

**CONTRACT AND SPECIFICATIONS  
FOR  
115 KV TRANSFORMER PAD - BYPASS  
CITY OF HASTINGS  
HASTINGS, NEBRASKA  
Contract No. HU 2026-27**

**Sealed Proposals Will Be Opened Promptly At  
4:00 PM, Wednesday March 18th, 2026**

**Bid Submitted By:** \_\_\_\_\_



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FOR  
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FOR  
CITY OF HASTINGS  
HASTINGS, NEBRASKA**

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## ADVERTISEMENT FOR BIDS

The City of Hastings, Nebraska, will receive bids for: **115KV Transformer Pad – Bypass HU 2026-27** until 4:00 p.m. at the City of Hastings, 1228 N Denver Ave., Hastings, Nebraska, on **Wednesday, March 18th, 2026** at which time and place all bids will be publicly opened and read aloud. **Brief description of project: Pour pier and trench footings, form up and pour containment berm and transformer pad.** 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, 1228 N Denver Ave., 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](http://www.cityofhastings.org/bids).

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No bid shall be withdrawn after opening of bids without the consent of the City of Hastings, Nebraska, for a period of sixty (60) days after scheduled time of closing bids.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

DATED AT HASTINGS, NEBRASKA, this 19th day of February 2026

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Tyler Ficken, City Clerk

For City Clerk: Publish and Attach two (2) Proofs of Publication:

February 25, 2026

March 4, 2026

**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 himself, 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**

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

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.

***THIS BID DOCUMENT MUST BE SUBMITTED WITH BID***

# IF YOU HAVE QUESTIONS OR NEED HELP ON THESE SPECIFICATIONS

CONTRACT NO: HU 2026-27

115KV TRANSFORMER PAD - BYPASS

## **PLEASE CONTACT ANY OF THE FOLLOWING:**

### **PROJECT QUESTIONS**

Dale Reinhold  
Electrical Engineer  
Direct Line: 402-462-3661  
Email: [dreinhold@cityofhastings.org](mailto:dreinhold@cityofhastings.org)

### **GENERAL QUESTIONS OR REQUESTS**

Rena Griess  
Administrative Assistant – Engineering Dept, City of Hastings  
Ph# 402-462-3665  
Fax# 402-462-3666  
Email: [bidquestions@cityofhastings.org](mailto:bidquestions@cityofhastings.org)



# IMPORTANT MAILING (OR HAND DELIVERY) INSTRUCTIONS

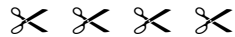
Please address your return envelope as shown in the example below. All bids must be sealed in a properly marked envelope.

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 2026-27  
115KV Transformer Pad - Bypass  
For Hastings Utilities  
Bid Opens: Wednesday, March 18 2026 @ 4:00 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 4:00 pm deadline.

**FORMAL PROPOSAL FOR  
115KV Transformer Pad - Bypass  
Contract No. HU 2026-27**

TO: City of Hastings  
1228 N. Denver Ave  
Hastings, NE 68901

**Bid Opening: March 18 2026 @ 4:00pm (Wednesday)**  
**SEALED BIDS MUST BE RECEIVED BY 4:00 P.M. AND  
WILL BE OPENED PROMPTLY AT THAT TIME**

The undersigned bidder, having read and examined the specifications and associated contract documents for the above designated equipment, does hereby propose to furnish the labor, equipment and provide the services set forth in this Proposal.

We, the undersigned, being familiar with all parts of this document, do hereby agree to provide materials and labor for Hastings Utilities, Hastings, Nebraska as specified to purchaser for the following firm prices.

**BID SECTION I: 115KV TRANSFORMER PAD - BYPASS**

Item No.	Description	Unit Price	Total Price
1	Perform drilling for pier foundations and excavate trench footings. Install specified reinforcing steel and place concrete for piers and trench footings in accordance with project specifications. Construct and pour containment wall and transformer pad, incorporating specified rebar and conduit stubs as required.	<u>LUMP SUM</u>	\$
<b>TOTAL PRICE</b>			
_____			\$ _____
<i>(Price In Words)</i>			

Liquidated Damages: Does not apply

Completion Date: June 1, 2026

\*The labor portion is not subject to sales tax; however, the material portion is taxed accordingly. The project is outside of city limits and is subject to **5.5% sales tax**. See following tax rules and regulation language.

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](http://www.revenue.nebraska.gov/salestax.html) for additional information.

**FORMAL PROPOSAL FOR  
115KV Transformer Pad - Bypass  
Contract No. HU 2026-27**

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% for projects within 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 they will comply with all applicable laws, ordinances, and codes of the City of Hastings and the State of Nebraska.

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 prices (must select one).

No       Yes

Exceptions (must select one):

No       Yes  (If yes, list on ***“Instructions to Bidders”*** page)

**All exceptions to the proposal shall be noted as an exception to the bid.**

In submitting this proposal, it is further understood that the City of Hastings reserves the right to reject any or all proposals 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 bids are opened.

All proposals shall have original signatures. Electronic time-stamped signatures will be acceptable. Photocopied or printed versions of bid bonds will be accepted without original signatures, however a hardcopy with original signatures must be received by City of Hastings within 5 business days.

**FORMAL PROPOSAL FOR  
115KV Transformer Pad - Bypass  
Contract No. HU 2026-27**

***OFFICIAL NAME & ADDRESS***

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

**ALL BIDS MUST BE CHECKED IN TO THE CITY OF HASTINGS  
PRIOR TO 4:00 PM DEADLINE**

# AGREEMENT

**THIS AGREEMENT**, made and entered into this     day of 2026, 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 **115KV Transformer Pad – Bypass HU 2026-27**.

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

**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS:

That we, the undersigned, \_\_\_\_\_,  
as principal, and \_\_\_\_\_,  
a corporation organized and existing under the laws of the State of \_\_\_\_\_,  
and duly authorized to transact business in the State of Nebraska, as surety are held and firmly  
bound unto the CITY OF HASTINGS, NEBRASKA, a municipal corporation organized and  
existing under the laws of the State of Nebraska, hereinafter referred to as CITY, in the penal sum  
of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_),  
lawful money of the United States, for the payment of which will and truly be made, we the said  
principal and the said surety do hereby bind ourselves, our heirs, executors, administrators and  
assigns, jointly and severally, by these presents as follows:

The condition of this obligation is such that, whereas the principal, by an instrument in writing  
attached hereto and bearing the date of \_\_\_\_\_, 20\_\_\_\_, has agreed with the  
CITY to do all work necessary and to furnish all labor, materials, supplies, tools and equipment to  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

as specified thereby and in the specifications, proposals and contract forming the Contract  
Documents attached thereto and made a part hereof:

NOW THEREFORE, if the principal shall well and truly in good, sufficient and in a  
workmanlike manner, and to the satisfaction of the CITY perform and complete the work required,  
and shall defend, indemnify and save harmless the CITY against all damages, claims, demands,  
expenses and charges of every kind (including claims of patent infringement) arising from any act,  
omission or neglect of said principal, his agents, servants or employees, with relation to said work,  
and shall pay all costs, charges, rentals and expenses for labor, materials, supplies and equipment  
and deliver the said improvement to the CITY completed and ready for operation and free from all  
encumbrances or claims for labor, materials or otherwise, and shall pay all other expenses lawfully  
chargeable to the CITY, and this bond shall also be for the use and benefit of all persons who may  
perform any work or labor or furnish any material in the execution of said Contract and may be

sued on thereby in the name of any such party claiming the benefit hereof, then this obligation shall be void, otherwise the same shall remain in full force and effect. This obligation shall be in full force and effect for the full guarantee period provided in the specifications contained herein.

