer that each valve has been satisfactorily tested and is watertight.

E. Valve Boxes: All valves shall be equipped with heavy duty valve boxes consisting of a cast iron enter section, and a top section with cover which shall be marked "Water". The top section shall be adjustable for elevation and have a maximum extended length of 72 inches. Must be Tylor pipe Model 666-S, or approved equal. The valve boxes shall be equipped with a rubber boot/sleeve that covers and firmly holds the bottom of the valve box over the valve nut (Valve Box Adapter II).

F. Fire Hydrants: All fire hydrants shall be of a standard make and shall comply with the latest standard specification adopted by the American Water Works Association (C502) and meet with the Standard requirements of the National Board of Fire Underwriters and will have a highway (breakaway) type flange. All hydrants must have a bronze to bronze seat.

Fire hydrants and extensions shall be yellow. Color shall be selected by Owner from color chips submitted with shop drawings.

Unless otherwise specified or shown on the drawings, all hydrants shall have two (2) 2-1/2" nozzles and one (1) 4-1/2" nozzle with National Standard hose coupling threads. Nozzles shall be bronze or other non-corrosive metal. Nozzle caps, chained to the barrel shall be provided.

The hydrant valve shall close with the pressure of the water in the mains and unless otherwise specified all valve openings shall be 5-1/4" minimum sized. Hydrants shall have mechanical joint connections for connecting to 6" size branch line from the water main unless otherwise indicated on the drawings. There shall be no obstruction whatsoever in the hydrant, which interferes with a free flow of water and creates undue friction loss. All hydrants shall have a positive drain mechanism, which will permit the water to escape readily from the hydrant barrel when the hydrant valve is closed. This drain mechanism must be closed when the hydrant is partially or fully open.

Fire hydrants are to be stamped by manufacturer with raised lettering indicating the date that matches the year of the project.

The hydrant valve and valve stem shall be removable from the upper barrel or bonnet without the necessity of digging up the hydrant.

All hydrants shall be of the proper length to provide the amount of cover over the branch line connection as specified for cover over the watermains to which the hydrants are attached.

The opening direction of the hydrant shall be counter-clockwise and operating, but shall be the same as those on the hydrants elsewhere in the city.

G. Make of Hydrants: All hydrants furnished by the Contractor shall be American Darling B-62B or B84B, Waterous Pacer WB67, Mueller Super Centurion 200, Clow Medallion 2546-5B or American AVK Co. Model 2700, or approved equal. All hydrants shall be furnished to the appropriate bury depth for project conditions. A minimum six and one-half foot bury hydrant will be used to account for standard 6-foot (in the street) ground cover/ 6 inch fire hydrant lead and 6 inch ground rise for standard behind the curb ground surface rise.

H. Concrete: South Dakota Department of Transportation Standard Specifications for Class M-5.

WATER SERVICE LINES

501.3 MATERIALS:

All materials and fittings shall conform to the standard specifications referenced herein except as noted otherwise (AWWA C 800).

A. Copper Piping: All water service lines shall comply with ASTM-D-88 Type "K", seamless soft annealed.

B. Corporation Stops: Corporation stops shall be made from brass as furnished by either Ford (F600), Mueller (H-15000), McDonald (4700) or an approved equal. The corporations shall be provided with AWWA taper threads on the inlet and a flared or compression copper connection on the outlet.

C. Service Saddles: Service saddles will only be installed when PVC watermain is specified or used. Service saddles furnished shall be "Ford" S90 brass saddles for C900 PVC pipe or an approved equal. The service saddle body and strap shall be cast from 85-5-5-5 brass per ASTM B-62 and AWWA C800. The body and strap shall be permanently hinged together with a stainless steel or silicon bronze pin. The clamping bolt shall be a slotted hex head made from 18-8 stainless steel. The saddle shall be provided with a "Buna-N" rubber "O" ring gasket. The saddle body shall be provided with AWWA tapered threads to allow the installation of either a "Ford" F600 series, "Mueller" H-15000 or McDonald 3805 and 3806 corporation stops.

D. Curb Stops: The curb stops shall be manufactured from heavy duty brass and shall be of the ball valve type as manufactured by Ford, Mueller, McDonald or an approved equal. Curb stops shall be provided with tee head checks and have a flared or compression copper fitting on one end and a compression copper fitting on the other end.

