FORMAL CONTRACT AND SPECIFICATIONS
SANITARY SEWER IMPROVEMENT E SOUTH ST
CITY OF HASTINGS
Contract No. HU 2025-104

Sealed Proposals Will Be Opened Promptly At
1:30 PM, Wednesday, October 1, 2025

Bid Submitted By: _____

HASTINGS
UTILITIES

ADVERTISEMENT FOR BIDS

The City of Hastings, Nebraska, will receive bids for the: **Sanitary Sewer Improvements E South Street HU 2025-104** until 1:30 p.m. at the City of Hastings, Hastings, Nebraska, on Wednesday, October 1, 2025 at which time and place all bids will be publicly opened and read aloud. **Brief description of project: Install (2) 48" diameter manholes, 430 LF of 8" sewer main and 723 LF of sewer services.** If you plan on bidding and are not already on our approved bidders list for this project, you are REQUIRED to fill out the Plan Holders Submittal Form that is located on the City website: https://www.cityofhastings.org/bids/ .

The Contract Documents, including plans and specifications, are on file at the City of Hastings Offices, 1228 N Denver Avenue, Hastings, Nebraska 68901. Copies of the plans and specifications in electronic (PDF) format may be obtained by visiting the City of Hastings Website: www.cityofhastings.org/bids. A paper copy is available for $75.00, plus sales tax ($5.25), plus shipping.

Each bid shall be accompanied by a certified check, drawn on a solvent bank in the State of Nebraska, or a bid bond in an amount of not less than five percent (5%) of the total bid of all contract construction costs, made payable to the City Treasurer of the City of Hastings, Nebraska, as security that the bidder to whom the contract may be awarded will enter into a contract to build all the improvements in accordance with this notice and give bond in the sum hereinafter provided for the construction of improvements.

No bid shall be withdrawn after opening of bids without the consent of the City of Hastings, Nebraska, for a period of sixty (60) days after scheduled time of closing bids.

Time is of the essence in this contract. In evaluating bid(s) received, the City will consider the timelines of completion of prior construction contracts, existing workload of bidders and available manpower that bidder commits to the project.

The successful bidder will be required to furnish a Maintenance Bond in the sum of the full amount of the Contract within ten (10) days of the date of award. No additional time will be allowed the Contractor for providing the Maintenance Bond.

DATED AT HASTINGS, NEBRASKA, this 12th day of September 2025.

_____

Tyler Ficken, City Clerk

For City Clerk: Publish and Attach two (2) Proofs of Publication
September 16, 2025
September 23, 2025

PROFESSIONAL SEALS

SANITARY SEWER IMPROVEMENT E SOUTH ST
CITY OF HASTINGS

Contract No. HU 2025-104

Professional Engineer Seal	
Specification: • **Sect. 1 General Conditions** • **Sect. 2 Special Provisions** • **Sect. 3 Sanitary Sewer**	

INSTRUCTIONS TO BIDDERS

All proposal information, including any unit price fill in sheets or other required information, shall be submitted on the proposal forms hereto attached. Copies of addenda, if any, shall be signed and attached. City of Hastings does NOT accept faxed or emailed bid returns.

Bidders shall inform themselves of all relevant matters, and, if awarded the contract, shall not be allowed any extra compensation by reason of any matter or thing concerning which such Bidder might not have fully informed themselves, prior to the bidding.

The Bidder bidding on the Specifications herein, who has exceptions to those called for in the Specifications, must so state in the space provided below and/or attach a letter explaining in detail the exceptions taken to those required in the Specifications. This letter of explanation shall become a part of the bid and shall be attached hereto. Failure by the Bidder to outline his exceptions will require the successful Bidder to comply with these Specifications.

EXCEPTIONS TO SPECIFICATIONS:

_____

_____

_____

_____

_____

The Purchaser will not assume obligations resulting from losses or damages until acceptance of the equipment.

Checks of unsuccessful Bidders will be returned when their bids have been rejected and they will not be retained in excess of sixty (60) days from the date bids are opened. The check of the successful Bidder will be retained until the contract is awarded. Should the successful Bidder fail to perform as the Proposal and Specifications indicate, the City may use the check as liquidated damages within fifteen (15) days after written notice is given to the party who submitted the successful bid.

If any person contemplating submitting a bid for this contract is in doubt as to the true meaning of any part of the Specifications or other proposed contract documents, he may submit to Purchaser a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by addendum duly issued or delivered to each person receiving a set of such documents. The Purchaser will not be responsible for any other explanation or interpretation of the proposed documents.

IF YOU HAVE QUESTIONS OR NEED HELP ON SPECIFICATIONS CONTRACT NO: HU 2025-104
Sanitary Sewer Improvement E South Street

PLEASE CONTACT ANY OF THE FOLLOWING:

Technical Questions

Keith Miller, P.E.
Lead Engineer
Ph# 402-462-3549
Email: bidquestions@cityofhastings.org

General Questions or Requests

Renae Griess
Engineering Admin Assistant
Ph# 402-462-3665
Email: bidquestions@cityofhastings.org

HASTINGS

SUBMITTAL INSTRUCTIONS

Your bid must be returned by means of hand delivery, USPS, FedEx, UPS, or other carrier. City of Hastings DOES NOT ACCEPT bids that are faxed or emailed.

ALL the following documents are REQUIRED TO BE SUBMITTED in your bid packet:

1. **Cover sheet with your company's name filled in**
2. **ALL addendums received – must be acknowledged and signed**
3. **Bid Bond**
4. **If "exceptions" are taken, include Instructions to Bidders**
5. **Proposal Page(s)**

Failure to return required bid documents as instructed could subject your bid proposal to be rejected.

IMPORTANT MAILING (OR HAND DELIVERY) INSTRUCTIONS

Please address your return envelope as shown in the example below. All bids must be sealed in a properly marked envelope.

To hand deliver please drop off between the hours of 8am – noon and 1pm – 5pm Monday-Friday.

Your Return Address

City of Hastings
Attn: Renae Griess
1228 N Denver Avenue
Hastings, NE 68901

This Information MUST BE typed or written in the lower left hand corner of return envelope
OR SIMPLY CUT OUT AND TAPE ON YOUR RETURN ENVELOPE

✂ ✂ ✂ ✂

BID DOCUMENTS ENCLOSED
ATTN: Renae Griess, Administrative Assistant
Contract No: HU 2025-104
Sanitary Sewer Improvement E South St
Bid Opens: Wednesday, October 1, 2025 @ 1:30 pm

If returning Fed-X or similar carrier, please enclose the bid in an "inner" envelope which is sealed. Please make sure BOTH envelopes are properly marked on the OUTSIDE OF THE ENVELOPE as shown in the example above.

One bid per envelope. Bid submittal via email is not allowed. Bids must be checked in to the City of Hastings prior to 1:30 pm deadline.

FORMAL PROPOSAL FOR
SANITARY SEWER IMPROVEMENT E SOUTH ST
CITY OF HASTINGS
Formal Contract No. HU 2025-104

City of Hastings
1228 N Denver Avenue
Hastings NE 68901

BID OPENS: October 1, 2025 @ 1:30 PM

SEALED BIDS MUST BE RECEIVED NO LATER THAN 1:30 PM SAME DAY. BIDS RECEIVED AFTER THAT TIME WILL NOT BE ACCEPTED.

We, the undersigned, being familiar with all parts of these documents, being Notice to Bidders, Bid Proposal Price Sheets, Contract Document Forms, Plans and Specifications, Affidavit, Material List, and all other parts of this document, do herein submit our proposal to furnish, install, and perform all tasks required to complete said project area(s) for the total costs; including all necessary state and local sales taxes, and any other required taxes.

Completion Date: ***May 1, 2026***

Project will be awarded to one Contractor

Item	Description	Qty	Unit	Qty Price	Total Price
1.	8" PVC SDR-35 Sanitary Sewer Main	431	LF		
2.	48" Dia. Manhole Cone	1	EA.		
3.	60" Dia Manhole Cone	1	EA.		
4.	48" Dia. Manhole Base	1	EA.		
5.	60" Dia Manhole Base	1	EA.		
6.	48" Dia. Manhole Section	7.95	VF.		
7.	60" Dia Manhole Section	12.77	VF.		
8.	Ring and Cover	2	EA		
9.	4'x4' Concrete Manhole Collar	2	EA.		
10.	4" Service Tap	2	EA.		
11.	4" PVC Service Line	583	LF		
12.	1-1/2" PVC Service Line	140	LF		
13.	Concrete/Asphalt Paving Removal	490	SY		
14.	Concrete/Asphalt Paving Replacement	490	SY		
15.	Saw Cut	875	LF		

TOTAL PRICE:	
	$_____
In Words	

For purposes of sales/use tax, this project falls under Nebraska Sales and Use Tax Regulation 1-017 for Contractors. By definition, a contractor is "any person who repairs property annexed to, or who annexes property to, real estate, including leased property, by attaching building materials to the annexed property or improvement being built or repaired, or who arranges for annexation of property." Please refer to www.revenue.nebraska.gov/salestax.html for additional information.

FORMAL PROPOSAL FOR
SANITARY SEWER IMPROVEMENT E SOUTH ST
CITY OF HASTINGS
Formal Contract No. HU 2025-104

For calculating this proposal:

- All contractors are to include sales/use tax on materials in the bidder's prices if applicable.
- **Option 1 contractors must separately state materials, sales tax, labor, and other charges on all invoices for the project. Any invoices submitted that do not include this required breakdown of the charges will not be accepted for payment. (This requirement does not apply to Option 2 or 3 contractors.)**
- The sales/use tax rate on building materials is 7.0% for projects within Hastings' city limits and 5.5% for projects outside of city limits.
- Contractor labor charges for this proposal are not subject to sales/use tax per the Nebraska Department of Revenue Notice to Contractors effective October 1, 2007.
- In submitting this bid, the bidder certifies that he will comply with all applicable laws, ordinances, and codes of the City of Hastings and the Sate of Nebraska.
- **Sewer Main Project is tax exempt.**

What contractor option have you registered with the Nebraska Department of Labor (must select one)?
Please refer to https://dol.nebraska.gov for additional information.

Option 1 _____

Option 2 _____

Option 3 _____

Is Nebraska Sales/Use Tax included in the above item no. 1 (must select one)?

Yes _____ No _____

Is Nebraska Sales/Use Tax included in the above item no. 2 (must select one)?

Yes _____ No _____

Any modification of bid proposal will be considered non-conformance of the bid. All exceptions to the proposal shall be noted as an exception to the bid.

Exceptions: No ☐ Yes ☐ (If yes, list on ***"Instructions to Bidders"*** page)

Liquidated Damage: The Contractor shall pay a fee of $100.00 per working day for failure to perform work within either the specified project period or the contract completion date in accordance with Paragraph 1.806 and 1.807 of the general conditions and Paragraph 2.002 of the Special Provision.

City of Hastings may at its own discretion delete any project area prior to award of contract.

In submitting this proposal, it is further understood that the City of Hastings reserves the right to reject any or all proposals, whether the price is the lowest or not, and may waive any informalities and may accept the proposal which best suits its needs. It is further understood that this proposal may not be withdrawn for a period of sixty days (60) days after the bids are opened.

All bid documents, including proposals, bid bonds, etc., must be submitted with original signatures. No copies will be accepted.

FORMAL PROPOSAL FOR
SANITARY SEWER IMPROVEMENT E SOUTH ST
CITY OF HASTINGS
Formal Contract No. HU 2025-104

OFFICIAL NAME & ADDRESS

Firm Name	Signature
Address	Typed or Printed Name
City, State, Zip	Title
Phone No.	Date
Fax No.	Email Address

SUB CONTRACTOR DESIGNATION SHEET

Contractor to name subcontractors and designate work entailed to them.

Subcontractor	Work Description

Signed By: _____

Title: _____

Company: _____

Date: _____

AGREEMENT

THIS AGREEMENT, made and entered into this day of , 2025, by and between the City of Hastings, Party of the First Part, hereinafter called the "Purchaser" or "City", and , a of (town) in the State of , Party of the Second Part, hereinafter called the "Contractor".

WITNESSETH: THAT,

WHEREAS: The Purchaser has caused the necessary contract documents to be prepared for defining material, equipment, and/or labor to be supplied to the City of Hastings and delivered complete as specified in the accompanying contract documents.

WHEREAS: The Purchaser has advertised for bids from Contractors, has received said bids, analyzed same and duly awarded a contract to the "Contractor", "Party of the Second Part", for material, equipment, and/or labor as hereinafter set forth and as stated more in detail in the Proposal and related contract documents to wit; Notice to Bidders, Instructions to Bidders, Specifications; all of which documents are attached hereto and made a part of this Contract.

NOW, THEREFORE: It is hereby agreed that for the sum of . ($)

to be paid by the Purchaser, within Thirty (30) days after the acceptance of material, equipment, and/or labor by the Purchaser, to the Contractor, the Contractor agrees to furnish all materials, equipment, and/or labor as required by the accompanying specifications, and the aforesaid contract documents, for **Sanitary Sewer Improvement E South St HU 2025-104.**

All materials, equipment, and/or labor shall be in accordance with the accompanying contract documents and specifications which are as much a part of this Agreement as if repeated verbatim herein.

It is further agreed that the Contractor will start work promptly, furnish the necessary drawings promptly and complete the work in the number of days set forth in the Proposal.

AGREEMENT

IN WITNESS WHEREOF: The Parties of the First and Second Parts have hereto set their hands and seals on the day and year above written.

CITY OF HASTINGS
Party of the First Part

By: _____

Date: _____

ATTEST:

_____
City Clerk

CONTRACTOR
Party of the Second Part

SEAL

_____

By: _____

Title: _____

Date: _____

APPROVED TO FORM:

_____
City Attorney

Note: If executed by one other than President, Partner or the individual Owner, a Power-of-Attorney authorizing execution should accompany this Contract.