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

PROVIDED FURTHER, that if the principal of his, their or its subcontractor or subcontractors fail to duly pay for any labor, materials team, hire sustenance, provisions, provender or any other supplies or materials used or consumed by such contractor of his, their or its subcontractors in performance of the work contracted to be done, the surety will pay the same in any amount not exceeding the sum specified in the bond together with interest as provided by law.

IT WITNESS WHEREOF, said principal and surety have hereunto set their hands and seals at \_\_\_\_\_ this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

This Bond is executed in triplicate counterparts.

	_____	Principal
(SEAL)	_____	Street Address
_____	_____	City, State, Zip
Witness	_____	Name of Person Executing
ATTEST:	_____	Surety
_____	By: _____	
_____	Title: _____	



# INSURANCE COVERAGE

The undersigned hereby certifies that Workmen's Compensation, Public Liability and Property Damage, and Automobile Liability and Property Damage Insurance is 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 \_\_\_\_\_

\_\_\_\_\_  
SUPPLIER

By \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

\_\_\_\_\_  
INSURANCE COMPANY

By \_\_\_\_\_

Title \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_

# 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, Utilities Department.

**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.

## SECTION 1- GENERAL CONDITIONS

**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

## SECTION 1- GENERAL CONDITIONS

A.R.E.A.	American Railway Engineering Association
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

## SECTION 1- GENERAL CONDITIONS

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.

## SECTION 1- GENERAL CONDITIONS

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

## SECTION 1- GENERAL CONDITIONS

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.

## SECTION 1- GENERAL CONDITIONS

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 Hastings Utilities 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.

## SECTION 1- GENERAL CONDITIONS

**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 supplied 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.

## SECTION 1- GENERAL CONDITIONS

Before any work is started, the contractor shall submit a project schedule for review. This schedule is to be updated monthly as progress may alter. Regular progress meetings may be scheduled at the discretion of the Engineer.

The Contractor shall at all times have on the jobsite, 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. In the event the superintendent fails to meet the requirements, they shall be subject to replacement as requested by the Engineer.

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 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.
3. Any damages caused by the contractor are to be addressed in a timely manner. In the event 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.

## **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 extent 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 addition 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.



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 Hastings Utilities 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 Hastings Utilities 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 or 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 No Waiver of Legal Rights.** 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 any 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, nor 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 nor 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 (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 CONDITIONS

### SPECIAL CONDITIONS

SC.1 GENERAL. These Special Conditions are nontechnical in nature and shall supplement the General Conditions in the administration and regulation of field construction work performed under these specifications.

SC.2 ENGINEER'S DRAWINGS AND SPECIFICATIONS. After contract award, the Contractor will be furnished two sets of all drawings including revisions thereto and two working copies of the specifications without charge. Additional sets of drawings and revisions thereto and additional copies of specifications may be obtained by payment of printing, handling, and mailing costs. All drawings and specifications shall be returned to the Purchaser upon completion of the work.

SC.3 PROJECT MANAGEMENT. The coordination of all field construction will be under the direction of the Purchaser, who will be responsible for coordinating work between various contractors and for resolving any conflicts between contractors regarding scheduling or coordination.

The time of completion is a basic consideration of this Contract and the Contractor shall be responsible for performing his work in accordance with the specified construction schedule. If at any time the Contractor's work is behind schedule, the Contractor shall increase his forces, work overtime, or otherwise accelerate his operations to comply with the schedule, and shall put into effect definite procedures for getting the work back on schedule. The proposed procedures shall be subject to the Purchaser's acceptance or modification. The procedures adopted shall be put into effect immediately.

The Purchaser will not be responsible for the assignment of personnel, or for obtaining materials or supplies, or for any other services to the Contractor except the coordination of work between contractors and as specifically set forth in the contract documents.

SC.4 CONTRACTOR'S OFFICE AT SITE OF WORK. Not used.

SC.5 FIELD RECORDS. The Contractor shall maintain at the project site an orderly and adequate file of up-to-date copies of all Engineer's drawings and specifications, manufacturer's prints and specifications, and other contract documents and supplementary data.

In addition, the Contractor shall maintain a continuous record of all field changes by means of a set of drawings marked to indicate current "as-built" conditions. This "as-built" set of drawings shall be available for check by the Purchaser in order for him to ascertain that it is being kept current. At the conclusion of the work, the "as-built" drawings and other engineering data, accurately and neatly marked with field changes, shall be submitted to the Purchaser in the required number of copies. The "as-built" drawings and data shall include all revisions to the work made under this Contract, including those made by subcontractors.

## **SECTION 2 - SPECIAL CONDITIONS**

SC.6 CONTRACTOR'S SUPERVISION AT THE SITE. The Contractor shall furnish adequate management, supervisory, and technical personnel on the site to ensure expeditious and competent handling of the work.

A superintendent experienced in construction of the type specified, knowledgeable in the pertinent industry codes and standards, and who is a permanent member of the Contractor's organization, shall be a resident at the project throughout the construction. The superintendent shall be fully authorized to act for the Contractor and to receive whatever orders or notices may be given for the proper prosecution of the work. Contractor shall provide superintendents resume for approval by Owner.

The Contractor's field organization shall include an experienced staff of qualified technical personnel to handle onsite engineering, planning, and direction of all field work.

The Contractor shall be responsible for complete supervision and control of his subcontractors as though they were his own forces. Notice to the Contractor shall be considered notice to any affected subcontractor.

SC.7 SUBCONTRACTS. The Contractor shall perform the majority of the work with his own forces and under the management of his own organization. Specific portions of the work may be subcontracted only by subcontractors who have been listed in the Proposal and who are accepted by the Purchaser as provided in the General Conditions. All subcontractors shall be directly responsible to the Contractor and shall be under his general supervision. All work performed under subcontracts shall be subject to the same contract provisions as the work performed by the Contractor's own forces.

SC.8 RELATIONS WITH OTHER CONTRACTORS. The Contractor shall cooperate with all other contractors who may be performing work in behalf of the Purchaser, and with workmen who may be employed by the Purchaser in the vicinity of the work under this Contract, and he shall conduct his operations to minimize interference with the work of such contractors or workmen. The Contractor shall promptly make good, at his own expense, any injury or damage that may be sustained by other contractors or employees of the Purchaser due to activities associated with this Contract. Any difference or conflict which may arise between the Contractor and other contractor's, or between the Contractor and workmen of the Purchaser, in regard to their work shall be resolved as determined by the Purchaser.

SC.9 ACCEPTANCE OF WORK BY OTHERS. If any part of the Contractor's work is dependent upon the quality and completeness of work performed under another contract, the Contractor shall inspect the other contractor's work and promptly report defects therein which render such work unsuitable for the proper execution of the work under this Contract. Failure to report such defects to the Purchaser shall constitute the Contractor's acceptance of such work as suitable to receive the Contractor's work; provided, however, that the Contractor shall not be responsible for defects which develop after his inspection and which could not have been reasonably detected or foreseen.

## **SECTION 2 - SPECIAL CONDITIONS**

SC.10 METHODS OF FIELD OPERATION. The Contractor shall inform the Purchaser in advance concerning his plans for carrying out each part of the field work. Review by the Purchaser of any plan or method of work proposed by the Contractor shall not relieve the Contractor of any responsibility therefor, and such review shall not be considered as an assumption of any risk or liability by the Purchaser or any officer, agent, or employee thereof. The Contractor shall have no claim because of the failure or inefficiency of any plan or method so reviewed.

Any method of work suggested by the Purchaser, but not specified, shall be used at the risk and responsibility of the Contractor, and the Purchaser will assume no responsibility therefor. The Contractor alone shall be responsible for the safety, adequacy, and efficiency of his construction plant, equipment, and methods.

The Contractor shall be solely and completely responsible for conditions of the jobsite, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. The Purchaser's construction review of the Contractor's performance is intended to include review of the adequacy of the Contractor's safety measures in, on, or near the construction site.