E. Curb Stop Boxes: Curb stop service boxes shall be dip coated with asphaltum paint and have the lower section made of cast iron with a 1-1/4" steel pipe extension service box upper section H 1030 Mueller Co. with cover #5830 Hays, 5614 McDonald with 5614L cover or equal. All curb stop service boxes shall be able to telescope a minimum of 12".

F. Fittings and Connections: (AWWA C 800) All fittings or connections used shall be constructed of heavy-duty brass and shall be of the compression type for copper water piping.

501.4 CONSTRUCTION REQUIREMENTS:

A. General: All pipe and fittings shall be laid in trenches to the depth or grade shown on the plans, but in all cases with a minimum cover of 6 feet over the top of the pipe at the locations shown on the drawings and/or as directed by the Engineer. All pipe and fittings shall be installed as specified in this Section. Unless otherwise specifically called for on the plans or the specifications, all pipe and appurtenances thereto shall be new material meeting the requirements of these specifications (AWWA C 600 and 602 or AWWA C605 as is applicable).

The Contractor will be held responsible to insure the protection of all existing improvements such as fire hydrants, street lights, traffic lights, parking meters, traffic signs, catch basins, manholes, valves, survey monuments, overhead utility lines and poles, and any existing underground sprinkler or utility lines which may be damaged during the execution of the contract. It will be the Contractor's responsibility to replace all public improvements so damaged at his own expense. Contractor is responsible to call for locates on all underground utilities.

The Contractor shall take proper precautions for the protection of and replacement or restoration of driveway culverts, street intersection culverts or aprons, storm drains or inlets, fences, irrigation ditches crossings and diversion boxes, mail boxes, shrubbery, sod, trees, driveway approaches and all other public or private installations that may be encountered during the performance of the work. He shall provide each property with access at all times during construction. Existing driveways shall be cut, filled and graded as required or as directed by the City representative to provide permanent access. Existing driveways shall be resurfaced with the then existing type of surfacing, whenever surfaces are destroyed. Costs are considered incidental

and will not be paid for separately unless listed separately on bid schedule.

Excavation, trenching and backfilling will be in accordance with City of Yankton Standard Specifications pertaining to such work - Section 203.

B. Handling of Pipe: Unloading of pipe from railroad cars, truck or trailers and the placing of the pipe in their final locations of the work shall be carefully performed in an approved manner in order to avoid damage to the pipe or its coating.

C. Excavation, Trenching and Backfilling: Excavation, trenching and backfilling shall conform to standards and regulations governing such work and the requirements set forth in the excavation, trenching and backfilling section of the Technical Specifications. Backfill is to be compacted to 95% of maximum density ASTM D 698 (standard proctor density) at +/- 2% of optimum moisture content.

D. Tapping: Tapping of watermain for water service lines shall be accomplished in one of two methods as specified below:

Where the plans specify that the City will install the water service line taps the City will furnish labor, equipment and corporation stops, up to a maximum of a 1" corporation. Notify the City Water Department a minimum of 24 hours prior to the time that taps are desired. The tapping pit and trench excavation are the Contractor's responsibility and subject to the approval of water department personnel.

When service saddles are specified on the plans, the contractor shall be responsible for furnishing all labor, materials and equipment for the complete installation of the service saddle and corporation stop. Payment for service saddles and corporation stops shall be as noted elsewhere in these specifications.

In installations that require a tap larger than a 1" tapped tee, meeting the same requirements of Materials Section shall be installed with the specified corporation stop. The cost of the tapped tee and corporation stop shall be borne by the contractor unless it is included in the bid schedule.

Multiple small diameter taps in the conjunction with a yoke to join the taps will not be permitted. The Contractor shall be responsible for securing and paying for all water connection permits and fees. It is the Contractor's responsibility to contact the Department of Public Works for current fee schedules. The Contractor shall not receive additional payment for permit fees.

E. Installing Fire Hydrants: Fire hydrants shall be set at the locations indicated on the drawings or as directed by the Engineer. Setting details shall be as indicated on the detail drawings.

In the area surrounding the drain mechanism for the hydrant, 3 cubic feet of crushed rock or equivalent porous material shall be placed to provide adequate drainage from the barrel of the hydrant.

Each hydrant shall be set to the same depth of cover as specified for the water mains and no hydrant shall be set more than 3" above or below the ground line mark cast thereof, then the hydrant shall be set so that the 2-1/2" nozzles will be at least 18 inches from the ground and not more than 24 inches above the finished ground line.