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS That we, _____

_____ , hereinafter

called the Principal, and _____

hereinafter called the Surety, are held and firmly bound unto the CITY OF HASTINGS, County of ADAMS, State of NEBRASKA, hereinafter called the Owner in the sum of

_____ Dollars: $ _____

lawful money of the United States of America, to be paid to the CITY OF HASTINGS, NEBRASKA, for the payment whereof the Principal and Surety hold themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has, by means of a written agreement dated _____

20 _____ , entered into a contract with the CITY OF HASTINGS, NEBRASKA, for the

Sanitary Sewer Improvement E South St

HU 2025-104

a copy of which contract is by reference made a part hereof.

NOW, THEREFORE, the conditions of this obligation are such that

FIRST: If the Principal shall faithfully perform the contract on his part, and satisfy all claims and demands incurred for the same and shall fully indemnify and save harmless the CITY OF HASTINGS, NEBRASKA, from all cost and damage which said Owner may suffer by reason of failure so to do, and shall fully reimburse and repay said Owner all outlay and expense which said Owner may incur in making good any such default, and shall pay all persons who have contracts directly with the Principal for labor and materials, and

SECOND: The Principal shall protect and hold harmless the CITY OF HASTINGS, NEBRASKA, from any and all suits and actions of every description that may be brought against said Owner on account of injuries to or death of persons or damage to property received or sustained by any person or persons through the negligence of the Principal or his agents; and

THIRD: The Principal shall warrant the work constructed under his contract and keep in good repair at no cost to the Owner for a period of THREE (3) years from date of formal acceptance by said Owner, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

The Principal and Surety or Sureties on this bond hereby agree to pay all persons, firms, or corporations having contracts directly with the Principal or with subcontractors, all just claims due them for labor performed or material furnished in the performance of the contract on account of which this bond is given, when the same are not satisfied out of the portion of the contract price which the public corporation is required to retain until the completion of the public improvement, but the Principal and Surety shall not be liable to said persons, firms, or corporations unless the claims of said claimants against said portion of the contract price shall have been established by law.

Every surety on this bond shall be deemed and held, any contract to the contrary notwithstanding, to consent without notice:

1. To any extension of time to the Contractor in which to perform the contract.
2. To any change in the plans, specifications or contract, when such change does not involve an increase or more than twenty percent (20%) of the total contract price, and shall then be released only as to such excess increase.
3. That no provision of this bond or of any other contract shall be valid which limits to less than five years from time of acceptance of the work the right to sue on this bond for defects in workmanship or material not discovered or known to the obligee at the time such work was accepted.

SIGNED AND SEALED THIS _____ day of _____ 20_____

IN PRESENCE OF:

_____
(Principal)

By _____
(Name) (Title)

Countersigned: _____
(Surety)

_____
Resident Agent By _____
(Attorney-in-fact)

Filed in my office this _____ day of _____ 20_____

_____
(Clerk)

INSURANCE COVERAGE

The undersigned hereby certifies that Workmen's Compensation, Public Liability and Property Damage, and Automobile Liability and Property Damage Insurance are in force and effect in accordance with the requirements contained in "Instruction to Bidders" which is a part of this document "Bid Proposal and Specifications". We further agree to give ten (10) days notice to the City of Hastings before effective date of cancellation or reduction of any of the above coverage.

This Insurance Coverage applies only to _____

_____

Dated _____

_____
CONTRACTOR

By _____

Title_____

Date _____

_____
INSURANCE COMPANY

By_____

Title_____

Address_____

_____

Date_____

HU Form No. 39

A F F I D A V I T

State of Nebraska)
) ss.
County of Adams)

I _____ , _____
Name Title

of _____
Firm Name

do hereby certify that all subcontractors, vendors, persons or firms who have furnished labor or material for the _____

_____

_____

have been fully paid and that all taxes have been paid.

_____
Signature

_____
Date

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

_____
Notary Public

My commission expires _____.

A signed and notarized copy of affidavit must be in City of Hastings file before final payment may be made.

Copy of forms will be supplied by City of Hastings prior to final payment.

SECTION 1
GENERAL CONDITIONS

SECTION 1-1 - DEFINITION OF WORDS AND TERMS

Wherever in these specifications or in other contract documents the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:

1.101 Advertisement. The advertisement for work or materials on which bids are to be received.

1.102 Award. The decision of the City to accept the proposal of the lowest responsible bidder for the work, subject to the execution and approval of a satisfactory contract thereof and bond to secure the performance thereof, and to such other conditions as may be specified or otherwise required by law.

1.103 Bidder. Any individual, firm, or corporation formally submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.

1.104 Calendar Day. Every day shown on the calendar, except weekends and holidays included: New Year's Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving, Friday after Thanksgiving, ½ Day Christmas Eve, and Christmas Day.

1.105 Change Order. A written order to the Contractor, signed by the Engineer, ordering a change in the work from that originally shown in the plans and specifications.

1.106 City. The word "City" as used in these specifications refers to City of Hastings, Nebraska.

1.107 Contract. The written agreement executed between the City and the Contractor, covering the performance of the work and the furnishing of labor and materials, by which the Contractor is bound to perform the work and furnish the labor and materials, and by which the City is obligated to compensate him therefore at the mutually established and accepted rate or price.

The contract shall include the "Notice to Bidders", these specifications, the Contractor's Bond, the general and detailed plans, the Proposal, Special Provisions, and Supplemental Agreements.

1.108 Contract Item. An item of work specifically described and for which a price, either unit or lump sum, is provided. It includes the performance of all work and the furnishing of all labor, equipment, and materials described in the text of a specification item included in the contract or described in any subdivision of the text of the supplemental specification or special provision of the contract.

1.109 Contract Period. The period from the date specified in the contract for the commencement of work to the date specified for its completion, both dates inclusive.

SECTION 1- GENERAL CONDITIONS

1.110 Contractor. The party of the second part to the contract; the individual, firm, or corporation undertaking the execution of the work under the terms of the contract and acting directly or through his, their, or its agents or authorized employees.

1.111 Easement (Right-of-Way). A right acquired by public authority to use or control property for a designated purpose.

1.112 Engineer. The Director of Engineering, acting either directly or through an assistant or other representative duly authorized by the Director of Engineering, such assistant or representative acting within the scope of the particular duties assigned him, or of the authority given him.

1.113 Extra Work. Work performed by the Contractor in order to complete the contract in an acceptable manner but for which there is no basis of payment provided in the contract.

1.114 Inspector. An authorized representative of the Engineer assigned to make detailed inspection of any or all portions of the work performed and materials furnished by the Contractor.

1.115 Laboratory. The testing laboratory of the City or any other testing laboratory which may be designated by the Engineer.

1.116 Maintenance Bond. Insures the owner of a completed construction project for a specified time period against defects and faults in materials, workmanship and design.

1.117 Notice to Bidders. The provisions, requirements, and instructions pertaining to the work to be awarded, manner and time of submitting proposals, quantities of the major items or work required, as prepared for the information of bidders.

1.118 Performance Bond. The approved form of security, executed by the Contractor and his surety or sureties, guaranteeing complete execution of the contract and all supplemental agreements pertaining thereto and the payment of all legal debts pertaining to the construction of the project.

1.119 Plans. The official plans, profiles, working drawings, and supplemental drawings, or exact reproductions thereof, approved by the Engineer, which show the location, character, dimensions and details of the work to be done, and which are to be considered as a part of the contract supplementary to these specifications.

1.120 Project. The specific section of the street together with all appurtenances and construction to be performed thereon under the contract.

1.121 Proposal. The offer of the bidder, submitted on the prescribed proposal form, to perform the work and to furnish the labor and materials at the prices quoted by the bidder.

1.122 Proposal Form. The approved form on which the City requires formal bids be prepared and submitted.

1.123 Proposal Guaranty. The security furnished by the bidder with his proposal for a project, as a guaranty that he will enter into a contract for the work if his proposal is accepted.

1.124 Right-of-Way. The land area which is reserved or secured by the City for constructing the work or for obtaining material therefore.

1.125 Special Provisions. Special directions, provisions or requirements peculiar to the project under consideration and not otherwise thoroughly or satisfactorily detailed or set forth in the specifications. See Section II Special Provisions.

1.126 Specifications. The general term comprising all the directions, provisions, and requirements contained herein, together with such as may be added or adopted as supplemental specifications or special provisions, all of which are necessary for the proper performance of the contract.

1.127 Subcontractor. Any individual, firm, or corporation to whom the Contractor, with the written consent of the City, sublets any part of the contract.

1.128 Superintendent. The representative of the Contractor, present on the work at all times during progress, authorized to receive and fulfill instructions from the Engineer and capable of superintending the work efficiently.

1.129 Surety. The corporate body bound with and for the Contractor for the acceptable performance of the contract and the completion of the work, and for payment of all just claims arising therefrom.

1.130 Work. Work shall be understood to mean the furnishing of all labor, materials, equipment, paying all applicable city, state, and federal taxes, and other incidentals necessary or convenient to the successful completion of the project by the Contractor and the carrying out of all the duties and obligations imposed by the contract if applicable.

1.131 Working Day. Any day, except Saturdays, Sundays, and City of Hastings holidays. Working days for a project area shall be counted consecutively from project starting date.

1.132 Completion of the Work and Formal Acceptance by the City. Whenever the term "completion of the work and formal acceptance by the City" is used, it refers to and means the formal acceptance of the work by the Engineer and the City at the time the Contractor has all work under the contract completed and in place. Release of the final pay estimate shall constitute formal acceptance by the City.

1.133 Final Acceptance of the Work. Whenever the term "final acceptance of the work" is used, it refers to and means the time when the Engineer and City finally accept the work after the expiration of the time for which the Contractor guarantees to keep the work in repair.

1.134 Abbreviations.

A.A.S.H.O.	American Association of State Highway Officials
A.S.M.E.	American Society of Mechanical Engineers
A.S.T.M.	American Society for Testing Materials
A.R.E.A.	American Railway Engineering Association

SECTION 1- GENERAL CONDITIONS

A.W.S.	American Welding Society
D.O.T.	Department of Transportation, Office of Pipeline Safety
O.S.H.A.	Occupational Safety and Health Administration
A.W.W.A.	American Water Works Association

SECTION 1-2 - PROPOSAL REQUIREMENTS AND CONDITIONS

1.201 Contents of Proposal Forms. Bidders will be furnished with proposal forms which will state the location and description of the contemplated work and will show the estimate of the various quantities and kinds of work to be performed or materials to be furnished, with a schedule of items for which unit bid prices are asked, and the time in which the work must be completed, and the date, time, and place of opening bids. All special provisions and required provisions will be grouped together and bound with or included through reference in the proposal form.

1.202 Interpretation of Quantities in Proposal Forms. The quantities listed in the proposal forms are to be considered as approximate, unless otherwise provided by special provision. It is understood that the quantities of work to be done and materials to be furnished may each be increased, diminished or omitted, as hereinafter provided, without in any way invalidating the unit bid prices, except as provided in Article 1.403.

1.203 Examination of Plans, Specifications, Special Provisions, and Site of Work.. The bidder is required to examine carefully the site, and the proposal, plans, specifications, special provisions, and contract form, for the work contemplated, and it will be assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of these specifications, the special provisions, and contract. It is mutually agreed that the submission of a proposal shall be considered prima facie evidence that the bidder has made such examination.

1.204 Preparation of Proposal. Bidders shall submit their proposals on blank forms furnished by the Engineer, with the full name and address and the place of business or residence of the bidder. If the bidder is co-partnership, then the signature shall be by a member of the firm, with the names and addresses of each member; and if a corporation, then by an officer of the corporation in the corporate name and with the corporate name and with the corporate seal attached thereto.

All blank spaces in the form shall be fully filled; numbers shall be stated in legible figures and writing when required; the signature shall be longhand; and the complete form shall be without interlineation, alteration or erasure.

No oral, telegraphic, telephonic, faxes, or electronically mailed proposals or modifications will be considered.

When certain alternative prices, for both increasing and decreasing the cost, are required, as called for in the proposal sheet, it must be understood that all materials and workmanship required shall be the best of their respective kinds; and in all cases, shall correspond with similar

work herein specified and, if accepted, the work shall be done under the general terms of the specifications.

1.205 Statement of Bidder's Financial Conditions. Any bidder may be required by the City to submit data to satisfy the City that such bidder is prepared to fulfill the contract if it is awarded to him.

1.206 Certified Check, Cashier's Check or Bid Bond. Each bidder must submit with his proposal a certified check, cashier's check or bid bond in the amount of not less than five percent (5%) of the amount bid, drawn to the order to the City of Hastings, Nebraska, guaranteeing the execution of the contract and bond required, within ten (10) days of the notification of award. Any certified check must be issued by a U.S. Commercial Bank.

1.207 Filing of Proposal. The proposal and the supporting proposal guaranty for each project shall be filed in separate but attached envelopes, so marked as to indicate their contents. All proposals shall be filed with the City at the place designated in the notice to bidders, prior to the time advertised for the opening of bids.

1.208 Withdrawal of Proposal. A bidder will be permitted to withdraw his proposal unopened after it has been submitted, if his request for withdrawal is made in writing and delivered personally by the bidder or his authorized representative prior to the time specified for opening bids.

1.209 Public Opening of Proposals. Proposals will be publicly opened and read at the time and place stipulated in the notice to bidders.

1.210 Material Guaranty. The bidder may be required to furnish a complete statement of the origin, composition, and manufacture of any or all materials to be used in the construction of the work, together with samples, which samples may be subjected to the tests provided for in these specifications to determine their quality and fitness for the work.

SECTION 1-3 - AWARD OF CONTRACT

1.301 Consideration of Proposals. After the proposals are opened and read, they will be compared on the basis of the summation of the products of the quantities shown in the bid schedule by the unit bid prices. The results of such comparisons will be immediately available to the public.

The right is reserved to reject any and all proposals and to waive technical errors as may be deemed best for the interest of the City.

1.302 Award of Contract. In the award of contract, consideration will be given not only to the prices bid but also the mechanical and other equipment available to the bidder, the financial responsibility of the bidder, and his ability and experience in the performance of like or similar contracts.

The award of alternatives proposed will be selected not only of the price but of the quality of the products provided, availability of replacement parts, repair, connection to future or existing systems, longevity, durability, function, and all other engineering and operational consideration.

Award of contracts will be made as promptly as practical after bids have been opened and read. The City reserves the right to delay the award for such time as is needed for the consideration of the bids, and for the receipt of concurrence in recommended contract awards from other governmental agencies whose concurrence may be required.