Shutdown of valves or equipment will be made only by Owner's personnel. In the event that an emergency condition warrants, the Contractor shall take direct action to make shutdown, but must notify Owner immediately and remain on worksite to demonstrate what has taken place to Owner's personnel.

SC.11 SAFETY, HEALTH, AND ACCIDENT PREVENTION. The Contractor shall conduct all operations under this Contract in a manner to prevent bodily harm and damage to property. The Contractor shall continuously inspect all operations, work, materials, and equipment; shall conduct health surveys of all work areas; and shall be solely responsible for the discovery, determination, and correction of conditions which constitute a risk of bodily harm or property damage.

The Purchaser will resolve conflicts regarding safety and health measures and practices. The Purchaser will monitor the Contractor's safety and health measures, and may require changes in the Contractor's Safety, Health, and Accident Prevention Program during the performance of the work.

The Contractor shall implement and maintain a written Safety, Health, and Accident Prevention Program specifically applicable to the work. The Contractor's program shall meet the requirements of the codes and regulations of federal, state, local, and other authorities having jurisdiction over this work. The Contractor's Safety, Health, and Accident Prevention Program shall include disciplinary procedures and safety orientation training procedures applicable to Contractor and subcontractor personnel.

The Contractor's Safety, Health, and Accident Prevention Program shall include equipment to be used, sampling strategy and calculations, methods of compliance, and personnel protective equipment. The calibration, sampling, and analytical laboratory procedures used shall be in conformance with OSHA's Industrial Hygiene Field Operations Manual.

## SECTION 2 - SPECIAL CONDITIONS

The Contractor's Safety, Health, and Accident Prevention Program shall be submitted for review by the Purchaser 30 days prior to the start of the work at the project site. This review will not relieve the Contractor of his responsibility for safety and health, nor shall such review be construed as limiting in any manner the Contractor's obligation to undertake any action which may be necessary or required to establish and maintain safe working conditions respecting his work at the project site. The Purchaser reserves the right to require the Contractor to modify any portion of his Safety, Health, and Accident Prevention Program.

The Contractor shall immediately correct any unsafe conditions identified by the Purchaser. In the event the Contractor fails to immediately correct such unsafe conditions, the Purchaser 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 the work shall not give rise to any duty on the part of the Purchaser to exercise this right.

The Contractor shall appoint a qualified Safety and Health Representative. The Safety and Health Representative shall attend all project safety and health meetings. The Contractor's Safety and Health Representative shall have the authority to have unsafe conditions corrected and direct that the work be stopped in the area of the unsafe condition, if deemed necessary.

The Contractor shall maintain accurate accident and injury reports.

The Contractor shall hold regular scheduled meetings to instruct his personnel and his subcontractors' personnel in safety and health practices. The Contractor shall furnish safety and health equipment and enforce the use of such equipment by his employees and the employees of his subcontractors.

The Contractor waives the right to bring claim for damages against the Purchaser or Engineer for any cause whatsoever because of any action taken or not taken including but not limited to 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 Purchaser or Engineer is brought by a third party, the Contractor shall indemnify and defend the Purchaser or Engineer against such claim in accordance with the General Conditions article entitled INDEMNIFICATION.

SC.12 FALL PROTECTION. The OSHA Fall Protection Standard 29 CFR 1926 Subpart M shall be strictly adhered to by the Contractor. Fall protection is required for all of Contractor's Work operations one hundred percent of the time, whether climbing, traveling, or working. **No Work operation is exempt from the six (6) foot fall protection requirement.**

Fall protection body harnesses, lanyards, and lifelines shall be used in accordance with OSHA Standard 1926 Subpart 502D, with the following exceptions:

Full body harnesses shall be used in lieu of safety belts.

## SECTION 2 - SPECIAL CONDITIONS

Only lanyards with shock absorbers and locking type snap hooks shall be used.

At least two lanyards shall be used to provide one hundred percent fall protection when moving around obstructions, connection points, or other similar items.

Fall protection guardrail systems shall comply with OSHA Standard 1926 Subpart 502(b) except manila, plastic, or synthetic rope shall not be used as guardrails.

Contractor shall provide his own confined space equipment, monitors, and personnel for hole watches.

### SC.13 LINES AND GRADES.

Not used

### SC.14 PRESERVATION OF MONUMENTS AND STAKES.

Not used

SC.15 PROTECTION OF PROPERTY AND PUBLIC LIABILITY. The Contractor shall be accountable for any damages resulting from his operations. He shall be fully responsible for the protection of all persons including members of the public, employees of the Purchaser, employees of the Engineer, and employees of other contractors or subcontractors, and all public and private property including structures, sewers, and utilities above and below ground.

The Contractor shall furnish and maintain all necessary safety equipment, such as barriers, signs, warning lights, and guards, to provide adequate protection of persons and property.

The Contractor shall give reasonable notice to the owners of public or private property and utilities when such property and utilities are liable to injury or damage through the performance of the work and shall make all necessary arrangements with such owners relative to the removal and replacement or protection of such property or utilities.

SC.16 EMERGENCY PROTECTION. Whenever, in the opinion of the Purchaser, the Contractor has not taken sufficient precaution for the safety of the public or the protection of the work to be constructed under this Contract or of adjacent structures or property, and whenever, in the opinion of the Purchaser, an emergency has arisen and immediate action is considered necessary, then the Purchaser, with or without notice to the Contractor, may provide suitable protection by causing work to be done and material to be furnished and placed. The cost of such work and material shall be borne by the Contractor, and if the same is not paid on presentation of the bills therefor, such costs may be deducted from any amounts due or to become due the Contractor. The performance of such emergency work shall not relieve the Contractor of responsibility for any damage which may occur.

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SC.17 LOSSES FROM NATURAL CAUSES. All loss or damage arising out of the nature of the work, or from the action of the elements, or from floods or overflows, or from ground water, or from any unusual obstruction or difficulty, or any other natural or existing circumstance either known or unforeseen which may be encountered in the prosecution of the work, shall be sustained and borne by the Contractor at his own cost and expense.

SC.18 QUALIFICATIONS OF WORKMEN. The Contractor shall employ only workmen who are competent to perform the work assigned to them and, in the case of skilled labor, who are adequately trained and experienced in their respective trades and who do satisfactory work.

SC.19 SUNDAY, HOLIDAY, AND NIGHT WORK. Working hours will be determined by the contractor to meet the time requirements of the contract. Working hours must be approved by City of Hastings.

SC.20 UNFAVORABLE CONSTRUCTION CONDITIONS.

Not used.

SC.21 REJECTED WORK AND MATERIALS. The Contractor, upon written notice from the Purchaser, shall remove from the premises all work and materials rejected as defective, unsound, improper, or in any way failing to conform to the requirements of the contract documents. The Contractor shall at his sole expense make good all work damaged by such removal and shall promptly replace materials damaged or improperly worked by him and re-execute his own work in accordance with the contract. This includes re-executing or replacing the work of any other contractor that is in any way affected by the removal of the defective work. The obligations of the Contractor under this article shall not extend to defective materials or equipment supplied by the Purchaser, if any.

If the Contractor does not remove his rejected work and materials within 10 days after written notice, the Purchaser may remove and replace such work and materials at the expense of the Contractor.

SC.22 PLACING WORK IN SERVICE. If desired by the Purchaser, portions of the work may be placed in service when completed and the Contractor shall provide proper access for this purpose. Such use and operation shall not constitute an acceptance of the work, and the Contractor shall be liable for defects due to faulty construction throughout the duration of this Contract and thereafter as provided under the "Guarantee" provisions of the General Conditions.

SC.23 CLEANLINESS. The Contractor shall give special attention to keeping the worksite clean and free from trash and debris.