F. Installation of Water Pipe and Appurtenances: Piping for water mains may be of PVC or ductile iron as called for. Piping for water service lines shall be type "K" copper as specified elsewhere in these specifications. All pipe and accessories shall be new. Pipe and accessories shall be handled in such a manner as to insure delivery to the trench in sound, undamaged condition. Particular care shall be taken not to injure the pipe coatings. No other pipe or material of any kind shall be placed inside a pipe or fitting. The interior of the pipe shall be thoroughly cleaned of foreign matter before being lowered into the trench and shall be kept clean during laying operations by plugging or other approved methods. The full length of each section of pipe shall rest solidly upon the pipe bed with the recesses to accommodate bells and joints, shaped by hand. Pipe shall not be laid in water or when trench or weather conditions are unsuitable for work. Water shall be kept from the trench until the joints have been completed in a satisfactory manner.

When work is not in progress, open ends of pipe and fittings shall be securely closed to prevent the entrance of trench water or other extraneous substances. Any section of pipe found to be defective before or after laying shall be replaced with sound pipe without additional expense to the City.

Whenever possible, sewers should be laid at least 10 feet, horizontally, from any existing or proposed water main. Should local conditions prevent a lateral separation of 10 feet, a sewer may be laid closer than 10 feet to a water main if:

- 1) It is laid in a separate trench; or
- 2) It is laid in the same trench with the water main located at one side on a bench of undisturbed earth;
- 3) In either case, the elevation of the crown of the sewer is at least 18 inches below the invert of the water main.

Where water lines cross under or where the bottom of the water line is within 18" of the top of a gravity sewer main, storm sewer or a sewer service line, the water line shall be fully encased for a distance of ten feet (10') each side of the sewer main, storm sewer or sewer service line. The Contractor shall encase piping at other locations as shown on the plans or as may be directed by the Engineer.

Water service lines shall be installed as stated above, however, water service lines shall be laid in separate trenches from sewer service lines at least ten feet (10') apart horizontally. Water service lines may be installed in the same trench with the sewer service line only when conditions prevent separate trenches and when approved by the Engineer

All water service line connections at the watermain shall be no closer than 18" apart and no closer than 24" to a bell or mechanical joint. The final location of the curb stop shall be as determined by the Engineer.

Adjust valve boxes, curb boxes and other appurtenances to the proposed final surface grades.

(1) Highway and Railroad Crossings: The highway and railroad crossings shall be constructed by boring or jacking an encasement pipe without interference of traffic. The encasement pipe for use for crossing under the highway and railroad shall be of the size and thickness indicated on the plans and permits. Highway and railroad crossings shall be constructed in accordance with AWWA C-600 and meets the conditions of the permitting agency.

Operations and details of construction shall comply fully with the rules and regulations of the railroad, State or County agency issuing the permit. Contractor shall notify permit issuing agency and the City 48 hours prior to the commencement of boring and jacking operations.

(2) Blocking and Joint Restraint: All hydrants, bends, tees, plugs and other appurtenances in the pipeline shall be secured against movement by suitable thrust restraint. Blocking shall consist of poured concrete and shall be placed in accordance with the following City of Yankton Standard Plates:

1. 34-1 - Standard Thrust Rod Details.
2. 34-2 - Blocking for Convex Vertical Bend - buried.
3. 34-3 - Standard Thrust Block Details.
4. 34-4 - Typical Ditch Section (used for utility conflicts also).

Poured concrete shall not be placed over the entire fitting. The contact surface shall be limited to areas as shown on standard plates.

Dry (precast) concrete blocks can be used to substitute poured concrete on dead end plugs and tees. Soil bearing surface must be equal to or exceed that shown for poured blocks. Poured concrete may be required by Engineer if in his judgment field conditions are unsuitable for precast blocks.

Rodding in conjunction with uni-flange/star clamp restrainers may be used on 45-degree vertical bends. Fire hydrants are to be rodded (use of uni-flange/star clamps acceptable).

(3) Future Connections: Pipe ends left for future connections shall be valved, plugged or capped.

(4) Cutting Pipe: Cutting of pipe shall be done in a neat and workmanlike manner without damage to the pipe. Cutting shall be done by means of an approved type of mechanical cutter. Wheel cutters shall be used when practicable.

(5) Cut-In Connections: All cut-in connections shall be made by using a standard tee and sleeve. Connections under pressure will be permitted by use of standard tapping valve and

sleeve. No cut-in connections will be allowed by using cut-in tees.