1.303 Cancellation of Award. The City reserves the right to cancel the award of any contract at any time before the execution of the said contract by all parties without any liability against the City.

1.304 Return of Proposal Guaranty. Proposal guaranties will be returned to the unsuccessful bidders by mail promptly after the signing of the contract has been made. Return to the successful bidder will be made after the signing of the contract and filing of the contract bond.

1.305 Maintenance Bond. The Contractor shall furnish a maintenance bond with a company having the approval of the City in an amount of one hundred percent (100%) of the completed construction project for a specified time period of three (3) years against defects and faults in materials, workmanship, and design.

In the event that Contractor chooses to submit a bond other than the bond from contained in this package, such submission is done at the risk of the bidder. All such substituted bond forms shall contain indemnification both for performance and warranty as set out more fully in these documents

1.306 Performance Bond. The Contractor shall furnish a performance bond with a company having the approval of the City in an amount of one hundred percent (100%) of the contract price guaranteeing complete and faithful performance of the contract, payment of all bills of whatever nature which could become a lien against the property.

In the event that Contractor chooses to submit a bond other than the bond from contained in this package, such submission is done at the risk of the bidder. All such substituted bond forms shall contain indemnification both for performance and warranty as set out more fully in these documents.

1.307 Failure to Execute Contract. Failure to execute a contract and file an acceptable performance bond, as provided herein, within ten (10) days from date of award shall be just cause for the annulment of the award and the forfeiture of the certified check, bid bond, or cashier's check to the City, not as a penalty but in liquidation of damages sustained.

SECTION 1-4 - SCOPE OF WORK

1.401 Intent of Plans and Specifications. The intent of the plans and specifications is to provide for the construction and completion of every detail of the work described therein. It shall be understood by the Contractor that he will furnish all labor, materials if applicable (see Section 5 paragraph 5.002 for gas main installation materials), tools, transportation, and supplies required for all or any part of the work to make each item complete in accordance with the spirit of the contract. It is understood that the apparent silence of the specifications as to any detail, or the apparent omission of a detailed description concerning any point, shall be regarded as

meaning that only the best general practice is to prevail, and that only materials and workmanship of the best quality are to be used.

For the purpose of design and the preparation of the Engineer's estimate, the City may perform a reasonable amount of exploratory work to gain information relative to surface and subsurface conditions relating to types of soil, moisture content and types and extent of rock strata.

This information, when shown on the plan, represents to the best of the City's knowledge, conditions as of the date the survey was made. The appearance of this information on the plan will not constitute a guarantee that conditions other than those indicated will not be encountered at the time of construction.

The bidder may utilize this information as he sees fit. Any bidder interested in the work is authorized to make whatever additional investigation he considers advisable.

In making such additional investigation, the bidder is directed to the Engineer for information relating to available right-of-way. If there are, at that time, any parcels of land over which the City does not have jurisdiction, right of entry must be secured by the prospective bidder from those authorized to grant such permission.

1.402 Special Work. Any conditions not covered by these standard specifications are stated in the special provisions.

1.403 Increased or Decreased Quantities of Work. The Engineer reserves the right to alter the quantities of contract items for which there are bid prices. Such increases or decreases in quantities shall be made as he considers necessary or desirable without waiving or invalidating any of the provisions of the contract; provided, that all such alterations shall be ordered in writing and that a supplemental agreement shall be executed with the Contractor for the item or items involved, when such alterations involve an increase or decrease of more than twenty percent (20%) of the total cost of the work of any group of the contract calculated from the original proposal quantities and the contract unit prices. The Contractor shall not start on any alteration requiring a supplemental agreement until the agreement setting forth an equitable adjustment of compensation, satisfactory to both parties, shall have been executed by the Engineer and the Contractor.

1.404 Changes in Work - Change Order. The City reserves the right to order the performance of work of a class not contemplated in the proposal but which may be considered necessary to complete satisfactorily the work included in the contract. All change orders must be approved in writing prior to start of work.

a. If applicable unit prices are not contained in the Agreement or if the total net change increases or decreases the total Contract Price more than twenty (20) percent, the City shall, before ordering the Contractor to proceed with desired changes, request an itemized proposal from him covering the work involved in the change after which the procedures shall be as follows:

    1. If the proposal is acceptable, the City will prepare the change order in accordance therewith for acceptance by the Contractor.

2. If the proposal is not acceptable and prompt agreement between the two parties cannot be reached, the City may order the Contractor to proceed with the work on a cost-plus-limited basis. A cost-plus-limited basis is defined as the net cost of the Contractor's labor, materials, and insurance plus fifteen (15) percent of said net cost to cover overhead and profit, the total cost not to exceed a specified limit.

b. Each change order shall include in its final form:

1. A detailed description of the change in the work.

2. The Contractor's proposal (if any) or a conformed copy thereof.

3. A definite statement as to the resulting change in the Contract Price and any impacts on project schedule.

4. The statement that all work involved in the change shall be performed in accordance with Contract requirements except as modified by the change order.

1.405 Removal and Disposal of Structures and Obstructions. The Contractor for bridge and culvert work shall remove any existing structure or part of structure that in any way interferes with the new construction. If specific payment for such work has not been provided in the contract, it will be paid for as extra work.

The Contractor shall remove any materials or structures found on the right-of- way which are not to remain in place or which have not been designated for use in the new construction. The removal and disposal of pipe culverts will not be paid for directly, but shall be considered as incidental work, and the cost of such removal and disposal shall be considered to be included in the contract price for other items. Pipe culverts shall be removed by methods that will cause a minimum of damage to the pipe culverts. The removal and disposal of bridges or other masonry or monolithic concrete construction will be paid for. If the contract does not contain an item for such work, it will be paid for as extra work. Whenever City of Hastings requires abandonment of old utility mains or services, the Contractor shall plug or cap all open ends.

1.406 Rights In and Use of Materials Found on the Right-of-Way. Unless stated to the contrary in the contract documents, all materials, such as stone, gravel, sand, timber, and structures or parts of structures, found on the right-of-way of the street or on land acquired for the work, are the property of the City or the City of the fee title to the land, and shall not be used or destroyed by the Contractor without special permission from the Engineer. When the Contractor is permitted to use materials found on the right-of-way, any excavations that he makes below the grade elevation shall be backfilled with other suitable materials so that the finished street will conform to the grade shown on the plans. No extra compensation will be allowed for such backfilling.

When rock excavation is encountered, any portion of rock excavation which would otherwise be deposited in waste areas and not be incorporated in the embankments may be processed and used, royalty free, by the Contractor in any other portion of the construction in which material of that quality would be acceptable. No deduction will be made from excavation quantities for rock so used.

1.407 Right-of-Way. Right-of-Way for the work will be provided without cost to the Contractor. Right-of-way will be made available to the Contractor on or before the date specified for the commencement of the work, unless a later date for the right-of-way to be made available to the Contractor is designated in the contract documents.

1.408 Railroad Crossings. Whenever the work involves construction with which railroad companies are concerned, the performance of the work is contingent upon arrangements with the railroad companies for the proposed construction. No claims will be allowed for loss or damage caused by failure to complete such arrangements. The Contractor is responsible to pay for any railroad required Contractor's fees.

SECTION 1-5 - CONTROL OF WORK

1.501 Authority of Engineer. The Engineer will decide any questions that arise with reference to the intent of the contract documents and compliance therewith. They will resolve all questions relating to materials, work, progress, disputes and mutual rights between contractors, fulfillment of contract and compensation, in accordance with the provisions of these specifications.

1.502 Plans and Working Drawings. The approved plans will be supplemented by such working drawings as are necessary to adequately control the work. It is mutually agreed that all authorized alterations affecting the requirements and information given in the approved plans shall be in writing.

Working drawings for any structure shall consist of such detailed plans as may be required of the Contractor for the execution of the work. These are not included in the plans furnished by the Engineer. They shall include shop details, erection plans, masonry, and form work. The Engineer's prior approval of the shop details must be obtained before any fabrication work involving these plans is performed. Erection plans, masonry layout diagrams, and plans for cribs, cofferdams, false work, centering and framework, as well as any other working drawings not previously mentioned, may be required of the Contractor and shall be subject to the Engineer's approval.

1.503 Alteration of Plans or of Character of Work. The Engineer shall have the right to make alterations in plans or character of work as may be considered necessary or desirable during the progress of the work to complete satisfactorily the proposed construction. Such alterations shall not be considered as a waiver of any conditions of the contract or invalidate any of the provisions thereof.

1.504 Coordination of Plans, Specifications, Special Provisions and Supplemental Specifications. These specifications, the supplemental specifications, the plans, special provisions, and all supplementary documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complimentary and to describe and provide for a complete work.

1.505 Cooperation of Contractor. The Contractor will be supply a minimum of two sets of approved plans and contract assemblies, including special provisions, one set of which the contractor shall keep available on the work at all times.

The Contractor shall give the work the constant attention necessary to facilitate the progress thereof, and shall cooperate with the Engineer and other contractors in every way possible.

The Contractor shall at all times have on the work, as his agent, a competent superintendent capable of reading and thoroughly understanding the plans and specifications, knowledgeable in the pertinent industry codes and standards, thoroughly experienced in the type of work being performed, who shall receive instructions from the Engineer or his authorized representatives.

The superintendent shall have full authority to execute the orders or directions of the Engineer without delay, and to promptly supply such materials, equipment, tools, labor and incidentals as may be required. Such superintendent shall be furnished irrespective of the amount of work sublet.

Before starting any work under this Contract, the Contractor shall file with the City a letter signed by an officer of the company (or City, or partner, as the case may be), giving the name, address, and telephone number of the superintendent who is to represent the Contractor in all matters with prosecution of the work and who is to officially receive on behalf of the Contractor, notices or directions issued by the City or its Engineer, and act upon them as required. If, during the life of the Contract, a change in superintendents is made by the Contractor, a new letter shall be filed simultaneously with the change.

1.506 Surveys. Lines and elevations shall be established by the Engineer before the work commences, and the Contractor shall obtain lines and elevation from the points so set by the Engineer. The Contractor shall furnish all stakes necessary for lines and elevations and necessary cooperation for the Engineer in setting same.

All property pins, section corners, right of way monuments, permanent bench marks (brass caps), and all other survey monuments disturbed or removed by the Contractor shall be replaced by a licensed Surveyor at the expense of the Contractor. The Contractor shall take all necessary precaution to maintain in good condition all survey monuments.

The Contractor will insure the Engineer or his representative is present to verify the elevation of each sanitary sewer manhole set or tied into. The Contractor will also insure the Engineer or his representative is present to verify the location of all utilities (highways, railroads, drainage, etc.) uncovered, crossed, or otherwise exposed during the completion of the project. The Contractor shall keep the Engineer or his representative abreast of activities so adequate response by the Engineer or his representative can be made without unduly delaying the construction process. A 24 hour notice may be enforced if sufficient time is not allowed by the Engineer or his representative to conduct all necessary field surveys.

See specification 2.013 for additional information.

1.507 Authority and Duties of Inspector. The City may appoint inspectors to represent the Engineer in the inspection of all materials used in and all work done under the contract. Such inspection may extend to any part of the work and to the preparation of manufacture of the materials to be used. The Inspector will not be permitted to modify in any way the provisions of the contract documents, nor to delay the work by failing to inspect materials and work with reasonable promptness. An inspector is placed on the work to keep the Engineer informed as to its progress and the manner in which it is being done; also, to call the Contractor's attention to any infringements of the contract documents. The Inspector will not act as foreman or perform other duties for the Contractor, not improperly interfere with the management of the work. He will not be authorized to approve or accept any portion of the work. In case of dispute between the Contractor and Inspector as to quality of materials or the manner of performing the work, the

Inspector shall have authority to reject materials or suspend the work until the question at issue can be decided by the Engineer. Written notice of the suspension of work will be given to the Engineer and the Contractor.

Upon the failure of Contractor or its Subcontractors to comply with any of the requirements of this Contract (but not limited to quality or safety), the City shall have the authority to stop any portion of the work affected by such failure until such failure is remedied. If the City issues a Stop Work Order, the City shall not be liable for any costs or expenses claimed by Contractor arising out of such issuance. The construction schedule shall not be delayed or extended as a result of the City's issuance of a Stop Work Order.

1.508 Inspection of Work.

a. The Contractor shall notify the City sufficiently in advance of backfilling or concealing any facilities to permit proper inspection. If any facilities are concealed without approval or consent of the City, the Contractor shall uncover for inspection and recover such facilities, all at his own expense.

b. The Contractor shall furnish the Engineer with every reasonable facility for ascertaining whether the work is being performed in conformance with the contract documents. At any time before acceptance of the work, upon request of the Engineer, the Contractor shall remove or uncover such portions of the finished work as the Engineer may direct. After examination has been made, the Contractor shall restore such portions of the work to the standard required by the contract documents.

c. Should it be considered necessary or advisable by the City any time before final acceptance of the entire work to make an examination of work already completed by uncovering the same, the Contractor shall on request promptly furnish all necessary facilities, labor and material. If such work is found to be defective in any important respect, due to fault of the Contractor or his Subcontractors, the Contractor shall defray all expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the actual cost of labor and material necessarily involved in the examination and replacement, plus fifteen (15) percent of such costs to cover superintendent's, general expenses and profit, shall be allowed the Contractor and he shall in addition, if completion of the work of the entire Contract has been delayed thereby, be granted a suitable extension of time on account of the additional work involved.

1.509 Removal of Defective Work. Any defective work shall be removed and replaced at the Contractor's expense. Should the Contractor fail or refuse to remove defective work when so ordered by the Engineer, the Engineer shall have authority to order the Contractor to suspend further operations, and may withhold payment on estimates until such defective work has been removed and replaced in accordance with the plans and specifications. Continued failure or refusal on the part of the Contractor to correct defective work promptly shall be sufficient cause for the City to declare the contract in default, and to proceed to have the work completed in accordance with Article 1.808.

