General Supplemental Specifications

City of Dubuque

The City of Dubuque’s project will be constructed in accordance with the SUDAS Standard Specifications, 2017 Edition, and further revised by these General Supplemental Specifications.

Use Forms provided by the Jurisdiction only.

The SUDAS Standard Specification may be viewed at the Iowa SUDAS website http://www.iowasudas.org/specs.cfm or can be purchased only from:

Iowa State University, Institute for Transportation (InTrans)
SUDAS Program, Beth Richards - ISU Research Park
2711 S. Loop Drive, Suite 4700, Ames, Iowa 50010-8664
Phone: 515-294-2869, Fax: 515-294-0467, E-mail: brich@iastate.edu

Said SUDAS Standard Specifications as adopted for City of Dubuque projects, are hereby amended as follows:
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1st Revision: February 2015: Division 1 As shown. Divisions 2 through 11 as highlighted in RED.

2nd Revision: May 11, 2017: Division 1 as shown. Divisions 2 through 11 as highlighted in RED.
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1.03 - DEFINITIONS AND TERMS

Add the following definitions:

AGREED COST OF DELAY: Agreed Cost of Delay are a contract agreed upon amount of damages that will be paid by the contractor should they not be able to complete the contract within the time frame designated in the contract documents.

AGREEMENT: Public Improvement Contract.

BID LETTING: Opening of bid proposals.

BID PROPOSAL FORM: The document used to submit the bid.

BID TERM: The amount of time allotted to submit bid to the governing agency.

CLAIM: Legal demand or assertion by a claimant for compensation, payment, or reimbursement for a loss under a contract, or an injury due to negligence as allowed by Chapter 573 of the Iowa Code.

CONTRACT TIME: The number of days set forth in the Contract Documents Manual within which Milestone Completion, Substantial and Final Completion of the work must be achieved. The contract time may be adjusted only by change order.

DATE OF CONTRACT: The date assigned and referenced in the first paragraph of Specification Section 00510 - Public Improvement Contract.

DAYS: All calendar days including weekends and holidays.

DESIGNATED PORTION OF WORK: Any part of the Project identified by the Jurisdiction in the contract documents as a separate and distinct portion of the work that may be issued a Substantial and Final Completion Certificate before final acceptance of the entire improvement is granted by the Jurisdiction.

FINAL ACCEPTANCE: Final acceptance of construction shall be defined as final approval of the project only in the sense that it has been constructed, cleaned up, and completed in apparent substantial compliance with the contract documents. Said final acceptance is stipulated to mean a written acceptance by the Jurisdiction.

GOVERNMENT ENTITY REPRESENTATIVE: See Jurisdiction Representative.
IMPROVEMENT: The finished product resulting from following the directions and work instructions contained in the Contract Documents. Shall mean any public improvements as defined in Iowa Code Chapter 26 and shall also include highway, bridge, or culvert projects.

JURISDICTION REPRESENTATIVE: The person chosen by the governmental entity to represent its interests or the person designated in the contract documents as the party representing the governmental entity’s interest regarding administration and oversight of the project.

LUMP SUM ITEM: Unit of measurement for a bid item where no direct measurement will be made. The bid item amount is complete payment for all work described in the contract documents and necessary to complete the work for that item. The estimated quantities of lump sum work shown in the contract documents are approximate.

MAY: Confers a power.

MILESTONE: A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

MUST: States a requirement.

NOTICE OF AWARD: A written notice to the Contractor issued by the governmental entity informing the Contractor it that has been awarded the contract.

PARTIAL UTILIZATION: Use by Owner of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all of the Work.

PHYSICAL CONDITION: An existing man made structure.

SCHEDULE: A written plan for performing work or achieving the completion of the work by a set date which specifies the order and allotted time for each part of the work.

SHALL: Imposes a duty.

SITE: The lands and other places on, under, in, or through which the works are to be executed and any other lands or places provided by the Contractor or Jurisdiction for the purposes of constructing the Project together with such other places as may be designated in the Contract or subsequently agreed by the Engineer as forming part of the Site.
**SCHEDULE OF VALUES**: A schedule, prepared and maintained by the Contractor, allocating portions of the Contract Price to various portions of the Work, separated by specification division, and used as the basis of payment for reviewing the Contractor’s applications for payment.

**UNDERGROUND FACILITIES**: Includes but is not limited to all pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, or other such facilities or attachments, and any encasement containing such facilities, including those that convey electricity, gasses, steam, liquid petroleum products, telephone or other such communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

**UNIT PRICE ITEM**: The price bid for one unit of work as defined by the specifications.

*Delete the like named definitions and replace it with the following:*

**BID AMOUNT**: The aggregate sum obtained by totaling the amounts arrived at by multiplying the quantity of each bid item, as shown in the bid proposal schedule, by the unit price specified in the bid proposal schedule for that bid item, including lump sum bid items along with any additive or deductive alternate bid prices selected by the governmental entity. This is the amount offered to complete work by the Contractor, and is the amount used to determine the low bidder.