G. Installing Valve Boxes: Valve boxes shall be centered on the valves and shall rest on compacted backfill. The top of the entire assembly shall be plumb. Earth fill shall be carefully tamped around each valve box and adjusted to proposed finish grade.

H. Ductile Iron Pipe: All installations of PVC, cast iron, or ductile iron pipe shall be in accordance with AWWA Standard C-600 or AWWA Standard C-605 as is appropriate. Before installation of pipe, the pipe shall be inspected for defects and cracks. Defective, damaged or unsound pipe will be rejected. Deflecting from a straight line or grade, as required by vertical curves, horizontal curves or offsets, shall not exceed $6/D$ inches per linear feet of pipe, where D represents the nominal diameter of the pipe expressed in inches, between the center lines extended of any two connecting pipes. If the alignment requires deflections in excess of these limitations, special bends or a sufficient number of shorter lengths of pipe shall be furnished to provide angular deflections within the limit set forth at the Contractor's expense. Tracer wire shall be installed with all pipe materials as noted in the plan and specifications.

A rubber gasket shall be inserted in bell before pushing into place. The spigot shall be centered in the bell and the pipe pushed into position and brought into required alignment. Except where necessary in making connections with other lines, or as authorized by the Engineer, pipe shall be laid with the bells facing in the direction of laying.

(1) Joints: Bell and spigot points - before jointing bell and spigot pipe, all lumps, blisters, and excess coating material shall be removed from the bell and spigot ends of the pipes. All oil or grease shall be removed. The outside of the spigot and the inside of the bell shall be wire-brushed and wiped clean and dry.

(2) Slip Joints: If slip seal "Tyton" joint pipe or equivalent is used, the materials and work shall be in strict accordance with the manufacturer's recommendations and specifications for the specific joint used.

(3) Mechanical Joints: shall be installed in accordance with the recommendations of the joint manufacturer.

I. Cleanup: During the progress of the work and upon completion of the work the Contractor shall remove all surplus construction materials and debris resulting from the work, and all areas of the work shall be left in an orderly manner.

J. Disinfection: Each unit of completed supply line shall be disinfected with chlorine before acceptance for domestic operation.

Disinfection shall be accomplished as described below or by the system prescribed by the American Water Works Association Standard C-651. The amount of chlorine applied shall be such as to provide a dosage of not less than 50 parts per million. The chlorinating material shall be introduced into the water lines in an acceptable manner. If possible to do so, the lines shall be thoroughly flushed before introduction of the chlorinating materials. After a contact period of

not less than twenty-four (24) hours, the system shall be flushed with clean water until the residual chlorine content is not greater than 1.0 part per million. When flushing the line, the water used for disinfecting the water line must not reach a stream, river, or other waterway if chlorine is detected in the water.

After disinfection, the water lines must be flushed and the disinfected line must be sampled. Two consecutive samples of water from the end of the disinfected line must be collected at least 24 hours apart. These samples must be submitted to the State Health Laboratory in Pierre, or other laboratory acceptable to the department. The samples must be free of coliform bacteria and must meet the State sanitary bacteriological testing standards before the system is placed into service.

Samples will be taken by City personnel. Contractor shall furnish a service line on new pipe at which a sample can be collected. The initial sample bottles, sampling and laboratory costs will be provided by the water utility. Retests will be accomplished by the utility and the Contractor will be responsible for all costs of retests including cost of materials, sampling, and laboratory fees.

All valves in the lines being disinfected shall be opened and closed several times during the contact period.

Disinfection costs are considered incidental to pipe installation and are not paid for separately.

K. Pressure Tests for Mains: It is the intent of this specification that all joints in piping be watertight and that all joints which are found either by observation or any specified test to leak shall be made watertight by the Contractor. After the pipe is laid, the joints exposed for examination, and before service line connections are made the newly laid piping or any valved section of piping shall be subjected to a hydrostatic test in accordance with AWWA C600 and AWWA C605. 100 PSI is the minimum test pressure for all mains.

The Contractor shall furnish the pump, pipe connections, gauges, and measuring equipment and shall perform the testing under the direct supervision of the Engineer. Where permanent air vents are not provided, the Contractor shall provide and install corporation cocks at the high points as needed for release of air as the line is filled with water.

Should any test of combined sections of pipeline disclose leakage greater per mile than specified, or should individual sections show leakage greater than the specified limit, the Contractor shall locate and repair the defective joints until the leakage is within the specified limits.