1.510 Final Inspection. Upon written notification by the Contractor or his authorized representative that the work is completed, the Engineer shall make a final inspection within 10 days of the completion of all work included in the contract. If the work is found not to be in

accordance with the contract documents, the Engineer shall provide the Contractor with a "Punch List" of the particular defects to be remedied.

Once the Engineer and Contractor determines the work is completed a written Notice by the Engineer shall be given to the Contractor within 10 days of the completion of all work items.

1.511 Review By City. The City, its authorized representatives and agents shall at all time have access to and be permitted to observe and review all work, materials, equipment, payrolls, personnel records, employment conditions, material invoices, and other relevant data and records pertaining to this Contract, provided, however, that all instructions and approval with respect to the work will be given to the Contractor only by the City through its authorized representatives or agents.

1.512 Quality Control. The contractor shall make every effort to provide control of the workmanship of the project. This shall include but not be limited to the following construction practices.

1. Concrete surfaces of sidewalks, paving, slab on grade and other related concrete work shall be smooth and constructed to the elevations as shown on the plans or as directed by the Engineer. An acceptable construction tolerance shall be agreed upon before work is to begin. The Contractor shall notify the Engineer 72 hours before any work is to begin which will involve concrete finishing.
2. Lines and grades of all pipes, conduits, casing, grading, etc. shall be constructed according to the plans or as directed by the Engineer. An acceptable construction tolerance shall be agreed upon before any pipeline, conduit installation, casing installation, or grading begins.

SECTION 1-6 - CONTROL OF MATERIALS.

1.601 Source of Supply and Quality Requirements. The materials used on the work shall meet all quality requirements of the contract. In order to expedite the inspection and testing of materials, the Contractor shall notify the Engineer of his proposed sources of materials prior to delivery. At the option of the Engineer, approval of the source or approval of materials at the source prior to delivery may be required. If it is found after trial that sources of supply for previously approved materials do not produce specified products or when conditions are such that the use of unfit materials cannot be prevented except by extraordinary inspection methods, the Contractor shall furnish materials from other sources. Before delivery is started and at any time during the process of preparation and use, the materials shall be subject to the approval of the Engineer.

All materials supplied shall be new and undamaged.

1.602 Storage of Materials. The Contractor shall be responsible for the care and storage of materials delivered on the work or purchased for use thereon. Any material that has been delivered on the work and has become damaged before actual incorporation in the work may be rejected by the Engineer even though it may previously have been accepted. Stored materials shall be so located as to facilitate thorough inspection.

1.603 Unacceptable Materials. All materials not conforming to the requirements of the specifications at the time they are to be used shall be considered as unacceptable and all such materials will be rejected and shall be removed immediately from the site of the work unless

otherwise instructed by the Engineer. No rejected material, the defects of which have been corrected, shall be used until approval has been given.

1.604 Guarantee. The Contractor shall guarantee the design, equipment, materials, and workmanship furnished under this Contract to be as specified and to be free from defects during the guarantee period. In addition, the equipment and materials furnished by the Contractor shall be guaranteed to be free from defects in design.

Except as otherwise prescribed by the terms of any special guarantees required by the contract documents, the guarantee period shall begin on the date of formal acceptance by the City and shall end 36 months later.

Upon notification, the Contractor shall promptly make all adjustments, repairs, or replacements which, in the opinion of the Engineer or City, arose out of defects and became necessary during the guarantee period.

The cost of all materials, parts, labor, transportation, supervision, special tools, and supplies required for replacement or repair of parts and for correction of defects shall be paid by the Contractor or by the surety.

This guarantee shall be extended to cover all repairs and replacements furnished under the guarantee, including repair for ditch settlement, and the period of the guarantee for each such repair or replacement shall be 36 months after installation or the end of the project guarantee period, whichever is later, except as otherwise prescribed by the terms of any special guarantees required by the contract documents.

If within 10 days after the City has notified the Contractor of a defect, failure, or abnormality in the work, the Contractor has not started to make the necessary repairs or adjustments, the City is hereby authorized to make the repairs or adjustments or to order the work to be done by a third party, the cost of the work to be paid by the Contractor.

In the event of an emergency where, in the judgment of the City, delay would cause serious loss or damage, repairs or adjustments may be made by the City, or a third party chosen by the City, without advance notice to the Contractor and the cost of the work shall be paid by the Contractor or by the surety.

The acceptance of the installation, or any part of it, shall not act to waive this liability on the part of the Contractor.

1.605 "Or Equal" Clause. Whenever, in any section of the contract documents, plans or specifications, any article, materials, or equipment is defined by describing a proprietary product or by using the name of a manufacturer or vendor, the term "or approval equal", if not inserted, shall be implied. The specified article, material, or equipment mentioned shall be understood as indicating the type, function, minimum standard or design, efficiency and quality desired, and shall not be construed in such a manner as to exclude manufacturer's products of comparable quality, design and efficiency. The Engineer shall determine the acceptability of articles, materials or equipment proposed as equals.

1.606 Shop Drawings. The Contractor shall submit for review and approval all shop drawings as indicated in these specifications before the beginning of construction. Failure to submit shop drawings shall suspend payment of any materials delivered or installed. This includes delivery of materials in storage. These requirements will be strictly enforced.

SECTION 1-7 - LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

1.701 Laws to be Observed. The Contractor shall keep himself fully informed of, and at all times, shall observe and comply with all federal and state laws, all local bylaws, ordinances, and regulations, and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. The Contractor shall protect and indemnify the City and its representatives against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself or his employees. It shall be the responsibility of the Contractor to provide all safeguards, safety devices and protective equipment and to take any other needed actions as are reasonably necessary to protect the life and health of employees on the project.

Work Eligibility Status. As required under Nebraska LB 403 for any contract entered into after October 1, 2009 the Contractor must register and use a federal immigration verification system, such as the E-Verify Program or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility of a newly hired employee pursuant to the Immigration Reform and Control Act of 1986, to determine the work eligibility status of new employees physically performing services within the State of Nebraska.

1.702 Fair Labor Standards. The Contractor agrees to comply with all current applicable State, Federal, and City fair labor standards in the execution of the contract.

1.703 Permits. The Contractor shall procure and pay for all permits, licenses and bonds necessary for the execution of his work and/or required for municipal, state and federal regulations and laws.

1.704 Restoration of Surfaces Opened by Permit. Upon the presentation of a duly authorized and satisfactory permit from the City, which provides that all necessary repair work will be paid for by the party to whom such permit is issued, the Engineer may authorize the Contractor to allow parties bearing such permits to make openings in the street. The Contractor shall make in an acceptable manner all necessary repairs due to such openings, and such necessary work ordered by the Engineer shall be paid for as provided in these specifications.

1.705 Safety, Health and Sanitation. In the performance of his contract, the Contractor shall comply with all applicable federal, state and local laws governing safety, health and sanitation.

a. The Contractor shall exercise proper precaution at all time for the protection of persons and property and shall be responsible for all damages to persons or property either on or off the site, which occur as a result of his prosecution of the work. The safety provisions of applicable laws and building and construction codes and OSHA shall be observed, and the Contractor shall take or cause to be taken such additional safety and health measures as the City may determine to be reasonably necessary. Machinery, equipment and all hazards shall be guarded in accordance with the safety provisions of the "Manual of Accident Prevention

in Construction," published by the Associated General Contractors of America, Inc., to the extend that such provisions are not in conflict with applicable local laws. The Contractor shall comply with the latest edition of Part VI of the Manual on Uniform Traffic Control Devices. The Contractor shall install plastic fence on open holes when directed by the Inspector. The Contractor shall wear hard hats and safety glasses at all times on the construction site.

b. The Contractor shall maintain an accurate record all cases of death, occupational disease, or injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under the Contract. The Contractor shall promptly furnish the City with reports concerning these matters.

c. The Contractor shall indemnify and hold harmless the City 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 claim, damage, loss or expense 1) is attributed to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom, and 2) is caused in whole or in part by any negligent act or omission 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, regardless of whether or not it is caused in part by a party indemnified hereunder.

In any and all claims against the City 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 under this paragraph "c" 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 employee benefit acts.

The obligation of the Contractor under this paragraph "c" shall not extend to the liability of the Engineer, his agents or employees arising out of 1) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications, or 2) the giving of or failure to give directions or instructions by the Engineer, his agents or employees provided such giving or failure to give is the primary cause of the injury or damage.

The Contractor shall immediately correct any unsafe conditions identified by the City. In the event the Contractor fails to immediately correct such unsafe conditions, the City may either have the unsafe conditions corrected by others at the Contractor's expense, or direct that the work be stopped in the area of the unsafe condition; however, this right to stop/suspend the work shall not give rise to any duty on the part of the City to exercise this right.

The Contractor waives the right to bring claim for damages against the City or Engineer for the correction of unsafe conditions or work stoppages in connection with the Contractor's Safety, Health, and Accident Prevention Program or such program of another contractor. If such a claim against the City or Engineer is brought by a third party, the Contractor shall indemnify and defend

the City or Engineer against such claim. The Contractor shall submit to City of Hastings a current copy of the company safety manual before starting work.

1.706 Claims for Labor and Materials. The Contractor shall indemnify and save harmless the City from all claims for labor and materials furnished under this contract. When requested by the City, the Contractor shall submit satisfactory evidence that all persons, items, or corporation who have done work or furnished materials under this contract, for which the City may have become liable under the laws of the State, have been fully paid or satisfactorily secured. In case such evidence is not furnished or is not satisfactory, an amount will be retained from money due the Contractor which, in additional to any other sums that may be retained, will be sufficient, in the opinion of the City, to meet all claims of the persons, firms, and corporations as aforesaid. Such sum shall be retained until the liabilities as aforesaid are fully discharged or satisfactorily secured.

1.707 Contractor's Insurance Coverage. The Contractor shall not commence work under this Contract until Contractor has obtained all the insurance required under this article. Furthermore, the Contractor shall not allow any sub-contractor to commence work under this Contract until the sub-contractor has obtained the same insurance as is required of the Contractor. The sub-contractor alone shall be responsible for the sufficiency of its own insurance program.

Certificates of Insurance. Certificates of Insurance acceptable to the City shall be filed with the City prior to commencement of the work. These Certificates shall contain a provision that coverages afforded under the policies will not be canceled, or materially altered, until at least 30 days prior written notice has been given to the City. All insurance carried shall conform to the relevant provisions of the respective Project Documents and be with insurance companies which are rated "A, X" or better by Best's Insurance Guide, or other insurance companies of recognized responsibility satisfactory to the City.

Additional Insureds. Insurance coverages furnished under this Contract, with the exception of Workers' Compensation and Employer's Liability, shall include the City of Hastings and their partners, directors, officers, agents, and employees as Additional Insureds on a primary and noncontributory basis, and shall include Products and completed operations with respect to the activities of the Contractor and shall be maintained for the full duration of the project including for a period after completion to include the statute of repose.

Notwithstanding any other provision of these policies, the insurance afforded shall apply separately to each insured, with respect to any claim, suit, or judgment made or brought by or for any other insured, as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount or amounts for which the insurer would have been liable had only one insured been named.

The City shall not by reason of their inclusion under these policies incur liability to the insurance carrier for payment of premium for these policies.

Waiver Of Subrogation. The Contractor and their sub-contractor shall require their insurance carriers, with respect to all insurance policies, to waive all rights of subrogation against the City their partners, directors, officers, agents, and employees.

Workers' Compensation And Employer's Liability Insurance. The Contractor shall procure, and shall maintain during the life of this Contract, Workers' Compensation Insurance as required by workers' compensation laws of the State of Nebraska and also of the state in which the sub-contractor is domiciled.

The Contractor shall also be protected against claims for injury, disease, or death of employees which, for any reason, may not fall within the provisions of a workers' compensation law. The Employer's Liability Insurance shall contain the following limits of liability:

Bodily Injury by Accident	$500,000 each accident
Bodily Injury by Disease	$500,000 each employee
Bodily Injury by Disease	$500,000 policy limit

General Liability Insurance. This insurance shall be written per project on an "occurrence" policy form, including coverage for premises/operations, products/completed operations, broad form property damage, blanket contractual liability, independent contractor's and personal injury, with no exclusions for explosion, sudden and accidental pollution or an absolute or total pollution exclusion, collapse and underground perils. The commercial general liability policy shall also include a severability of interest clause and a cross liability clause in the event more than one entity is "named insured" under the liability policy. If applicable, this policy shall also be endorsed to include railroad protective with limits no less than replacement cost of the value of any real property covered under any rail agreement entered into by the City. If work is being done near a railroad track, the 50' railroad right of way exclusion must be deleted.

Limits of Insurance shall be as follows:

Each Occurrence Limit	$1,000,000
Products/Completed Operations	$2,000,000
General Aggregate Limit	$2,000,000
Personal and Advertising Injury	$1,000,000

Pollution Liability – (If Applicable).

Limits of at least: $1,000,000 per occurrence; $1,000,000 aggregate

If Contractor or its Sub-subcontractor's work includes but not limited to remediating, handling, processing or disposing of hazardous material including but not limited to asbestos containing materials, silica, lead, PCBs, contaminated soil, etc, coverage shall be provided for bodily injury, property damage and clean-up costs resulting for pollution conditions.

Riggers Liability – (If applicable). Should work involve the moving, lifting, lowering, rigging or hoisting of property or equipment Contractor shall carry Rigger's Liability Insurance to insure against physical loss or damage to the property or equipment on a Replacement Cost Basis

Automobile Liability Insurance. This insurance shall be written under a Business Auto Policy and shall protect the Contractor and Additional Insureds against claims arising from injuries to

members of the public or damage to property of others arising from the use of automobiles whether such automobiles are owned, non-owned, or hired. Automobile insurance shall include Motor Carrier Endorsement Act MCS 90 and transportation pollution coverage if applicable. If work is being done near a railroad track, the 50' railroad right of way exclusion must be deleted.

Limit of Liability	$1,000,000 each accident

Umbrella Liability Policy. This insurance shall protect the Contractor and the Additional Insureds against all claims in excess of the limits provided under the employer's liability, automobile liability, and general liability policies. The liability limits of the umbrella liability policy shall be not less than $5,000,000 per occurrence. This policy shall be an "occurrence" type policy. However, City reserves the right to require higher limits with respect to each project.