Trash, debris, and waste materials shall not be allowed to accumulate, but shall be removed from the site and disposed of by and at the Contractor's expense. No on site burning shall be allowed.

## SECTION 2 - SPECIAL CONDITIONS

Promptly upon completion of the construction work, all Contractor-owned facilities, materials, and construction plant shall be removed from the site. All surfaces damaged by deposits of foreign materials such as oil, grease, weld spatter, and paint shall be restored to their original conditions.

SC.24 PURCHASE ORDERS. Submittal of purchase orders shall not be required.

SC.25 FIRE PROTECTION. Only work procedures which minimize fire hazards to the extent practicable shall be used. Combustible debris and waste materials shall be collected and removed from the site each day, as provided under CLEANLINESS. Fuels, solvents, and other volatile or flammable materials shall be stored away from the construction and storage areas in well marked, safe containers. Good housekeeping is essential to fire prevention and shall be practiced by the Contractor throughout the construction period. The Contractor shall follow the recommendations of the AGC "Manual of Accident Prevention in Construction" regarding fire hazards and prevention.

The Contractor alone shall be responsible for providing adequate fire protection. Failure of the Contractor to comply with or the Purchaser to enforce, the above requirements shall not relieve the Contractor from any responsibility or obligation under this Contract.

The Contractor shall use and abide by Purchaser's hot work permit procedures.

SC.26 SECURITY. The Contractor shall be responsible for all materials and equipment in his custody or placed in construction by him. Security methods shall be employed as required to ensure the protection of all materials, equipment, and construction work from theft, vandalism, fire, and all other damage and loss.

The Contractor shall cooperate with the Purchaser regarding all security measures instituted at the jobsite.

SC.27 PROTECTION OF WORK. The Contractor shall be solely responsible for the protection of his work until its final acceptance by the Purchaser.

The Contractor shall have no claim against the Purchaser or the Engineer because of any damage or loss to the Contractor's work and shall be responsible for the complete restoration of damaged work to its original condition complying with the contract documents.

In the event the Contractor's work is damaged by another party not under his supervision or control, the Contractor shall make his claim directly with the party involved. If a conflict or disagreement develops between the Contractor and one of the other contractors concerning the responsibility for damage or loss to the Contractor's work, the conflict shall be resolved as provided under RELATIONS WITH OTHER CONTRACTORS. Such conflict shall not be cause for delay in the restoration of the damaged work. The Contractor shall restore the work immediately and the cost thereof will be assigned pending the resolution of the conflict.

## **SECTION 2 - SPECIAL CONDITIONS**

SC.28 PROTECTION OF CONCRETE SURFACES. Concrete floors and other concrete surfaces shall be protected from chipping, gouging, scratching, staining, and other damage. Damaged sections shall be repaired or removed and replaced subject to the Purchaser's discretion and acceptance.

Heavy planks and mats shall be placed under equipment and materials being stored, moved, assembled, or installed on or above concrete floor surfaces. Nonflammable, oil-resistant coverings shall be used to protect concrete surfaces from staining.

SC.29 PROTECTION OF ELECTRICAL RACEWAY, CABLE, AND LIGHTING FIXTURES. The Contractor shall protect electrical raceway, cable, lighting fixtures, and associated support systems against damage from movement of equipment and materials, welding, flame cutting, and other construction damage. Raceway and supporting structures for raceway and lighting fixtures shall not be used as access scaffolding at any time. Whenever welding or flame cutting operations occur above or near raceways, cables, or lighting fixtures not shielded from such operations by protective covers, the Contractor shall protect the raceways, cables, and lighting fixtures from damage by means of fire-resistant boards or blankets. Damaged materials shall be repaired or replaced subject to the Purchaser's discretion and acceptance.

Where concrete is removed, or holes are filled, the surrounding equipment shall be protected from concrete, water and dust. Where concrete is removed, dust shall be collected.

SC.30 REPAIR OF DAMAGES. The Contractor shall immediately repair any damage which results from this construction or abnormal use, including damage done to the existing facilities. All such repair work shall be acceptable to the Purchaser.

SC.31 INDEPENDENT TESTING LABORATORY. Not Used

SC.32 COOPERATION WITH THE PURCHASER. The performance of construction work which affects the operation of the Purchaser's system facilities shall be scheduled to be performed only at times acceptable to the Purchaser.

In the event that it is necessary to interrupt the Purchaser's operations or the power supply or to impose abnormal operating conditions on the Purchaser's utility system, such procedure must be acceptable to the Purchaser and a complete understanding and agreement must be reached by all parties concerned well in advance of the time scheduled for such operation, and such understanding shall be definite as to date, time of day, and length of time required. All work shall be scheduled to suit the Purchaser's convenience, taking into consideration the facilities and requirements at all times during construction. The Contractor shall perform work which affects the Purchaser's system facilities at times other than regular working hours if required.

SC.33 MINOR DEFECTS. The Contractor shall readjust, straighten, and repair minor defects and fabrication errors which are normally encountered in the Purchaser-furnished equipment and materials. No claims for extra compensation in connection with such work will be

## SECTION 2 - SPECIAL CONDITIONS

considered unless the claim is made in accordance with the applicable provisions in the General Conditions.

When field labor is needed to correct significant errors in the Purchaser-furnished equipment and materials, the Contractor shall furnish such labor when so requested by the manufacturer or by the Purchaser with the consent of the manufacturer. Such labor shall not be included in this Contract, and the Contractor shall obtain payment for the labor from the manufacturer.

SC.34 CHECKOUT AND INITIAL OPERATION. The Contractor shall render all services and do all work required to place each item of equipment installed by him, including all auxiliaries, piping, and wiring, in operating condition to the satisfaction of the Purchaser. Individual systems and items of equipment shall be completed in a sequence that will permit systematic checkout and trial operation of each such component before it is incorporated in the initial operation.

The Purchaser will furnish operating personnel during checkout and initial operation.

It is anticipated that the startup testing and initial operation will be in progress over extended periods of time.

All regular and overtime payrolls and all other contingencies in connection with the checkout and initial operation of equipment shall be included as a part of the lump sum contract price.

SC.35 CONSTRUCTION PLANT AND TEMPORARY FACILITIES. Temporary facilities are defined in Section 3 General Description and Scope of Work

SC.36 RECEIVING, HANDLING, AND STORAGE. Responsibilities for receiving, handling, and storage are defined in Section 3 General Description and Scope of Work.

SC.37 EQUIVALENT MATERIALS AND EQUIPMENT. Whenever a material or article is specified or described by using the name of a proprietary product or the name of a particular manufacturer or vendor, the specific item mentioned shall be understood as establishing the type, function, and quality desired. Other manufacturers' products will be accepted provided sufficient information is submitted to allow the Engineer to determine that the products proposed are equivalent to those named.

Requests for review of equivalency will not be accepted from anyone except the Contractor and such requests will not be considered until after the contract has been awarded.

SC.38 RIGHTS-OF-WAY.

Not used.

SC.38.1 ON PRIVATE PROPERTY.

Not used.

## **SECTION 2 - SPECIAL CONDITIONS**

### SC.39 FENCES.

Not used.

### SC.40 PROTECTION OF PUBLIC AND PRIVATE PROPERTY.

Not used.

### SC.41 MAINTENANCE OF TRAFFIC.

Not used.

### SC.42 BARRICADES AND LIGHTS.

Not used.

### SC.43 UNDERGROUND INSTALLATIONS

Not used.

### SC.44 LAND FOR CONSTRUCTION PURPOSES.

Not used.

SC.45 ENERGIZED FACILITIES. Existing transmission lines, substations, distribution lines, utility lines, telephone lines and other power and signal service lines will be encountered on the site of the work. These service systems will remain energized and functional during construction.