All pipe, fittings, valves, pipe joints, and other materials which are found to be defective when the line is tested shall be removed from the line immediately and replaced with new and acceptable material by and at the expense of the contractor.

Pressure testing Is considered incidental to pipe installation and is not paid for separately.

L. Inspection: When the pipe and fittings are all installed and before the hydrostatic tests

are applied to the pipe the Engineer must be notified that the line is ready for inspection and testing. No water shall be allowed in the line, no testing shall take place unless the Engineer or his authorized representative is on the job.

M. Tracer Wire System

The tracer wire system shall be installed with cast iron, ductile iron and PVC water mains to the satisfaction of the Engineer.

Tracer wire shall be No. 12 solid single strand type TW or THHN, or approved equal.

The conductor shall be solid or stranded copper per ASTM B-1, B-3, or B-8. The ground rod shall be a 3/8-inch diameter, 60-inch long steel rod uniformly coated with metallicity bonded electrolytic copper. Blackburn Catalog No. 3755, or equal. The ground rod at the fire hydrant shall be of the same material except that the ground rod shall be 30 inches long.

Ground rod clamps shall be high strength, corrosion resistant copper alloy. Blackburn Catalog No. G3, or equal.

Splice kits shall be Scotchlok DBY Y Connectors or equal.

The cost of the tracer wire system is considered to be a part of the cost of the water main installation.

N. Tracer Wire Installation

Tracer wire shall be installed with PVC, cast iron and ductile iron water mains. The wire shall be installed along the lower quadrant of the pipe, but the pipe shall not be laid directly on the wire. Ground rods shall be installed adjacent to connections to existing piping and in the locations specified on the plans. The tracer wire shall be brought to each fire hydrant and connected to a 30" ground rod that extends up to the bolted flange just above the ground surface or a minimum distance of 3" above the ground surface. The ground rod shall be taped to the fire hydrant barrel in at least four locations below the ground surface. The tracer wire shall be spliced only if approved by the Engineer and all underground splices shall be inspected by the Engineer prior to backfilling. The tracer wire system is considered to be a part of the price bid for water mains.

The Contractor shall be responsible for testing the tracer wire system for conductivity. Testing for conductivity shall be completed prior to finish surfacing activities. If the tracer wire does not function as intended, the Contractor shall repair the system to the satisfaction of the Engineer.

O. Casing Pipe Spacers and End Seals

Casing spacers shall be constructed of circular stainless steel segments which bolt together forming a shell around the carrier pipe. The spacers shall be designed with risers (when needed) and runners to support and center the carrier within the casing and maintain a minimum

clearance of 0.50" between the casing ID and the spacer OD. On carrier pipes with an OD of less than 16", each spacer shall have four riser and runner combinations - two on each segment. On carrier pipes with an OD of 16" and larger, each spacer shall contain six riser and runner combinations - four on the bottom segment and two on the top segment. T-304 stainless steel bolts and nuts shall be supplied with the spacers.

The band shall be manufactured of 8" wide, 14 gauge T-304 stainless steel (1.88mm). The risers shall be constructed of T-304 stainless steel having a minimum length of 6".

Abrasion resistant runners, having a minimum length of 7", and a minimum width of 1", shall be attached to each riser to minimize friction between the casing pipe and the carrier pipe as it is installed. Runners shall be made of ultra high molecular weight polymer which has a low coefficient of friction. The ends of all runners shall be beveled to facilitate installation over rough weld beads or the welded ends of misaligned or deformed casing pipe.

Interior surfaces of the stainless steel shell shall be lined with PVC or EPDM having a minimum thickness of 0.090" with a hardness of durometer "A" 85-90.

The spacing of the spacers shall be a maximum of one foot on each side of the bell joint and one spacer at the center of the pipe.

Full conical shaped wrap-around end seals made of 1/8" synthetic rubber shall be provided for each end of the casing pipe. T 304 stainless steel banding straps with a 100% non-magnetic worm gear mechanism and pressure sensitive butyl mastic strips shall be provided to seal up the end seals. Casing spacers and end seals shall be manufactured by Advanced Products and Systems Inc. or an approved equal. Costs for the spacers and seals shall be included in the price bid for the casing pipe.

P. Steel Casing Pipe Specifications

The steel casing pipe shall be the diameter with a minimum wall thickness shown on the plans and shall be 35,000 psi, ANSI B36.1.

End of Section