Professional Liability (Applicable for contractors providing or is responsible for providing design/engineering/surveying services/or consulting services):

Limits of at least: $1,000,000 per occurrence; $1,000,000 aggregate

Policy shall provide for a retroactive date prior to the starting date of services for which this agreement applies. Policy shall not exclude bodily injury, property damage, or pollution liability. Coverage shall remain in force for a minimum of 3 years following substantial completion of construction through either policy renewal or the purchase of an Extended Reporting Provision. Contractor agrees to waive its rights of recovery. Subcontractor's insurer shall endorse the policy to waive subrogation against Owner and their respective agents, officers, directors and employees.

Transportation Insurance. Contractor shall purchase inland marine coverage at the expense of Contractor on all equipment and materials, where City has an insurable interest. Insurance shall protect for Contractor and City from physical loss of equipment while loading, unloading, in transit to jobsite, and until equipment or materials have been installed or received by City.

Proof of Carriage of Insurance. Satisfactory certificates of insurance shall be filed with the City prior to starting any construction work on this contract. The certificates shall state that thirty (30) days written notice shall be given to the City before any policy covered thereby is changed or canceled.

Indemnification. To the fullest extent permitted by laws and regulations, the Contractor shall defend, indemnify, and hold harmless the City, their officers, directors, partners, consultants, agents, and employees from and against all claims, damages, losses, and expenses, direct, indirect, or consequential (including but not limited to fees and charges of engineers, architects, attorneys, and other professionals and court and arbitration costs) arising out of or resulting from the performance of the work by the Contractor, any sub-contractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work, or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is imposed by law and regulations regardless of the negligence of any such party.

In any and all claims against the City, or of any of their officers, directors, partners, consultants, agents, or employees by any employee of the Contractor, any sub-contractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, this 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 such sub-contractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts, or other employee benefit acts, nor shall this indemnification obligation be limited in any way by any limitation on the amount or type of insurance coverage provided by the City, the Contractor, or any of their sub-contractors.

Property Insurance A.K.A. Builder's Risk. Unless otherwise provided, the CONTRACTOR shall purchase and maintain property insurance, a.k.a. builder's risk insurance, on the building construction project in amount thereto for entire work at site on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in contract documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final acceptance of work by OWNERS. Insurance shall include interests of OWNERS, CONTRACTOR, SUBCONTRACTOR, and sub-subcontractors in work. This property insurance covering work will have deductible for each occurrence, which will be responsibility of CONTRACTOR.

Before an exposure to loss may occur, the CONTRACTOR will provide a copy of the property insurance policy or evidence of property insurance, upon request that includes all property insurance coverages. The CONTRACTOR will not cancel or allow such policy to expire without written notice to the other.

Waivers of Subrogation: OWNER and CONTRACTOR and all SUBCONTRACTORS waive all rights against
(1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) OWNER'S or CONTRACTOR'S consultants, separate contractors, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other perils to extent covered by property insurance obtained, or other property insurance applicable to work, except such rights as they have to proceeds of such insurance held by OWNER and/or CONTRACTOR as fiduciary. OWNER and/or CONTRACTOR, as appropriate, shall require of OWNER'S and/or CONTRACTOR'S consultants, separate contractors, if any, and subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. Policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay insurance premium directly or indirectly and whether or not person or entity had an insurable interest in property damaged.

1.708 Contractor's Responsibility for Utility Property and Services. At points where the Contractor's operations are adjacent to properties of railway, telephone and power companies, or are adjacent to other property, to which damage might result, work shall not be commenced until all arrangements necessary for the protection thereof have been made.

The Contractor shall cooperate with any of the City's underground or overhead utility lines in their removal and rearrangement operations in order that these operations may progress in a reasonable manner, and that duplication of rearrangement work may be reduced to a minimum, and that services rendered by those parties will not be unnecessarily interrupted.

In the event of interruption to water or utility services as a result of accidental breakage, or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority. He shall cooperate with the said authority in the restoration of service as promptly as possible.

In no case shall interruption to water service be allowed to exist outside of working hours. Fire hydrants shall be kept accessible to the Fire Department at all times and no materials shall be kept or stockpiled within fifteen (15) feet of any fire hydrant.

The Contractor must cooperate with the utility companies and schedule his work in such a manner as to protect the existing utility facilities until the facilities are abandoned or replacement facilities are completed. In instances where partial grading is necessary before a utility can install its facilities, the Contractor shall consult with the utility and plan the work so that reasonable time can be allowed the utility for completing its work.

Contractor shall exercise particular care at all times to avoid damage to any of City of Hastings system or other facilities and equipment located at or near the scene of any part of the work, especially such facilities as may be in operation. Any costs for potholing prior to boring are considered subsidiary to the bid.

Contractor specifically acknowledges that it shall be responsible and liable to City of Hastings for all injury or damage to any such existing and operating facilities, including loss of gas or product and all repairs necessitated by any act or omission, resulting in such damages, on the part of the Contractor, his agents or employees, or any subcontractor or subcontractor's agents of employees.

Contractor shall also exercise particular care at all times to avoid damage to underground structures and lines, and specifically recognizes that it shall be held responsible for any injury or damage to unmarked or unidentified underground structures or pipelines, done by Contractor's personnel, or any subcontractor's personnel in connection with performance of the work hereunder.

Please note before beginning any excavation, the Contractor shall be responsible for contacting Diggers Hotline at 1-800-331-5666 or call 811.

1.709 <u>No Waiver of Legal Rights.</u> The City shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefore, from showing the true amount and character of the work performed and materials furnished by the Contractor, nor from showing that nay such measurement, estimate, or certificate is untrue or is incorrectly made, nor that the work or materials do not, in fact, conform to the contract. The City shall not be precluded or estopped, notwithstanding any such measurement, estimate or certificate and payment in accordance therewith, from recovering from the Contractor or his sureties, or both, such damage as it may sustain by reason of his failure to comply with the terms of the contract. Neither the acceptance by the City, nor any representative of the City, nor any payment for

or acceptance of the whole or any part of the work, not any extension of time, nor any possession taken by the City, shall operate as a waiver of any portion of the contract or of any power herein reserved, or of any right to damages. A waiver of any breach of the contract shall not be held to be a waiver of any other or subsequent breach.

1.710 Warranty of Title. No material, supplies or equipment to be installed or furnished under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale, lease-purchase or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor shall warrant good title to all materials, supplies, and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed, or placed thereon, by him to the City free from any claims, liens or charges. Neither the Contractor nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract shall have any right to a lien upon any improvement or appurtenance thereon.

Nothing contained in this paragraph, however, shall defect or impair the right of persons furnishing materials or labor under any law permitting such persons to look to funds due the Contractor in the hands of the City. The provisions of this paragraph shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

1.711 Jurisdiction. Any action in court against the Contractor or sureties on his bond, because of damages to property or individual by said Contractor, or his workmen, or because of the violation of any provision of the specifications, or on account of the failure of the Contractor to fully comply with this provision, shall be brought in the District Court of the State of Nebraska in and for Adams County.

1.712 Care of Work.

a. The Contractor shall be responsible for all damages to person or property that occur as a result of his fault or negligence in connection with the prosecution of the work and shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance, whether or not the same has been covered in whole or in part by payments made by the City.

b. The Contractor shall provide sufficient competent watchmen, both day and night, including Saturdays, Sundays, and holidays, from the time the work is commenced until final completion and acceptance.

c. In an emergency affecting the safety of life, limb or property, including adjoining property, the Contractor, without special instructions or authorization from the City, is authorized to act at his discretion to prevent such threatened loss or injury and he shall so act. He shall likewise act if instructed to do so by the City. Any compensation claimed by the Contractor on account of such emergency work will be determined by the City as provided in Section 1.404 hereof.

d. The Contractor shall avoid damage as a result of his operations to existing sidewalks, streets, curbs, pavements, utilities (except those which are to be replaced or removed),

adjoining property, etc., and he shall at his own expense completely repair any damage thereto caused by his operations.

e. The Contractor shall shore up, brace, underpin, secure, and protect as may be necessary, all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be in any way affected by the excavations or connected with the demolition and/or site clearance of the work embraced in this Contract. The Contractor shall be responsible for the giving of any and all required notices to any adjoining or adjacent property City, public & private utility companies, or other party before the commencement of any work. The Contractor shall indemnify and save harmless the City from any damages on account of settlements or the loss of lateral support of adjoining property and from all loss or expense and from all damages for which the City may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.

SECTION 1-8 - EXECUTION AND PROGRESS

1.801 Subletting or Assigning or Contract. The Contractor will not be permitted to sublet, assign, sell, transfer or otherwise dispose of the contract or any portion thereof, or his right, title, or interest therein; or to either legally or equitably assign any of the money payable under his contract, or his claim thereto, without the written consent of his surety and the Engineer. The Contractor will not be relieved of any responsibility through any of the above actions.

a. The Contractor shall be as fully responsible to the City 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.

b. Nothing contained in the Contract shall create any contractual relation between any subcontractors and the City.

1.802 Execution of Work. The proposal for each project will show the project period. The progress of the work shall be at a rate sufficient to complete the project within the project period. If it appears that the rate of progress is such that the project will not be completed within the project period, or if the work is not being executed in a satisfactory and workmanlike manner, the City may order the Contractor to take such steps as it considers necessary to complete the project within the period of time specified, or execute the work in a satisfactory manner.

1.803 Limitation of Operations. The Contractor shall conduct the work at all times in such a manner and in such sequence as will insure the least interference with traffic. He shall have due regard to the location of detours and to the provisions for handling traffic. He shall not open up work to the prejudice of work already started, and the Engineer may require the Contractor to finish a section on which work is in progress before work is started on any additional section. The Contractor shall so conduct his operations and maintain the work in such condition that adequate drainage shall be in effect at all times.

1.804 Methods and Equipment. The methods, equipment and appliances used shall produce a satisfactory quality of work, and shall be adequate to maintain the schedule of progress specified. Equipment used on any portion of the project shall be such that no injury to the roadway, adjacent property, or other streets will result from its use.

When the methods and equipment to be used by the Contractor in accomplishing the construction are not prescribed in the contract, the Contractor is free to use any methods or equipment that he demonstrates, to the satisfaction of the Engineer, will accomplish the contract work in conformity with the requirements of the contract.

1.805 Temporary Suspension of Work. Work shall be suspended wholly or in part when, in the opinion of the Engineer, weather or other conditions are unfavorable to its satisfactory prosecution. Work shall also be suspended at the direction of the Engineer pending settlement or disputes arising out of failure of the Contractor to comply with the provisions of the contract. Written notice of suspension of work shall be given by the Engineer. When the conditions causing suspension no longer exist, such written notice shall be given to the Contractor by the Engineer. Promptly after such written notice, the Contractor shall resume prosecution of the work as provided in Article 1.802.

1.806 Liquidated Damages. Time is an essential element of the contract, and it is important that the work be pressed vigorously to completion.

For each working day that any work shall remain uncompleted either after the end of each project period or at the end of the contract completion date, the amount per working day specified in the proposal form will be assessed, not as a penalty but as predetermined and agreed liquidated damages. The City and Contractor specifically agree that the per working day amount to be assessed as liquidated damages is fair and reasonable and not excessive. The parties further agree that said per working day amount accurately reflect the anticipated loss and inconvenience to the public and lost revenue to or use by the City due to the project not being completed by the end of the project period or the end of the contract completion date. The City will prepare and forward to the Contractor an invoice for such liquidated damages. The final payment will be withheld by the City until the invoice is paid by the Contractor.

Due account shall be taken of any adjustment of the project period or the contract completion date granted under Article 1.807.

The assessment of liquidated damages for failure to complete the work either within each project period or the contract completion date shall not constitute a waiver of the City's right to collect for any additional damages which the City may sustain by failure of the Contractor to carry out the terms of its contract.

1.807 Extension of Project Period or Contract Completion Date. An extension of the project period or contract completion date may be granted only in writing by the City for any of the following reasons:

1. Additional work resulting from a modification of the plans for the project.
2. Delays caused by the City.
3. Other reasons beyond the control of the Contractor, which in the City's judgment would justify such extension.

No extension of project period or contract completion date will be allowed for variations between contract quantities and actual quantities which cannot be predetermined and which amount to less than twenty percent (20%) of the contract quantities unless approved by the Engineer.

1.808 Abrogation. If the Contractor abandons the work under this contract, sublets it or assigns it without the consent of the city, or if he fails to give his personal attention to it, or if it is the Engineer's opinion that he has unnecessarily or unreasonably delays or neglected the work or any part of it, written notice to that effect is to be given to the Contractor by the Engineer. After such notice, no materials or equipment shall be removed from the work. If, within five (5) days thereafter, the Contractor does not take steps which, in the judgment of the Engineer, will insure the satisfactory completion of the work, then the City may declare this contract null and void and the security forfeited and may notify the Contractor in written to discontinue the work or any part of it; thereupon ceases the Contractor's right or possession of the ground and of all materials and equipment thereon. The City then, at its option, may enter upon and take possession of the work with all material, supplies, and equipment remaining thereon and by contract or otherwise, as the City may determine, may complete the work or the part of it designated, and charge the expense thereof to the Contractor using any materials or equipment found on the site. The expense so charged, together with all damages incurred, will be deducted from any funds due to become due under this contract, and should the unexpended balance of these funds be insufficient, the excess shall be at the cost of the Contractor and the sureties on the Contractor's bond. Neither completion of a part of the work not the extension for any reason of the time of the completion of the work is to be considered a waiver of this right to abrogate the contract for abandonment, delay or unsatisfactory work.

1.809 Termination of Contractor's Responsibility. The contract shall be considered completed when the work has been accepted in writing by the City. Such acceptance shall release the Contractor from all further obligation with respect thereto, except as to conditions and requirements set forth in his bond.

1.810 Assignment or Novation. The Contractor shall not assign or transfer, any of its rights, duties, benefits, obligations, liabilities, or responsibilities under this Contract without the written consent of the City, provided, however, that assignments to banks, trust companies, or other financial institutions may be made without the consent of the City. No assignment or novation of this Contract shall be valid unless the assignment or novation expressly provides that the assignment of any of the Contractor's rights or benefits under the Contract is subject to a prior lien for labor performed, services rendered, and materials, tools, and equipment supplied for the performance of the work under this Contract in favor of all persons, firms or corporations rendering such labor or services or supplying such materials, tools, or equipment.