Temporary outages required by the Contactor to perform certain construction activities will be provided by the Purchaser. The Contractor shall give written notice to the Purchaser a minimum of seven days in advance of any requested outages. The Contractor shall recognize that certain outage restrictions may apply that will not allow for an outage, as requested. The Contractor's proposed schedule shall account for these outage restrictions. No extension of time or any additional compensation will be given for these outage restrictions.

The Contractor shall be completely responsible for the safety and protection of his personnel and the public on the site of the work and shall employ all methods necessary to achieve such safety and also assure continuity of all service systems encountered. These methods shall include, but not be limited to, providing barriers, guard structures, insulating guards and sleeves, warning signs, and prevention of unauthorized access to substations.

### SC.46 ARTIFACTS.

Not used.

## **SECTION 2 - SPECIAL CONDITIONS**

SC.47 FINAL CLEANUP AND GRADING.

Not used.

SC.48 DUST CONTROL.

Not used.

## **Scope of Work – Concrete Footings and Pads (Magenta Areas on DWGs)**

### **1. Excavation**

- Excavate designated areas for concrete footings and pads in the location shown on the drawings.

### **2. Reinforcement**

- Furnish and install reinforcing steel in accordance with project specifications:
  - Bars: ASTM A615, Grade 60
  - Welded wire fabric: ASTM A1064
  - Placement and cover per ACI 318 and Section 16803.7 of the specification.
- Provide all required accessories (bar supports, ties, spacers, bolsters) to maintain reinforcement in proper position.

### **3. Formwork**

- Construct formwork to meet dimensional tolerances per ACI 117 and Section 16803.8.

### **4. Conduit Installation**

- Install conduit stubs and sleeves as indicated for electrical and grounding requirements prior to concrete placement.

### **5. Concrete Placement**

- Provide and place Class I concrete for footings and pads per Section 16803.4:
  - 4,000 psi at 28 days
  - Maximum water-cement ratio: 0.45
  - Air content: 5% ± 1%
  - Include plasticizer or plasticizing retarder.
- Placement, consolidation, and curing shall comply with ACI 301 and Sections 16803.10 and 16803.16.

### **6. Install CPER-OR Liner and Geotextile Filter Fabric**

### **7. Quality Assurance**

- Submit mix design reports and reinforcement shop drawings for approval per Sections 16803.3 and 16803.7.
- Perform field control tests (slump, air content, compression) as required by Section 16803.6.

## 16803 - Cast-in-Place Concrete - Specification

### 16803.1 General

This section covers all substation cast-in-place concrete and includes reinforcing steel, forms, finishing, curing, and other appurtenant work.

### 16803.2 Materials

Materials shall be in accordance with the following requirements:

Cement	ASTM C150, Type I, II or III.
Fine aggregate	Clean natural sand, ASTM C33 including Appendix XI. Manufactured sand will not be acceptable.
Coarse aggregate	Crushed stone, washed gravel, or other acceptable inert granular material conforming to ASTM C33 including Appendix XI, class designation 4S.
Water	Potable, free from deleterious substances. Iron shall not exceed 0.25 ppm.
Admixtures	
Plasticizer	ASTM C494, Type A
Air-entraining agent	ASTM C260
Plasticizing retarder	ASTM C494, Type D
Reinforcing Steel	
Bars not otherwise noted	ASTM A615, Grade 60. Yield strength shall be determined by full size bar tests.
Bar supports	CRSI Class 3 where in contact with formed surfaces that will not be exposed. CRSI Class 1 plastic protected for use in contact with forms for exposed surfaces.
Welded wire fabric	ASTM A1064
Mechanical splices	Erico products "Cadweld," Erico LENTON Taper Threaded Couplers, or Dayton Superior Dowel Rebar Splicing Products
Fibrous reinforcement	Fibrillated polypropylene, minimum tensile strength 70,000psi, application rate 1.6 lb/cy, manufactured by FORTA Corp., Ph. (800) 245-0306 or approved equal.
Water stops	
Flexible	PVC ribbed or serrated, 9 inches by 3/8 inch, with "0" bulb closed center sections unless otherwise indicated on the drawings. Select from products listed below or approved equal.
Greenstreak	"Greenstreak 709"
BoMetals	"Ribbed Center Bulb RCB-938"

Vynlex	"RB9-38"
Forms	
Prefabricated	Aluma Systems "Mod-U-Form", Dayton Superior Symons "Steel Ply", or approved equal
Plywood	Product Standard PS1, waterproof, resin-bonded, exterior type, Douglas fir; face adjacent to concrete Grade B plywood or better.
Fiberboard	Fed Spec LLL-B-810, Type II; tempered, waterproof, screenback.
Lumber	Straight, uniform width and thickness, and free from knots, offsets, holes, dents, and other surface defects.
Chamfer strips	Clear pine, surface against concrete shall be planed.
Form coating	Nox-Crete Form Coating, L&M Debond, Dayton Superior Clean Strip Ultra J3, Dayton Superior Magic Kote or approved equal
Polyethylene film	Fed Spec L-P-378D, Type I; 6 mil
Isolation joint materials	Preformed, ASTM D1752, Type I (sponge rubber) or closed cell plastic foam (PVC or polyethylene).
Urethane sealant	Two component, Fed Spec TT-S-00227E, Type 1, Class A; gray color.
Primer	As recommended by sealant manufacturer.
Epoxy bonding adhesive	ASTM C881, Types I and V, moisture insensitive, 100 percent solids. Select from products listed below or approved equal.
Sika Chemical	"Sikadur 32 Hi-Mod"
BASF	"MasterEmaco ADH 326"
Euclid Chemical	"Duralprep A.C."
Membrane curing compound and floor sealer	Styrene-acrylate or styrene-butadiene; ASTM C309, Type 1, except that it shall have a minimum 18 percent solids, shall be non-yellowing, and shall have a maximum unit moisture loss of 0.039 g/sq cm maximum.

### 16803.3 Mix Design Submittals

The source and quality of concrete materials and the concrete proportions proposed for the work shall be submitted to the Engineer for acceptance before the concrete work is started. Complete certified reports covering the materials and proportions shall be prepared by an independent testing laboratory and submitted to the Engineer. Review of these reports will be for general acceptability only; continued compliance with all contract provisions will be required.

A tentative concrete mix shall be designed and tested for each concrete Mix Class specified. Design quantities and test results of each mix shall be submitted for review. Acceptable mixes shall be subject to field adjustment as necessary to meet the requirements of these specifications.

Reports for each concrete mix design shall contain the following information:

Compressive Strength and Slump on which design is based.

Description of materials.

Cement content.

Total gallons of water per cubic yard.

Water-cement ratio.

Ratio of fine to total aggregates.

Weight (surface dry) of each aggregate per cubic yard.

Quantity of each admixture.

Air content.

Compressive strength based on 7 day and 28 day compression tests.

Times of initial set.

#### 16803.3.1 Thermal Concrete Fill

When the Class III - Thermal Concrete Fill is required, the mix design shall be coordinated with Geotherm USA, to ensure the design thermal rho is acceptable.

In addition to the normal testing, two compression test cylinders shall be made from each design mix of the Class III concrete for the purpose of determining the thermal rho characteristics of the concrete. The test cylinders shall be made using the standard methods except each shall contain a specially designed thermal probe properly installed for the purpose of thermal testing. The thermal probe, laboratory testing, and consultation costs shall be paid by the Contractor and shall be purchased from Geotherm USA. Shipping costs shall also be paid by the Contractor.

#### 16803.4 Limiting Requirements

Each concrete mix shall be designed and concrete shall be controlled within the following limiting requirements.

The acceptability of concrete will be judged on the basis of compliance with all of the specified requirements and not on the basis of strength alone.