**CONTRACTOR**: The individual, firm, partnership, joint venture, corporation, or association licensed or otherwise authorized by law to do business where the work is located, and the heirs, executors, administrators, successors and assigns thereof, or the lawful agent of any such individual, firm, partnership, joint venture, corporation, association, or the surety thereof under the contract bond, constituting one of the principals to the contract and undertaking to perform the work herein specified. Where the pronoun “it” is used as referring to the word “Contractor” it shall mean the Contractor as defined above.

**ENGINEER**: For publicly owned projects, the Engineer is a Professional Engineer licensed in the State of Iowa and is the authorized representative of the Contracting Authority, unless otherwise designated by the Contracting Authority. For privately contracted projects, with improvements that are to become publicly owned, the Engineer is the Professional Engineer licensed in the State of Iowa and is the authorized representative of the Jurisdiction ultimately accepting ownership of the improvement unless otherwise designated by the Jurisdiction. For all other projects, the Engineer is the Professional Engineer licensed in the State of Iowa and is the owner’s authorized representative. The Engineer may act directly or through duly authorized representatives.

**CONTRACT DOCUMENTS**: The contract documents shall consist of those specifically listed in the Contract.

**IOWA DEPARTMENT OF TRANSPORTATION (DOT) STANDARD SPECIFICATIONS**: The Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction and the General Supplemental Specifications effective at the date of publication of the Notice to Bidders unless a different effective date is identified in the contract documents. Only the DOT specification sections referred to by specific section numbers are incorporated herein.
**SUBCONTRACTOR:** The subcontractor is any individual, firm, partnership, joint venture, corporation, or association licensed or otherwise authorized by law to do business where the work is located, to whom the Contractor, with the written consent of the governmental entity, sublets a part of the work.

**WORKING DAY:** Any calendar day, exclusive of Saturdays, Sundays, or a recognized legal City holiday, on which weather or other conditions (not under control of the Contractor) will permit construction operations to proceed for not less than ¾ of a normal work day in the performance of a controlling item of work.

**END OF SECTION**
### DIVISION 1 - SECTION 1020

#### GENERAL PROVISIONS AND COVENANTS

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1.04 - EXAMINATION OF THE CONTRACT DOCUMENTS AND SITE OF WORK

*Replace Article 1.04 – E. in its entirety with the following:*

E. The Jurisdiction does not warrant, impliedly or explicitly, the nature of the work, the conditions that will be encountered by the bidder, the adequacy of the contract documents for the Contractor to perform the work, or the conditions or structures to be encountered under any surface. Any such data supplied on the plans or other contract documents, or interpretation thereof by the Engineer, are merely for the convenience of the prospective bidders, who are to rely upon their own explorations of the site and the data supplied including by not limited to latent or subsurface site conditions, before completing and filing their proposal, except as provided in Section 1040, 1.09 - Changed Site Conditions.

1.05 - INTERPRETATION OF THE CONTRACT DOCUMENTS

*Replace Article 1.05 in its entirety with the following:*

Prior to submission of the bid, if any prospective bidder is in doubt as to the true meaning of any parts of the contract documents, the bidder may request an interpretation from the Engineer. Any interpretation of the contract documents will be made only by an addendum. It is the responsibility of all prospective bidders to ensure that they have received all addenda prior to the submitting of their bid.

1.06 – ADDENDUM

*Replace Article 1.06 in its entirety with the following:*

The Jurisdiction will post addenda at the website detailed in the Notice to Bidders and at the location of Contract Document distribution. It is the bidder’s responsibility to be aware of all addenda and Contract Documents, and to take any steps necessary to obtain a complete set of Contract Documents.
1.07 - PREFERENCE FOR LABOR AND MATERIALS

Replace Article 1.07 – A. in its entirety with the following:

A. By virtue of statutory authority, preference will be given to products and provisions grown and coal produced within the State of Iowa, and to Iowa domestic labor, to the extent lawfully required under Iowa Code Chapters 73 and 73A.

1.08 – TAXES

Delete Article 1.08 – A. in its entirety.

1.11 - IRREGULAR AND NONRESPONSIVE PROPOSALS

Replace Article 1.11 – B. – 1. in its entirety with the following:

1. If there are unauthorized additions, conditional or alternate bids, or irregularities of any kind.

1.13 - WITHDRAWAL OR REVISION OF THE PROPOSAL PRIOR TO OPENING OF PROPOSALS

Add the following after Article 1.13 – C.

D. A bidder will not be allowed to withdraw its proposal after the time set for receiving proposals.

1.14 - OPENING OF PROPOSALS

Replace Article 1.14 in its entirety with the following:

At the time and place set forth in the Notice to Bidders, proposals will be opened and read aloud. Proposals will be rejected if not accompanied by a bid security submitted in a separate, marked envelope. Submittals that do not include acknowledgement of each addendum to the contract documents may be rejected. Bid openings will be open to the public.
1.15 - LIMITATION ON WITHDRAWAL OF PROPOSALS AFTER OPENING OF PROPOSALS

Replace Article 1.15 – A. in its entirety with the following:

A. A bidder shall not withdraw its proposal for period of 60 calendar days after the date designated for opening of proposals. However, in those projects involving special assessments, and confirmation by the District Court, no bidder shall withdraw its proposal for a period of 30 calendar days after the confirmation of the assessments by the Court. A bidder will not be allowed to withdraw its proposal after the time set for receiving proposals.