1.811 Disputes.

a. All disputes arising under this Contract or its interpretation, whether involving law or fact or both, or extra work, and all claims for alleged breach of Contract shall within ten (10) days of commencement of the dispute be presented by the Contractor to the City for decision. All papers pertaining to claims shall be filed in quadruplicate. Such notice need not detail the amount of the claim but shall state the facts surrounding the claim in sufficient detail to identify the claim, together with its character and scope. In the meantime, the Contractor shall proceed with the work as directed. Any claim not presented within the time limit specified in this paragraph shall be deemed to have been waived, except if the claim is of a continuing character and notice of the claim is not given within ten (10) days of its commencement, the claim will be considered only for a period commencing ten (10) days prior to the receipt by the City of notice thereof.

b. The Contractor shall submit in detail his claim and his proof thereof. Each decision by the governing body of the City will be in writing and will be mailed to the Contractor by registered or certified mail, return receipt requested, directed to his last known address.

c. If the Contractor does not agree with any decision of the City, he shall in no case allow the dispute to delay the work but shall notify the City promptly that he is proceeding with the work under protest and he may then accept the matter in question from the final release.

SECTION 1-9 - MEASUREMENT AND PAYMENT

1.901 Payments. The City, at its discretion, may include in such monthly estimates payments for materials that will eventually be incorporated in the project, provided that such materials are suitably stored on the site of the project at the time of preparing estimates for payment. Such payment is to be based upon the estimated value thereof as ascertained by the Engineer. Such material when so paid for by the City shall not be removed from the project without consent of the City and, in case of default on the part of the Contractor, the City may use or cause to be used by others these materials in construction of the project.

The City will retain five percent (5%) of the total contract amount for all work completed.

Payment of the retainage will be made within forty-five (45) days after project is substantially complete, provided the Contractor submits a Letter of Credit for 125% of the uncompleted work. Substantial completion will include water mains passing biological testing and placed into service. Sewer mains shall pass pressure testing and be televised with receipt of the inspection report.

The bid proposal price sheets include any and all work for each project. Any requirement shown in the drawings, but not listed separately in the proposal price sheets, are considered subsidiary to the work. This includes but is not limited to abandonments of existing utilities and any potholing required for utility locates prior to boring.

1.902 Payments Withheld. The City may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate to such extent as may be necessary to protect itself from loss on account of:

1. Defective work not remedied.
2. Claims filed or reasonable evidence indicating probable filing of claims.
3. Failure of the Contractor to make payments properly to subcontractors for material or labor.
4. A reasonable doubt that the contract can be completed for the balance then unpaid.
5. Damage to another Contractor.

6. Damage to public or private property.

When the above grounds are removed, payment shall be made for amounts withheld because of them.

1.903 Acceptance, Final Payment, and Release of Liability. If final inspection reveals that all details of the work have been completed to his satisfaction, the Engineer shall tentatively accept the work, in writing, relieving the Contractor of further responsibility for the care and maintenance of the completed work and, provided that all equipment and materials have been removed from the right-of- way, shall also relieve the Contractor of further public liability. As soon as possible after tentative acceptance of the work, the Engineer shall measure the completed work and compute the quantities of work for which payment is to be made. Before final settlement is made, the City shall be satisfied with the completed work. When the Engineer is satisfied that all items of the work have been found to be consistent with the terms of the contract and specifications, a final estimate, including the retained percentage due the Contractor, shall be released for payment. Release of the final estimate shall constitute formal acceptance of the work. Acceptance by the Contractor of the final payment shall constitute release of the City and each of its officers and agents from any additional claim or liability hereunder for any act or negligence of the City or of any other person.

All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

1.904 Payment for Extra Work. The Contractor will receive and accept payment for work performed under this contract as follows:

a. Work Performed as Stipulated in the Contract. For all items of work performed which are covered by definite unit prices or lump sum amounts specified in the contract, the Contractor shall receive and accept compensation at the rate specified in the contract.

b. Extra Work. Extra work ordered by the Engineer, of a quality or class not covered by the contract, will be paid for at an agreed price. For extra work ordered by the Engineer and performed on an agreed price basis, the Engineer and the Contractor shall enter into a written agreement before such work is undertaken. This agreement shall describe the extra work that is to be done and shall specify the agreed price or prices therefore.

END OF SECTION

SECTION 2
SPECIAL PROVISIONS

SECTION 2-0 - GENERAL

2.001 General Provisions. The general conditions are general in scope and may refer to conditions not encountered on the work covered by this contract. Any provisions of the General Provisions which pertains to a nonexistent condition and is not applicable to the work to be performed hereunder, or which conflicts with any provision of the Special Provisions shall have no meaning to the contract and shall be disregarded.

2.002 Liquidated Damages. It is understood and agreed that time is of the essence of the contract. Should the Contractor fail either to perform the work within any project time period or to complete the contract by the contract completion date as defined in the proposal, the Contractor shall pay to the City liquidated damages as identified in the proposal, unless extension of time granted by the City specifically provides for the waiving of liquidated damages (see 1.806, 1.807) for the time extension granted.

2.003 Maintenance of Traffic. The Contractor shall conduct his work so as to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct or close roads, driveways and walks, whether public or private, the Contractor shall, at his own expense, provide and maintain suitable and safe bridges, detours, or other temporary expedients for the accommodation of public and private travel, and shall give reasonable notice to owners of private drives before interfering with them. Such maintenance of travel will not be required when the Contractor has obtained permission from the owner or tenant or private property, or from the authority having jurisdiction over public property involved, to obstruct traffic at the designed area.

2.004 Provisions for Traffic Control and/or Barricading. The Contractor shall provide barricades and maintain a means of traffic control applicable to work site conditions. The means of traffic control and barricade(s) type(s) shall be approved by City of Hastings inspector and by appropriate agency on which work is occurring, being either or combination of city, county, or state right-of-way.

The Contractor shall provide all approved barricades with lights and furnish flagmen as required. Contractor shall provide daily maintenance on all barricades, flashers, etc., during course of construction. A person will be designated by Contractor that is in their employment to be responsible for daily maintenance and shall be available 24 hours a day, seven days a week and will have a telephone number given to City of Hastings and appropriate governing agency on whose right-of-way project is taking place.

2.005 Street Closing. In the event it is deemed necessary for the Contractor to close any streets during the execution of his work, the Contractor shall notify the owner of such street closing 48 hours in advance, prior to any street closing due to open cut street crossing, and shall notify all vital departments to include police, fire, ambulance, sheriff, and City Engineer Departments.

2.006 Dust Control. The Contractor shall be required to keep dusty conditions, caused by his operations, from being a source of complaint by adjacent property owners by watering down his haul routes or by other methods approved by the Engineer.

2.007 Removal of Trees, Hedges, Shrubs, and/or Fences. The Contractor shall sufficiently plan ahead to notify property owner(s) of any obstacles in the way of proposed construction that will have to be removed prior to construction by property owners if they desire to save such.

Clearing, grubbing, and removing all trees, brush, shrubs, debris and vegetation within the plan indicated area are to be disposed of by hauling offsite to an approved disposal area.

a. Clearing: includes clearing and removing all tress within the indicated area, cutting and removal of all brush, shrubs, debris, and vegetation flush to the ground surface.
b. Grubbing work shall include the complete removal of stumps and roots approximately 2 inches in diameter. Grubbing shall extend to a minimum depth of 6 inches below the ground surface.

All associated permits and fees are the responsibility of the contractor. The payment for removal of said items will be on proposal sheet

The Contractor will be required to reimburse the public for any damage to trees which is not authorized by City of Hastings.

2.008 Shutdown Valve Operation. Shutdowns will be made only by Hastings Utilities Department personnel. In the event that an emergency condition warrants, the Contractor shall take direct action to make shutdown but must notify Hastings Utilities immediately and remain on worksite to demonstrate what has taken place to Hastings Utilities personnel.

All shutdowns, unless emergency, will be scheduled in advance and shall be the responsibility of the Contractor to notify residences and/or businesses effected and give estimated time of return of service.

2.009 Gravel, Rock Replacement. Contractor to replace gravel and rock in areas where existing on job site that have been removed or disturbed by work entailed in contract or disturbed by contractor for his convenience by his contractor methods. Applications rate shall be determined on job site and to satisfaction of City of Hastings engineer and/or inspector.

The following application rates shall be used unless otherwise directed and/or noted on the drawings.

Location	Quantity
Graveled County Roadways	3" Nominal thickness + 24 feet wide
Graveled City Streets	3" Nominal thickness + 24 feet wide
Graveled Driveways	3" Nominal thickness + width of driveway
Limestone Driveways	3" Nominal thickness + width of driveway

2.010 Concrete. All concrete being used to replace existing concrete shall be Portland Cement with requirements meeting the standard specifications as set forth in State of Nebraska Department of Roads (most current version) standard specification for highway construction, and also, City of Hastings, Hastings, Nebraska, current specifications for Portland Cement Concrete Pavement.

Concrete Thickness and Strength Schedule

Concrete Use:	Concrete Class	Thickness	Strength 28 Days
Manhole Collar	47B, 47B-PHE	10”	3500 PSI
Parking Lot	47B	8”	3500 PSI

2.011 Permits. The Contractor shall obtain a constructor’s license from the City of Hastings Permits Office, located at The City Building, 220 N. Hastings Avenue, Hastings, Nebraska. This permit will allow the Contractor to install water and sewer service connections as noted in Specification 3.114 and 4.108. The Contractor shall also obtain any additional permits required by the Permits Office for the installation of the individual services.

2.012 Working Hours. Normal working hours will be considered to be from 8:00 a.m. to 5:00 p.m., Monday through Friday (holidays excepted: New Year’s Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Veteran’s Day, Thanksgiving, Friday after Thanksgiving, ½ day Christmas Eve, and Christmas Day). Any Contractor desiring other working hours must take exception to specifications for consideration by City of Hastings. Any exception must be approved or negotiated to mutual acceptance by Contractor and City of Hastings, final acceptance will be granted in writing.

2.013 Removal and Replacement of Property Stakes. If it is necessary to remove any property corners or markers during construction operations, the Contractor shall notify the Engineer so that the Engineer can establish reference ties. Any markers removed without notice to the Engineer shall be replaced at the Contractor's expense in accordance with the proper land surveying techniques.

2.014 Appearance of Construction Area and Storage Site. Contractor will be required to keep the construction area in a neat and orderly fashion that would be considered reasonable in regard to work being completed.

Where sidewalks, driveways, etc., exist, Contractor shall keep them free from debris and will be swept off at the end of the construction day. Storage site will be kept in a neat and orderly manner.

No dirt will be allowed to be piled in the street overnight. Dirt piles on the terrace (or alternate locations) must meet all storm water management requirements.

Where Contractor will have a storage site for materials, equipment, etc., on property owned by City, it shall be kept in a neat and orderly manner, free from debris, accumulation of unused materials, etc. Any area used for storage, etc., shall be properly served from the public by temporary fencing if not within a fenced area.

Debris from job site must be removed same day as taken from street, yard, etc. Piling up of these materials, (i.e., concrete, brush, trees, tree limbs) will not be allowed on site.

2.015 Construction Progress Meetings. Construction progress meetings will be held at a predetermined time each week, time to be chosen at the preconstruction conference. City of Hastings will have in attendance the Project Engineer and Inspector. Contractor shall have Project Superintendent and job foreman present.

2.016 Public Information Meeting. A meeting with the residences and/or business owners will be held prior to commencing construction. City of Hastings will set the time, place and date of said meeting and will notify all persons in the project area of such meeting. Contractor and his job foreman will be required to attend.

2.017 Contractor - Work Location. Contractor will be required to finish work on each project before moving to another project or have personnel enough to maintain crews on both job sites.

2.018 Final Cleaning Up. Upon completion of the work and before acceptance and final payment, the Contractor shall clean the street, borrow pits and all ground occupied by him in connection with the work of all rubbish, excess materials, false work, temporary structures, and equipment; all parts of the work shall be left in a neat and presentable condition.

2.019 Preconstruction Conference. A preconstruction conference will be held at City of Hastings offices with the contractor owner, superintendent, and job foreman prior to construction and all other city, county, state, and other necessary agencies will be notified of this meeting also.

Contractor shall submit to City a detailed construction progress schedule with major milestones prior to preconstruction meeting.

A preconstruction conference shall be arranged between the Director of Engineering and the Contractor prior to beginning construction. At this meeting the following items shall be addressed.

a. Work by others. Coordination of work to be performed by subcontractors and other contractors performing work related to this project.

b. Availability of land. The site and use of adjacent land shall be reviewed.

c. Project Engineer. The project engineer will be assigned by the Director of Engineering. The Contractor shall designate a construction foreman that will be responsible for communication with the project engineer.

d. Change orders. Procedures for implementing change orders shall be reviewed.

e. Tests and inspection. As described within these documents the Contractor shall perform all necessary tests and inspections. Any documented results shall be submitted to the project engineer. At all times the project engineer shall be allowed to inspect the work being performed.

f. Safety and protection. The Contractor shall be responsible for all safety and necessary protection of all persons in attendance of the project site. The project engineer and other observers shall adhere to all safety precautions deemed necessary by the Contractor.

g. Final inspection and payment. Final inspection shall be performed by the Director of Engineering and his representatives. When all aspects of this project, as described within these documents have been met, the Contractor may submit for final payment.

h. Site security. The contractor shall erect a construction barrier around the project site. The barrier shall consists of a temporary fence with appropriate warning signs.

i. Shop drawings, submittals. The required list of submittals shall be reviewed.

j. Pipe Cleaning Video: When the project involves water main installation, at the end of the pre-construction conference, an AWWA instructional video on the proper cleaning and installation of water mains shall be watched by the Contractor (Owner); the Contractor's Project Foreman; Project Inspector (HU); Water Department Superintendent (HU); and one representative of HU Engineering. At the end of the video, the participants shall review the requirements for pipe installation and cleaning as noted in the specifications and on the drawings.