Mix Class	Application	28 Day Strength	Coarse Aggregate Size	Cement Content (lb/cy)	Air Content	Slump Range	Maximum Water to Cement Ratio
I*	For all slabs, footings and General Usage	4,000 psi	1" to No.4	585	5%+1%	4"+1"	0.45
II*	Drilled Piers	4,000 psi	3/4" to No.4	600	5%+1%	6"+1"	0.45
III**	Duct Bank - Thermal Fill	750 psi to 1,000 psi	3/8" to No.4	--	2% max	7"+1"	0.50



Project Field Manager. When a truck mixer is used for the complete mixing of the concrete, the mixing operation shall begin within 30 minutes after the cement has been added to the aggregates.

### **16803.6 Field Control Testing**

The following field control tests shall be made at the point of placement and in the presence of the Project Field Manager.

All tests shall be performed by an acceptable independent testing laboratory at the expense of the Contractor.

The Contractor shall provide all equipment, supplies and services as necessary complete the field control testing.

The frequency specified for each field control test is a minimum. Additional field control tests shall be made if requested by the Project Field Manager.

#### **16803.6.1 Aggregate Gradation**

It is not anticipated that aggregate gradation tests will be required after the tests made for the initial acceptance of the materials. However, if directed to do so by the Project Field Manager, the Contractor shall sample and test the fine and coarse aggregate in accordance with ASTM D75 and C136.

#### **16803.6.2 Slump**

A slump test shall be made the first batch mixed each day. An additional slump test shall be made for each additional 50 cubic yards of concrete placed in any one day. Slump shall be determined in accordance with ASTM C143.

#### **16803.6.3 Air Content**

An air content test shall be made each day from one of the concrete batches used to make compression test cylinders. Air content shall be determined in accordance with ASTM C231.

#### **16803.6.4 Compression Tests**

A set of three compression test cylinders shall be made each day concrete is placed. An additional set of three compression test cylinders shall be made for each additional 50 cubic yards of concrete placed in 1 day. One cylinder of each set shall be tested at an age of 7 days and the other cylinder of each set shall be tested at an age of 28 days. The third cylinder will be kept as a spare for additional testing, if required.

Concrete test cylinders shall be made and handled in accordance with ASTM C31 and tested in accordance with ASTM C39.

Each set of compression test cylinders shall be marked or tagged with the date and time of day the cylinders were made, the location in the work where the concrete represented by the cylinders was placed, the delivery truck or batch number, the air content, and the slump.

#### **16803.6.5 Thermal Rho Tests**

For thermal rho testing, two compression test cylinders shall be made every third day Class III-Thermal Concrete Fill is placed. Test cylinders shall be made using standard methods except each shall contain a specially designed thermal probe properly installed for the purpose of thermal testing. Testing shall be performed by Geotherm, Inc. All costs associated with the thermal rho testing shall be paid by the Contractor.

#### **16803.6.6 Test Reports**

The Contractor shall furnish the Project Field Manager, and all other persons designated by the Project Field Manager, certified reports of all tests.

### **16803.7 Reinforcement**

Reinforcements shall be accurately formed. The details of fabrication shall conform to ACI 318.

#### **16803.7.1 Accessories**

The Contractor shall provide all bar supports, ties, spacers, bolsters, inserts, screeds, and other concrete accessories required to maintain reinforcing in its proper position and permit proper placement of concrete.

#### **16803.7.2 Certification**

Certification shall be furnished stating that the reinforcing steel complies with the specified requirements.

#### **16803.7.3 Tensile Tests**

Tensile tests shall be performed in accordance with ASTM A615.

#### **16803.7.4 Welding**

Welding of reinforcement is expressly prohibited. Reinforcement with unauthorized welds shall be removed and replaced.

Welded chairs and supports may be used provided they are clamped or wired to the reinforcement.

#### **16803.7.5 Shop Drawings and Bar Lists**

Bar lists and reinforcement placement drawings shall be submitted to the Engineer for acceptance. Each bar list and placement drawing shall have a statement which identifies the grade of reinforcing required by that drawing.

#### **16803.7.6 Concrete Cover**

Metal reinforcement for concrete shall have the concrete protective cover specified in Chapter 7 of ACI 318-11 or Chapter 20 of ACI 318-14 or later.

#### **16803.7.7 Placement**

Reinforcements shall be accurately positioned and secured in place with wire ties or suitable clips. Bare metal supports shall not be used in contact with forms for exposed surfaces.

Clear distance between parallel bars shall be not less than 1.5 times the maximum size of coarse aggregate in the concrete, or less than 1 inch in beams, 1-1/2 inches in columns, or 2 inches in other locations. Where reinforcements in beams are placed in two or more layers, the bars in the upper layer shall be placed directly above the bars in the lower layer and the clear distance between bars shall be not less than 1 inch. Clear distance limitations between individual bars shall also apply to the clear distance between a contact lap splice and adjacent splices or bars.

#### **16803.7.8 Splices**

Splices shall conform to ACI 318. Splices shall be Class B tension-lapped splices unless otherwise indicated on the drawings. Splices in horizontal reinforcement placed in vertical wall sections shall be detailed in accordance with the top reinforcement requirements of ACI 318.

Splices shall not be used in regions of maximum bending stress. Welded splices shall not be used.

### **16803.8 Forms**

Forms shall be designed and constructed to produce hardened concrete having the shape, lines, and dimensions indicated on the drawings. Tolerances shall in accordance with ACI 117. Formed surfaces exposed to view shall have a Class C finish and concealed surfaces may have a Class D finish as defined by ACI 117.

Vertical surfaces of footings extended above grade shall be formed.

Form ties shall be of the removable end, permanently embedded body type, and shall have sufficient strength, stiffness, and rigidity to support and maintain the form in proper position and alignment without the use of auxiliary spreaders. Outer ends of the permanently embedded portions of form ties shall be at least 1 inch back from adjacent outer concrete faces. Permanently embedded portions of form ties which are not provided with threaded ends shall be constructed so that the removable ends can be broken off by twisting, without chipping or spalling the concrete surface. The type of form ties used shall be acceptable to the Project Field Manager.

Form ties in exposed surfaces shall be uniformly spaced and aligned in horizontal and vertical rows.

Chamfer strips shall be placed in forms to bevel all salient edges and corners. Bevel dimensions shall be 3/4 by 3/4 inch unless indicated otherwise on the drawings.

Forms shall not be removed or disturbed until the concrete has attained sufficient strength to safely support all dead loads and any imposed construction live loads.

### **16803.9 Embedments**

Materials embedded in the concrete shall be accurately positioned and securely anchored.

Anchor bolts shall be provided with sufficient threads to permit a nut to be installed on each side of the form or template. The nut shall secure the bolt in its proper position.

Embedments shall not be welded to reinforcement.

Embedments shall be clean when they are installed. After concrete placement, exposed surfaces of embedments shall be cleaned of all concrete spatter and other foreign substances.

### **16803.10 Placement**

The handling, depositing, and compacting of concrete shall conform to these specifications subject to adjustment by the Project Field Manager for weather or placement conditions.

The Project Field Manager shall be given 24 hours advance notice of exact concrete pour starting time. Concrete shall not be placed in the absence of the Project Field Manager.

Concrete shall not be pumped through aluminum pipe or aluminum alloy pipe.

Dry or porous surfaces shall be covered with polyethylene film prior to receiving concrete. Joints in the film shall be sealed with waterproof sealing tape.

Before concrete is placed, forms, reinforcements, water stops, anchor bolts, and embedments shall be rigidly secured in proper position; all dirt, mud, water, and debris shall be removed from the space to be occupied by the concrete; all surfaces which may have become encrusted with dried mortar or concrete from previous placement operations shall be cleaned; and the entire installation shall be acceptable to the Project Field Manager.

The surface of hardened concrete upon which fresh concrete is to be placed shall be rough, clean, and damp. Surface mortar shall be removed to expose the aggregate. The hardened surface shall be cleaned of all foreign substances (including curing compound), washed with clean water, and kept saturated during the 24 hour period preceding placement of fresh concrete.

Concrete shall be conveyed to the placement location by methods which will prevent the separation or loss of the ingredients.

Concrete shall be placed so as to avoid segregation of materials and the displacement of reinforcing or embedments. Concrete, dropped vertically, shall not be allowed to strike reinforcement or any other interference.

All laitance, debris, and surplus water shall be removed from concrete surfaces at top of forms by screening, scraping, or other effective means.

During and immediately after depositing, all concrete shall be thoroughly compacted, worked around reinforcements and embedments, and worked into the corners of the forms.

Compaction shall be in accordance with ACI 301. All concrete shall be compacted by means of mechanical immersion type vibrating equipment, except duct bank concrete shall be rodded or spaded, and concrete slabs 6 inches or less in thickness may be either vibrated or tamped.

#### **16803.10.1 Hot Weather Concreting**

Hot weather concreting shall comply with ACI 305R. A water reducing retarder shall be added to the concrete mix when the placement temperature of the concrete exceeds 75° F.

At air temperatures of 90° F or above, special procedures shall be adopted to keep the concrete as cool as possible during placement and curing. The temperature of the concrete when it is placed in the work shall not exceed 90° F.

Whenever the air temperature exceeds 95° F, membrane cured slabs shall be kept wet to promote cooling of the concrete during the curing period.

#### **16803.10.2 Cold Weather Concreting**

Cold weather concreting shall comply with ACI 306.1

Calcium Chloride shall not be used.

#### **16803.11 Construction Joints**

Construction joints shall be located and constructed as indicated on the drawings.

All construction joints subjected to differential hydrostatic pressure, shall be provided with a water stop.

Water stops shall be clean and free from coatings that would weaken the bond with concrete. Each water stop shall be continuous throughout the length of the construction joint. Junctions between adjacent sections shall be lapped 5 inches and securely bolted or welded together. All water stops shall be maintained in proper position until the surrounding concrete has been deposited and compacted.

#### **16803.12 Isolation Joints**

Isolation joints shall be located and constructed as indicated on the drawings. Isolation joint filler shall be firmly bonded to the previously poured joint face with a suitable adhesive. The new concrete shall be poured directly against the joint filler. Accessible edges of each isolation joint shall be sealed with the specified sealer.

#### **16803.13 Contraction Joints**

Contraction joints shall be soft cut sawn, or hand tooled joints 1/8 inch to 5/32 inch wide with a minimum depth of one fourth of the slab thickness. These joints shall be located as indicated on the drawings. Contraction shall be filled with a rigid or semi-rigid epoxy joint filler to support edges and prevent spalling. The filler shall have a Shore "A" Hardness number of 80.

#### **16803.14 Finishing Formed Surfaces**

All fins and other surface projections shall be removed from all formed surfaces except exterior surfaces that will be in contact with earth backfill. Exterior surfaces which will be exposed above grade and all interior surfaces, except interior surfaces which are not usually exposed to view, shall be cleaned and rubbed. Rubbing shall produce a smooth, uniform surface free of marks, voids, surface glaze, and discolorations.

Projecting ends of all form ties shall be removed and the resulting recesses shall be cleaned, wetted, and filled with patching mortar. Patches on rubbed surfaces shall match the texture of the adjacent concrete.

### **16803.15 Finishing Unformed Surfaces**

Unformed surfaces shall be finished by screeding and floating unless otherwise noted.

All exposed portions of the tops of equipment bases shall have a float finish.

Brooming shall follow the float finish for doorway stoops, and all other surfaces designated on the drawings to be broomed. Brooming shall be done with an acceptable steel or fiber broom. Brooming ridges shall be transverse to the normal traffic direction.

Surfaces of all interior slabs, and all other surfaces designated on the drawings to be troweled shall be steel trowel finished.

Troweling shall be performed after the second floating when the surface has hardened sufficiently to prevent an excess of fines being drawn to the surface. Troweling shall produce a dense, smooth, uniform surface free from blemishes and trowel marks.

Float finished surfaces shall be finished to provide a flat profile within 1/4 inch deviation as measured from a 10 foot straightedge. Trowel finished surfaces shall be finished to form a flat plane in which the profile shall not deviate more than 1/8 inch when measured from a 10 foot straightedge.

### **16803.16 Curing**

Concrete shall be protected from loss of moisture for not less than 7 days after the concrete is placed.

Troweled surfaces, except those which will receive a separate finish or coating, shall be cured with the membrane curing compound. Float finished surfaces, except those which will receive a separate finish, may be cured with either the membrane curing compound, or with water. Only water curing shall be used on the surfaces which will receive a separate finish or any coating.

#### **16803.16.1 Water Curing**

Water saturation of concrete surfaces shall begin as quickly as possible after initial set of the concrete. Water curing shall begin within 12 hours in dry weather and within 24 hours in damp weather. The rate of water application shall be regulated to provide complete surface coverage with a minimum of runoff. The application of water to formed surfaces may be interrupted for surface rubbing. The concrete surface shall not be permitted to become dry during such interruption.

After the rubbing has been completed, rubbed surfaces shall be covered with burlap which shall be saturated for the remainder of the curing period.

#### **16803.16.2 Membrane Curing**

Membrane curing compound shall be applied within 30 minutes after final finishing of the surface or as soon as possible without damaging the surface. Membrane curing compound shall be spray applied at a coverage of not more than 300 square feet per gallon. Membrane curing shall not be used on surfaces which will be covered at a later date with mortar, concrete, dampproofing, or any coating.

### **16803.17 Not Used**

### **16803.18 Repairing Defective Concrete**

Defects in formed concrete surfaces shall be repaired to the satisfaction of the Project Field Manager within 24 hours. All concrete which is porous, honeycombed, or otherwise defective to a depth in excess of 1 inch shall be cut out and removed to sound concrete, with edges square cut to avoid feathering. Cut surfaces shall be coated with epoxy bonding compound before the repair concrete is placed.

Defective concrete shall be replaced within 48 hours after the adjacent forms have been removed.

Concrete repair work shall not interfere with curing of surrounding concrete. Mortar and concrete used in repair work shall be adequately cured and shall be finished to match adjacent surfaces.

#### **16803.19 Duct Bank Concrete**

Concrete for duct banks shall be as specified in the Article 16803.4, Limiting Requirements, except that it shall have a slump of 6 inches, shall contain at least 610 pounds of cement per cubic yard, and shall contain no aggregate larger than 3/4 inch.

All reinforcing steel and other magnetic materials installed in duct banks shall be parallel to the lengths of the individual ducts unless they enclose all the ducts of the duct bank.

All construction joints shall conform to the requirements specified hereinbefore for watertight joints in Article 16803.11, Construction Joints. Hardened surfaces that are to receive additional concrete shall be prepared by being cleaned of all loose particles, scum, and laitance so that the aggregate is exposed. The hardened surface shall then be thoroughly wetted and a thin coating of neat cement mortar shall be spread over the entire surface just before the fresh concrete is placed. The fresh concrete shall be puddled and spaded to eliminate any honeycomb or lack of mortar at or near the joint.

Duct bank concrete shall be compacted by rodding or spading only. Care shall be taken while rodding concrete to avoid breaking ducts. Mechanical vibrators shall not be used. Concrete shall be worked around reinforcements and embedments, and worked into the corners of the forms.