2.020 Customer Relations. Contractor shall exert all reasonable efforts to maintain good will for the benefit of City of Hastings with the landowners tenants, and lessees along the right-of-way and with the general public. The Contractor will not be allowed to start construction until he has adequate manpower and material to allow the job to progress smoothly and be complete in a reasonable amount of time. City of Hastings will have the authority to remove workers from the job site who exhibit horseplay and foul language to the public.

2.021 Operations of the Contractor. The Contractor shall confine his operations exclusively to easements and public right-of-way. If the Contractor desires to operate equipment or store materials on private property that does not have a utility easement, he must obtain permission from the property owner. Prior to release of the payment retention by the City of Hastings, the Contractor must restore the private property to original condition. If the landowner is not satisfied with the restoration, the City of Hastings will continue to hold the appropriate retention.

The quantities for seeding and sodding in the proposal include only easements and right-of-way. Any seeding and sodding required to restore areas where the Contractor has operated on private property without easements will be the responsibility of the Contractor.

SECTION 2-1 - METHOD OF MEASUREMENT AND BASIS OF PAYMENT

2.100 Storm Water Permit Plan. City of Hastings engineering staff will acquire a Storm Water Permit Plan before construction is started. The contractor is responsible for implementing such plan.

Rev 9-17-14 **2.101 General Public Safety.** Security fencing must be placed two feet (2') from the edge of any open excavation. Fencing shall consist of four foot (4') high orange woven safety fence (snow fence) secured by steel T posts. All excavations next to a street, or in a street, must the latest revisions of the Manual for Uniform Traffic Control Devices and City of Hastings Requirements.

2.102 Gravel Surfacing. The resurfacing of gravel driveways, streets, access roads, county roadways, etc., shall include but not limited to sub grade preparation, sub grade compaction, sub grade trimming, placement, grading, transportation, materials, labor, and all other work and/or materials necessary to provide gravel surfacing. The Contractor shall replace all gravel surfacing lost due to the installation of utilities. The Contractor shall be reimbursed at a cubic yard rate as noted on the proposal. Quantities for gravel surfacing shall be computed using the average width of the resurfacing times the length and nominal thickness required. A cubic yard quantity shall be calculated. Weight tickets shall be provided for all gravel surfacing installed. Please also note any temporary gravel surfacing shall be considered subsidiary to the construction.

END OF SECTION

SECTION 3
SANITARY SEWERS TECHNICAL SPECIFICATION
CITY OF HASTINGS

SECTION 3-0 - SCOPE OF WORK

3.001 The work covered by this section of the specifications consists of furnishing all labor, plant, equipment, appliances and materials, and performing all operations necessary to construct and complete sanitary sewers and appurtenances in strict accordance with these specifications, the applicable drawings, and subject to the terms and conditions of the contract.

Section 3-1 - Materials

3.101 Polyvinyl Chloride Gravity Sewer Pipe and Fittings. All polyvinyl chloride gravity sewer pipe and fittings shall comply with the requirements and specifications of the latest revision of the following standards:

1. ASTM D-3034 SDR26 sewer pipe conforming to ASTM D-3034 for 8" (200 mm) through 15" (380 mm).

2. ASTM F-679 for nominal pipe size 18" (460 mm) through 36" (910 mm).

3. ASTM F-794 pipe stiffness – 46 PSI 4" (100 mm) through 36" (910 mm).

4. ASTM F – 1803 pipe stiffness – 46 PSI 18” (450mm) through 36” (910 mm).

The PVC pipe and fittings shall be joined with integral bell and spigot type rubber gasketed joint. All PVC joints shall comply with the requirements and specifications of the latest revision of ASTM F-477, "elastomeric gaskets for joining plastic pipe". All pipe shall be made of PVC plastic having a cell classification of 12454-C, or 12364-C as defined by ASTM D-1784. The fittings shall be made of P.V.C. plastic having a cell classification of 12454-C, or 12364-C as defined by ASTM D-1784.

All PVC sanitary sewer pipe shall be green in color.

3.102 Flexible Pipe Coupling. Flexible couplings shall comply to ASTM D 5926. Properly select the appropriate coupler based on manufacturer’s intended use. Encase flexible couplers in concrete or utilize strong back couplers (stainless steel stiffening band) with proper backfill.

3.103 Precast Manholes.

a. Precast Manhole Sections conforming to ASTM C478. Concrete used in the construction of manholes shall utilize an "Az" life factor design. The minimum cover over the inner reinforcing steel (z), measured from the steel surface to the inside of the pipe wall, shall be such that the product of the Alkalinity (A) of the cover concrete, expressed as calcium carbonate equivalent, multiplied by the minimum cover in inches (z) shall be no less than 0.50. In achieving the design Az factor, the alkalinity content of the components and the thickness of steel cover may both be varied, provided that the minimum provisions of ASTM C76 are met: and provided that the actual inside diameter of the section is not less than the nominal inside diameter (size) of section.

b. Top Sections consist of eccentric cone or flat tops with adjusting rings. Flat tops have a minimum thickness requirement of 8 inches.
c. Joint Gaskets constructed of rubber conforming to ASTM C443 and suitable up to 13 psig.
d. Joint Sealant consisting of butyl rubber conforming to ASTM C990 is required where gaskets are not utilized.
e. Concrete Adjusting Ring class H-20 with interior diameter of 24" minimum height of 4 inch required and maximum of 12 inches. Required when manholes are installed under roadway.
f. Precast Base Sections require pipe to manhole connectors conforming to ASTM C923.

3.104 Manhole Base. Manhole bases are installed in place and constructed integral with the bottom manhole section. The base shall be a minimum of 5" thick reinforced concrete with #4 (1/2") grade 60 bars on 12" centers each way. The base shall be set upon 12" thick, 1-1/2" crushed limestone compacted subgrade base. The pipe penetration shall be properly encased in concrete both inside and outside of the manhole. The invert shall be properly grouted for the required flow path.

3.105 Manhole Drop. Constructed wherever shown on the plans or whenever the invert of the entering sewer is 24 inches or more above the invert of the manhole. The drop will consist of size-on-size pipe, (1) tee fitting and (1) 90-degree elbow. Drop to be constructed outside of the manhole encased in formed concrete. Refer to standard details for more information.

3.106 Manhole Steps. Manhole steps shall not be installed.

3.107 Sanitary Sewer Main Cleanout. Construct of same size and material specification as the main it is installed on. Cleanout consists of a wye fitting with riser with threaded adaptor and plug. Protect cleanout with a cast iron ring and cover with concrete collar. Ring and cover conforming to ASTM A-48 constructed of gray cast iron Class 35B. Minimum clear opening of 10-5/8 inches and a minimum height of 6-inches weighing no less than 60 pounds.

3.108 Manhole Rings and Covers. Constructed to ASTM A48 standard and shall be H-20 rated Class 35B gray cast iron machined ring and cover with gasket. The ring and cover shall have a clear opening of 24-inches and weigh no less than 380 pounds. It shall contain a pick hole and have a "SEWER" marking casted into the iron.

3.109 Concrete Anchors. Heavy-duty anchors designed for fastening into concrete that are ½" diameter by 4-1/4" long hex nut expansion wedge anchors. Anchor manhole ring with (4) equally spaced anchors.

3.110 Grout. Grout where required shall consist of equal parts of sand and cement with sufficient water to produce the proper consistency.

3.111 Concrete. 47B Mix required unless specified on plans. Concrete mix shall comply with the Nebraska Department of Roads 47-B Mix design utilizing six and one half sack of cement (4000psi compressive strength at 28 days).

3.112 Concrete Reinforcement. Grade 60 steel rebar in various diameters.

3.113 Flowable Fill. Ready-mix product comprised of sand, cement, fly ash, water, and air entrainment per the following table:

Table 3.113

Flowable Fill Mix Design	
Sand	3028 Lbs.
Cement	65 Lbs.
Fly Ash	200 Lbs.
Water	40 Gal.
Air Entrainment	3-1/2 Oz.

3.114 Sanitary Sewer Services.

A. Gravity Service

1. 4" (100 mm) service pipe shall be utilized on all service connections unless otherwise specified.

2. Main Size x 4" (100 mm) service tees shall be utilized unless otherwise specified.

3. Sanitary sewer services shall be PVC. PVC sewer pipe and fittings shall be SDR26 ASTM D3034 or Sch 40 PVC for 4" (100 mm) and 6" (150 mm) sizes. Provide SDR35 ASTM D3034 or heavier for 8" (200 mm) pipe. All PVC fittings shall comply with this specification. All joints shall be gasproof, watertight, and rootproof. All PVC sewer service pipe and fittings shall be surrounded with a six inch (6") (150 mm) gravel bedding as specified. When required provide ductile iron pipe and fittings.

4. All sewer services shall be constructed and installed by the Contractor as indicated on the drawings. Any work to be done on the customer side of the property line, except for connecting to existing services, shall be done by a licensed plumber. All service line work to be completed between the main and the property line may be done without the services of a licensed plumber. This work shall be deemed to be done by a sewer main Contractor. All service line work to be done by a sewer main Contractor shall be limited to the work as indicated on the drawings and within these contract documents, or as directed by the Engineer.

B. Pressurized Service

1. Pipe and Fittings:

   a. Pressure rating minimum of 200 PSI.

   b. Material: PVC SDR 21 or Sch. 40 conforming to ASTM D1784

2. Testing: Hydrostatic Pressure Test in accordance with AWWA C605-13 or latest revision.

a. Test duration of 2 hour at a test pressure of 1.5 times the sustained working pressure with maximum pressure drop of 2psi.

3.114 Submittals. The Contractor shall provide to the Engineer the following submittals, shop drawings, certifications and other related documents for review and approval:

1) Provide catalog cuts showing weights, dimension and sizes of all pipe materials, fittings, glands, bolts, adaptors, etc. to be utilized on this project.

2) Provide catalog cuts showing weights, dimensions and sizes of all manholes, manhole steps, ring and cover to be utilized on this project.

4) Provide sieve analysis of all bedding materials.

5) Provide catalog cuts of sealants used to seal profile pipe with approved manufacturer procedures.

SECTION 3-2 - CONSTRUCTION METHODS

3.201 Excavation. The ditch shall be excavated along the lines designated by the Engineer and to the depth given by him. The Contractor shall furnish, at his own expense, all planks, stakes, spikes, grade boards, and twine that may be required. The Engineer shall have the right to limit the amount of trench that may be opened in advance of the line of work. Should the trench be excavated to a greater depth than that given by the Engineer, the Contractor shall refill to grade, at his own expense, with good, well-tamped material. The width of the trench shall be approximately one (1) foot (300 mm) greater in the clear than the external diameter of the pipe to be laid therein. Trenches, where required, shall be properly sheeted and braced. The bottom of the trench under each pipe shall be shaped to receive the bottom quadrant of the pipe barrel. Bell holes shall be excavated so that, after placement, only the barrel of the pipe receives bearing pressure from the trench bottom. Excavation around existing utilities and structures shall be limited to minimum invasive practices such as utilization of properly sized trench safety equipment in-leu of benching.

Whenever wet or unstable soil that is incapable of properly supporting the pipe as determined by the Engineer, is encountered in the trench bottom, such soil shall be removed to the depth and length determined by the Engineer, and the trench backfilled to grade with suitable in-situ soil.

All grading in the vicinity of trench excavation shall be controlled to prevent surface water from flowing into the trench. Any water accumulating in the trench shall be removed by pumping or other approved method. Material excavated from the trenches shall be stacked in an orderly manner a sufficient distance back from edge of trenches to avoid overloading and prevent slides or cave-ins. Materials unsuitable for backfilling shall be wasted by the Contractor as directed by the Engineer.

A minimum of one (1) foot (300 mm) of topsoil (unless otherwise noted on the plans) shall be removed in any and all area covered by vegetation. This topsoil shall be stockpiled separately from the material removed from the remainder of the trench. After the pipe is installed and the trench backfilled to an elevation one (1) foot (300 mm) (unless otherwise noted on the plans) below grade, the topsoil shall be replaced and compacted as previously described.

Excavation will not be classified. Whatever material is encountered shall be excavated to the proper grades and, if in any locations such material is not sufficient to provide a uniform, even

bed for the pipe, the trench shall be excavated at least three (3) inches (76 mm) deeper than the grade at the bottom of the pipe and the space thus excavated shall be refilled with earth or sand and thoroughly compacted. Before any excavation is begun, the Contractor shall contact Diggers Hotline at 1-800-331-5666.

3.202 Protection of Existing Utilities. The accuracy of location of existing underground utilities as shown on the plans is not guaranteed. It shall be the duty of the Contractor to locate these utilities in advance of excavation and to protect same from damage after uncovering. No house service lines are shown on the plans. The Contractor shall contact the owners of the utilities for assistance in locating these service lines. Any expense incurred by reason of damaged or broken lines shall be the responsibility of the Contractor.

The Contractor shall not begin any excavation until the utility locate is completed. Diggers Hotline can be found online or by phone at 811 or 800-331-5666.

3.203 Tunneling. Tunneling, when necessary, shall be done under the supervision of the Engineer. Jacking or boring may be permitted where indicated in the plans. Before proceeding with boring or jacking, the Contractor shall submit to the Engineer for his approval a plan sketch showing the frame, bracing, pit details, etc. Whenever a steel casing is required, joints shall be welded with full strength welds. The Contractor shall maintain proper joint alignment and use full penetration welds.

3.204 Pipe Laying and Jointing. The placement and embedment of the sewer pipe shall comply with the appropriate specifications as noted below:

1) All polyvinyl chloride sewer pipe shall comply with the latest revision of ASTM D-2321.

The installation of all sewer pipes shall also comply with the following:

Pipe shall be protected at all times against impact shocks and free fall. Laying of pipe in finished trenches shall be commenced at the lowest point, with the spigot ends on bell-and-spigot pipe and tongue ends on tongue-and-groove pipe pointing in the direction of the flow. Pipe shall be set firmly to line and grade, and preparatory to making pipe joints, all surfaces of the pipe to be jointed shall be cleaned and dried. Joints shall be made tight to meet requirements of this specification.