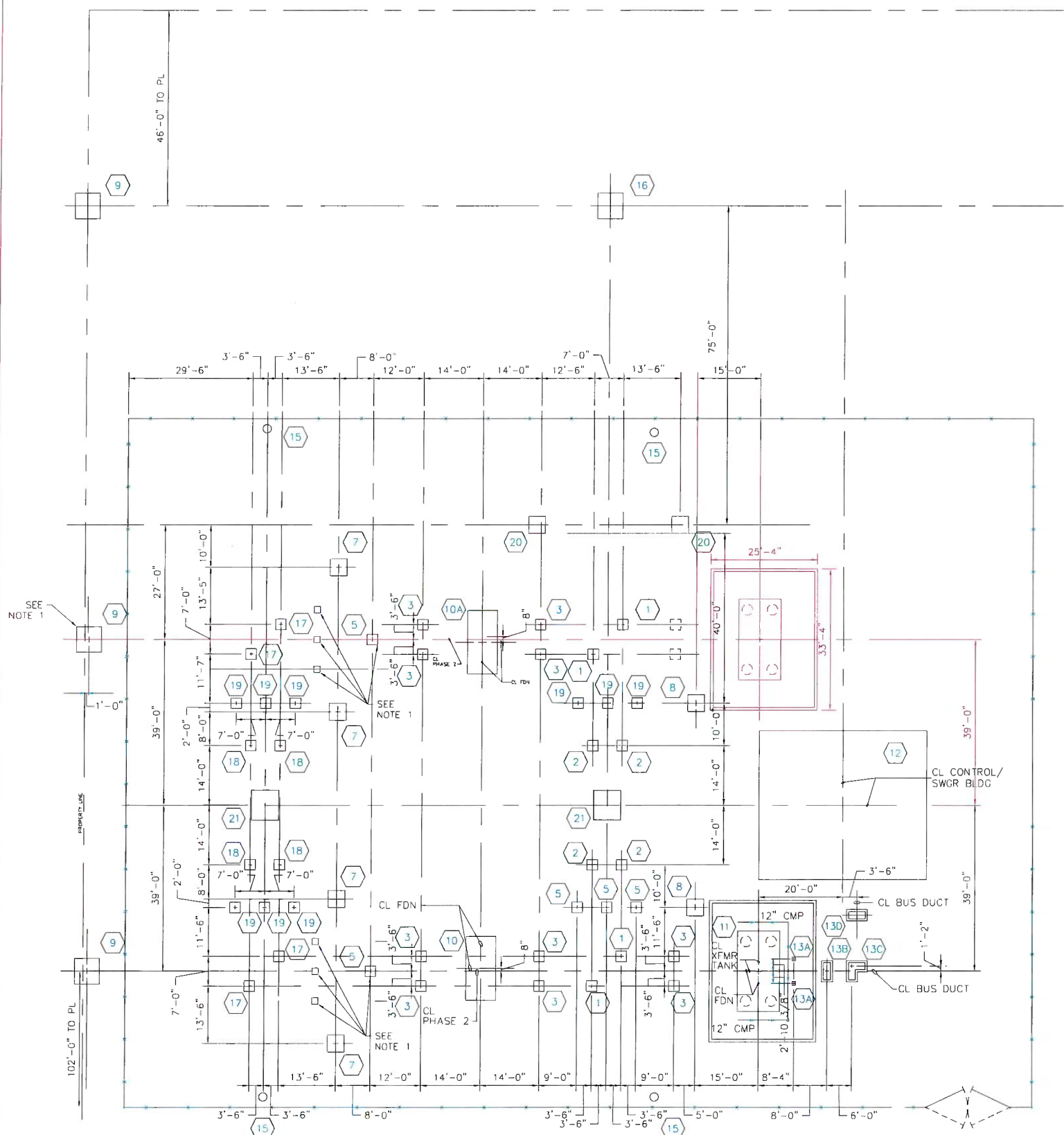
#### **16803.20 Tolerances for Bases**

The concrete bases and their embedments shall meet the following tolerance requirements in addition to those previously specified.

Concrete form dimensions and placement shall be within 1/2 inch of the plan dimensions and locations indicated on the drawings. The top of the forms shall be accurately set to the elevation required to produce finished surfaces within the specified tolerances.

The elevation of all points on all float finished surfaces shall be within 1/4 inch of the elevation indicated on the drawings. The elevation of all points on all trowel finished surfaces shall be within 1/8 inch of the elevation indicated on the drawings.

Anchor bolts and all other materials that are to be embedded in the concrete shall be accurately positioned and securely anchored. The center of each anchor bolt group or cluster shall be within 1/8 inch of the location indicated on the drawings. The center-to-center dimensions between the anchor bolts in a group or cluster shall be within 1/16 inch of the dimensions indicated on the drawings.



FOUNDATION PLAN  
SCALE: 1/16" = 1'-0"

FOUNDATION IDENTIFICATION	
DESCRIPTION	
1	115KV LOW BUS SUPPORT FDN
2	115KV HIGH BUS SUPPORT
3	115KV LOW DISCONNECT SWITCH STAND FDN
4	115KV SURGE ARRESTER STAND FDN
5	115KV CCVT STAND FDN
6	115KV LINE TRAP WITH CCVT STAND FDN
7	115KV LINE TERMINATION STRUCTURE FDN
8	LIGHTNING MAST FDN
9	115KV TRANSMISSION LINE DEADEND STRUCTURE FDN
10,10A	115KV CIRCUIT BREAKER FDN
11	115/13.8KV TRANSFORMER FDN
12	CONTROL/SWITCHGEAR BUILDING FDN (SEE DWG S9203)
13A,13B,13C,13D	BUS DUCT SUPPORT FDN (SEE DWG S9204)
14	
15	POST MOUNTED FLOODLIGHT FDN
16	NEW 115KV TRANSMISSION LINE DEADEND STRUCTURE FDN
17	115KV LOW BUS SUPPORT FDN
18	115KV LOW DISCONNECT SWITCH STAND FDN
19	115KV CCVT STAND FDN
20	115KV LINE TERMINATION STRUCTURE FDN
21	NEW 115KV CIRCUIT BREAKER FDN

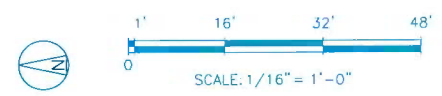
SEE DWG S9102 FOR FOUNDATION SECTIONS AND DETAILS

**LEGEND**

- PROPERTY LINE
- NEW 8' HEIGHT SECURITY FENCE
- 12" CMP --- 12" PERFORATED CORRUGATED METAL PIPE
- 12" CORRUGATED METAL SUMP PIPE WITH GRATE
- NEW FOUNDATIONS SPEC 7677.73.0201
- FUTURE FOUNDATIONS

**NOTES**

- ABANDON FOUNDATION IN PLACE DO NOT CUT ANCHOR BOLTS



NO	DATE	REVISIONS AND RECORD OF ISSUE	BY	CHK	APP	FLM
4	3-26-08	ISSUE FOR CONSTRUCTION				
3	02-02-94	REVISED PER CONSTRUCTION RECORD	KSI	OJL	JDN	
2	11-21-91	ADDED BUS DUCT FOUNDATIONS	KSI	OJL	JDN	
1	09-20-91	ISSUED FOR CONSTRUCTION-SPEC NO. 7677.73.0201	KSI		JDN	

I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEBRASKA

SIGNED \_\_\_\_\_ DATE \_\_\_\_\_ REG NO. \_\_\_\_\_

ENGINEER	RMP	DRAWN	CMR
CHECKED	RMP	DATE	06-19-07

HASTINGS UTILITIES  
115/13.8KV BYPASS ROAD SUBSTATION

SWITCHYARD  
FOUNDATION PLAN

PROJECT	DRAWING NUMBER	REV
145300-PPGA-S9101		6
CODE	AREA	