Sewer trenches shall be kept free from water by a method approved by the Engineer. The Contractor shall not pump sewage into a street or pump to a storm sewer unless authorized by the Engineer. Sanitary sewage must be returned to the sanitary sewer by means of pipe and hoses unless it is impossible to do so. Then disposal must be approved by the Engineer

When spiral or longitudinal closed profile pipe is provided, the Contractor shall seal the ends of all cuts of the closed profile pipe with a manufactured approved sealant and adhere to manufacturer's written procedures for sealing the open space. The closed profile pipe shall be installed in all manholes in such a manner the cut ends of the pipe are permanently sealed. In addition, the Contractor shall permanently seal all closed profile openings at a location 2' - 3' outside of the manhole. Any time a cut pipe is utilized, the ends shall be sealed and a second seal placed 2' - 4' away from the cut end.

3.205 Manhole Construction

All manholes shall be constructed as indicated on the drawings. When installing manholes on sewers that are in service, provide the necessary means to avoid service interruption. The contractor shall insure that all elevations, as noted on the plans, are strictly adhered to. Any deviation of elevations shall be brought to the immediate attention of the Engineer or his representative. All manholes shall be installed straight and plum. All pick openings and pipe entrances shall be fully grouted and finished in a workman like manner. Any through piping shall have the top cut out of the pipe and the floor of the manhole sloping outward from the opening in pipe to the walls.

3.206 Pipe Bedding. All sewer main shall be installed using bedding detail III or IV as noted on special plan detail sheets. The space between the pipe and sides of the excavation shall be filled and compacted with granular bedding as specified. The bedding material shall extend as a minimum 12 inches (300 mm) above the top of all PVC and VCP sewer mains before the trench box is moved. A bench shall be constructed to allow the trench box to set above the top of the sewer main.

If other construction practice is desired, it shall be submitted in writing to the Engineer for review and approval. In the event a different construction practice is desired, the procedure shall be reviewed with respect to trench width, soil loads, and live loads such as H-20 traffic loading.

VCP sewer pipe shall adhere to bedding detail III as per ASTM C-12 with appropriate maximum depth of installation.

PVC sewer pipe shall adhere to bedding detail III and have a minimum modulus of soil reaction (E') of 100 PSI or greater, and have a maximum depth for deflections of 5% or less, and comply with applicable requirements set forth in Unibell Recommended Standard UNI-B-5 latest revision.

DIP shall adhere to bedding detail IV with appropriate pressure class and associated maximum depth of installation, and comply with latest revision of AWWA C150/A21.50 and applicable sections of AWWA C600-87.

The granular bedding shall have the following gradation:

Sieve Size	Minimum % Retained on Sieve	Range
1.0 inch	-0-	
No. 4	34%	± 5%
No. 10	63%	± 10%
No. 30	88%	± 5%
No. 200	98.5%	± 1.5%

Note: Granular bedding is similar to NDOR Type ABX sand and gravel aggregate

The granular bedding shall be placed around all VCP and compacted to a minimum of 90% optimum proctor density for depths of 4 feet to 30 feet. Trench width shall adhere to 118 MCP technical bulletin (118 Sheet 2 of 2).

The granular bedding for PVC pipe shall be compacted to a maximum of 80% optimum proctor density for depth 4 feet to 16 feet and 90% optimum proctor density for depths 17 feet to 30 feet.

The granular bedding for DIP shall be compacted to 80% of optimum proctor density for depths up to 30 feet.

Trench width shall be kept to a minimum and as noted within these specifications or as noted in the drawings.

If in the event the bedding material cannot be properly compacted, then the Contractor shall provide a coarse aggregate bedding complying with the following gradation.

Sieve Size	Minimum % Retained on Sieve	Range
1 1/2 inch	-0-	
3/4 inch	20%	± 5%
3/8 inch	47%	± 10%
No. 10	80%	± 10%
No. 200	95%	± 5%

Note: Coarse aggregate bedding is similar to a NDOR crushed rock base course material.

3.207 Trench Backfilling. Trench backfill shall conform to following:

1) All sewer pipe shall be bedded as noted above. Bedding process shall be accomplished by introducing backfill material in layers not to exceed 6 inches in depth and compacted.

2) Upon bedding of pipe, fill may be introduced suitable to the type of method that will be used for compaction, i.e., compactor, hydraulic vibrator, etc. Lift thickness will be determined in field by inspector and job foreman with a maximum loose lift thickness of 12 inches. Once backfill has reached a depth of 5’ below final grade all backfill will be tamped with a motorized vibratory sheepsfoot, to provide a consistent compacted trench.

3) Compaction tests to be taken 7’ to 8’ below top of trench or beginning 2-3’ to 4’ above top of pipe, which ever is deeper, then taken in 2’ to 3’ increments, with final test taken 1’ below surface at final grade. Tests to be taken at 50 to 100 lineal foot (15 M to 30 M) of trench, to be determined on job site. Tests to be taken around manholes on all four sides 4’ to 5’ out from manholes at same depths as tests taken in trench. Contractor will be required to make excavation for tests.

4) Test results for compaction shall meet or exceed following:

a. 95% standard proctor density for terraces.

b. 98% standard proctor density for driveways, sidewalks, and streets.

c. Assumption that moisture content (±) 3% of optimum failure of test to reach these minimum results will require recompaction by Contractor.

5) No unsuitable material will be allowed in backfilling, i.e., rock, saturated soils, excessively dry soils, concrete, grasses, etc. Contractor will be required to remove such material from the job site and replace with adequate amounts of approved material. The Contractor shall supply suitable backfill material from an approved borrow site acceptable to the Engineer at the unit price in the proposal.

   Any backfill found unstable because of plastic soils will have to be replaced by the Contractor with suitable material. No additional compensation will be granted.

6) Water settling will not be permitted.

7) The select bedding material shall be granular fill as noted in specification 3.206.

8) If proper compaction requires additional soil to be brought to the site by the Contractor, all expenses for this additional soil shall be considered subsidiary to the pipe installation.

9) The Contractor shall hand tamp around all manholes with hand tampers or pad tampers "Jumping Jacks" to insure proper compaction.

10) In the event settlement of any backfill associated with the project is encountered, the Engineer shall notify the Contractor in writing to repair all defects, including settlement and associated street repair, if it is discovered within the three (3) year maintenance period. No extra monies will be paid for repairs caused by settlement of the backfill.

3.208 Trench Wall Support. All trenches shall be braced or sheeted as to local soil conditions dictate and in full observation of OSHA, as well as local, State of Nebraska, and other Federal requirements. There shall be sufficient tamped cover over pipe to protect in removal of shoring material.

A full depth trench box shall be used for all sewer main installations. At the Contractor's discretion, wood or steel shoring can be used. All wood or steel shoring shall be cut off at the top of the sewer main and the lower section left in place.

3.209 Acceptance Testing. Upon completion of sewers, each pipe line and manhole will be lamped, checked for flow and freedom from accumulated earth or debris, and checked for the general requirements of the specifications. The Contractor shall furnish such tools, hose and other equipment necessary for making such tests, and shall be present during the inspection to note any deficiencies that may exist. Before final acceptance, all sewers shall be clean, shall comply with the specifications and all contract documents and shall be acceptable to the Engineer and municipal authorities. City of Hastings Engineering Inspector or representative is to be present to witness all testing.

3.210 Exfiltration Test. Exfiltration test of the sewer lines shall be conducted upon completion of a section of wastewater line in accordance with ASTM F1417 and by the following method as directed by the Engineer:

After a manhole to manhole section of wastewater line has been backfilled and cleaned, pneumatic plugs shall be placed in the line at each manhole and inflated to 25 psig. Low pressure air shall be introduced into this sealed line until the internal air pressure reaches 4 psig greater than the average back pressure of any ground water that may be over the pipe. At least two minutes shall be allowed for the air pressure to stabilize.

After the stabilization period (3.5 psig minimum pressure in the pipe), the air supply shall be disconnected. The portion of line being tested shall be termed "Acceptable" if the time required in minutes for the pressure to decrease from 3.5 psig to 2.5 psig (greater than the average back pressure of any ground water that may be over the pipe) shall not be less than the time shown for the given diameters in Table 1 below:

Table 1: Sewer Main Low Pressure Test per ASTM F1417

PVC Pipe Diameter in Inches

Pipe Diameter Inches	Minimum Time, Minutes:Seconds	Length for Minimum Time, Ft.	Time for Longer Length:Seconds
8	7:34	298	1.520 L
10	9:26	239	2.374 L
12	11:20	199	3.418 L
15	14:10	159	5.342 L
18	17:00	133	7.692 L
21	19:50	114	10.470 L
24	22:40	99	13.674 L
27	25:30	88	17.306 L
30	28:20	80	21.366 L
33	31:10	72	25.852 L
36	34:00	66	30.768 L

The following alternative method of exfiltration may be used with prior approval of the Engineer:

Plug the lower end of a section of wastewater line and fill with water. Let the water stand for approximately four hours and then fill the line again. After the line has reached its maximum absorption, refill to the original depth; after one hour, record the new level of water in the manhole and convert to gallons; and then subtract the actual manhole loss previously determined for one hour to set actual line loss. Pipe leakage allowance shall be 100 gallons per inch diameter per mile per day (1 liter per mm diameter per Meter per day).

3.211 Television Inspection – Sanitary Sewer Lines. Television (TV) inspection recorded digitally on DVD media shall be required on completion of all sewer main lines. The TV inspection shall include on screen measurement along the pipe being inspected – starting with

zero at the first manhole of any run of pipe being inspected. In addition to the DVD, a written report shall be provided noting defects, service connection(s), sags, and other anomalies. The written report shall also denote the time, date, starting manhole number and station, direction of camera travel, and ending manhole number and station.

The Contractor shall provide a DVD and written report of the inspection. Video (VHS) will not be permitted.

Contractor shall furnish the name of firm proposed to do the television (TV) inspection on the subcontractor designation sheet. One copy of the DVD shall be given to City of Hastings for their files. Cost of TV inspection and DVD will be subsidiary to bid. Contractor will not be paid retention until television inspection is received.

3.212 Separation from Water Mains.

Horizontal Separation. Whenever possible, sewers should be laid at least ten (10) feet (3 M), horizontally), from any existing or proposed water main. Following should be true if conditions prevent a lateral separation of ten (10) feet (3 M) to a water main if:

1) It is laid in a separate trench.
2) It is laid in the same trench with the water mains 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 eighteen (18) inches (450 mm) below the invert of the water main.

Vertical Separation. Whenever sewers must cross under water mains, the sewer shall be laid at such an elevation that the top of the sewer is at least eighteen (18) inches (450 mm) below the bottom of the water main. When the elevation of the sewer cannot be buried to meet the above requirement, the water main shall be relocated to provide this separation or reconstructed with slip-on or mechanical-joint cast iron pipe, for a distance of ten (10) feet (3 M) on each side of the sewer. One full length of water main should be centered over the sewer so that both joints will be as far from the sewer as possible.

Special Conditions. When it is impossible to obtain proper horizontal and vertical separation as stipulated above, the water main should be constructed of slip-on or mechanical-joint cast iron pipe, and the sewer constructed of mechanical-joint cast-iron and both services should be pressure tested to assure water-tightness.

3.213 Deflection Testing. Deflection tests shall be performed on all flexible pipe (i.e., P.V.C.). The test shall be conducted after the final backfill has been in place at least 30 days to permit stabilization of the soil-pipe system. No pipe shall exceed a deflection of five percent (5%). If deflection exceeds five percent (5%), replacement or correction shall be accomplished as approved by the Engineer. A rigid ball or mandrel shall be used for the deflection test. It shall have a diameter not less than ninety-five percent (95%) of the nominal inside diameter of the pipe. The pipe shall be measured in compliance with ASTM D 2122, "Standard Test Method of Determining Dimension of Thermoplastic Pipe and Fittings". The test shall be performed without mechanical pulling devices.

3.214 Pipe Plug. The Contractor shall utilize a water tight mechanical plug or cap of appropriate size to secure the open end of the pipe from debris entering into the pipe. This shall be strictly enforced at the end of each day, during any breaks lasting more than 30 minutes or unscheduled stoppage which the pipe may be left unattended for more than 30 minutes. Buckets, duct tape and other methods will not be allowed.

3.215 Abandonment.

a. Sewer Main: Properly seal off ends of pipe and fill pipe with flowable fill unless otherwise noted on plans.

b. Manhole: Remove manhole and properly dispose of material. If the sewer line remains in service, provide necessary means to avoid service interruption.

c. Sewer Service: Cap off sanitary sewer service at the sewer main.

SECTION 3-3 - METHOD OF MEASUREMENT AND BASIS OF PAYMENT

3.301 Sewer Pipe in Place. Sewer pipe shall be measured and paid for at the contract unit price for lineal foot for various sizes, including excavation and backfill complete in place. Sewer pipe shall be measured for payment after installation of the sewer, through all line manholes, through the walls of structures and existing manholes, and shall include the portion of all wyes considered as main line sewer. Such payment shall be full compensation for all labor, plant, equipment and materials necessary for a complete and accepted project, including removal of all debris, and final cleanup of the job.

3.302 Fittings and Tees. Fittings and tees shall be paid for at the contract unit price for various size fittings and tees.

3.303 Manholes. Will be paid for at the contract unit price bid per manhole, for a depth of five (5) feet (1.5 M), which payment shall include base, stubouts and ring with cover. Additional payment shall be made for manholes more than give (5) feet (1.5 M) in depth, measured from flow line to top of cover, at the contract unit price for each vertical foot or fraction thereof in excess of five (5) feet (1.5 M).

3.303 Manhole Section. To be paid for at the contract unit price measured from flow line to top of barrel sections plus concrete adjusting rings (where required).

3.304 Sales Tax Exemption. City will furnish sales tax exemption to successful bidder.

END OF SECTION

PROFESSIONAL SEALS

SANITARY SEWER IMPROVEMENT E SOUTH ST
CITY OF HASTINGS

Contract No. HU 2025-104

Professional Engineer Seal	
Specification: • **Sect. 1 General Conditions** • **Sect. 2 Special Provisions** • **Sect. 3 Sanitary Sewer**	