Delete Article 1.15 – B. in its entirety.

END OF SECTION
## DIVISION 1 - SECTION 1030

### GENERAL PROVISIONS AND COVENANTS

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CITY OF DUBUQUE
SUPPLEMENTAL SPECIFICATION
SECTION 1030
APPROVAL FOR AWARD AND AWARD OF CONTRACT

1.01 – ACCEPTANCE OR REJECTION OF PROPOSALS

Replace Article 1.01 – D. in its entirety with the following:

D. Proposals may be rejected if the bidder has failed to promptly meet financial obligations undertaken in connection with other work under contract, or is in default on a previous contract, or has an unsatisfactory record of performance and cooperation on any such previous contract, or has failed to maintain satisfactory progress on work already under contract.

1.02 - RELEASE OF BID SECURITY

Replace Article 1.02 – A. in its entirety with the following:

A. After the proposals are opened, verified, and duly considered, the Jurisdiction will promptly release the bid security of all except the lowest responsive and responsible bidder awarded the Contract by the Jurisdiction. That bid security will be promptly released after the Jurisdiction has approved and executed the Contract. If all bids are rejected, all bid security will be promptly released.

1.03 - AWARD OF CONTRACT

Replace Article 1.03 – A. in its entirety with the following:

A. Contract Document Submittal: Within 10 calendar days after Receipt of Notice of Award from the Jurisdiction, unless otherwise provided in the contract documents, the Contractor shall present the signed and executed contract documents, including contract, performance, payment and maintenance bond; certificate of insurance; and all other items required by the contract documents. The performance, payment, and maintenance bond and insurance certificate shall meet the requirements of Section 1070, Part 3 – Bonds and Insurance as required by the Jurisdiction. The Jurisdiction will thereupon receive and file such documents and execute the contract.
Replace Article 1.03 – C. in its entirety with the following:

C. Failure to Execute the Contract: It is agreed by the bidder that upon its failure to enter into
the contract and furnish the necessary insurance certificate and performance, payment and
maintenance bond within 10 calendar days after Receipt of Notice of Award from the
Jurisdiction, the amount of the bidder’s bid security may at the Jurisdiction’s option be forfeited
and shall become the property of the Jurisdiction, to be retained not as a penalty, but as
liquidated damages. The award of the contract may then, at the discretion of the Jurisdiction,
be made to the next lowest responsive, responsible bidder, or the work may be re-advertised
or may be constructed by the Jurisdiction in any legal manner.

END OF SECTION
### DIVISION 1 - SECTION 1040

**GENERAL PROVISIONS AND COVENANTS**

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1.1 - INTENT OF THE CONTRACT DOCUMENTS

Replace Articles 1.01 – B. and C. in their entirety with the following:

B. The intent of the contract documents is to provide for the construction and completion in every detail of the work described or as may be amended. The Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work according to the plans, specifications, and terms of the contract documents. The silence or omission of the contract documents as to any detail shall be regarded as meaning only the best general practice is to prevail and only first quality materials and work are to be used.

C. To prepare the plans, specifications, and contract documents, the Engineer may have performed exploratory work to gain information relative to surface and subsurface conditions. This information, when shown in the contract documents, represents a summary of conditions as of the date the survey was made; it is only an approximate estimation of the site conditions made for the Jurisdiction to identify construction conditions and quantities and classes of work. This information in the contract documents does not guarantee that these and only these conditions will be encountered at the time of construction. The Bidder's bid shall be prepared based upon its examination of the site and its exploratory work.

1.2 CORRELATION OF THE CONTRACT DOCUMENTS

Replace Article 1.02 - in its entirety with the following:

The plans and specifications are intended to supplement each other so any work shown on the plans and not mentioned in the specifications, or vice versa, shall be as binding and shall be completed as if that work was mentioned or shown on both and to the true intent and meaning of said plans and specifications.

1.3 COORDINATION OF SPECIFICATIONS, PLANS, AND SPECIAL PROVISIONS

In Article 1.03 – A. delete the entire sentence after “8. SUDAS Standard Specifications”
After Article 1.03 – B. add the following article:

C. Certain Iowa Department of Transportation (IDOT) specifications and details are incorporated into the SUDAS standard specifications and the Jurisdiction's supplemental specifications. Only those IDOT Specifications referred to by specific section numbers are incorporated herein. IDOT Specifications not referred to by specific section numbers are not part of the SUDAS standard specifications or the Jurisdiction’s supplemental specifications or special provisions and may not be utilized or relied upon under any circumstance by the contractor.

1.4 - COORDINATION OF SPECIFICATIONS, PLANS, AND SPECIAL PROVISIONS

Replace Article 1.04 – B. in its entirety with the following:

B. The Contractor shall not take advantage of any error or omission in the plans or specifications or of any discrepancy between the plans or specifications.

1.06 - INCREASE OR DECREASE OF WORK

Replace Articles 1.06 – A. and B. in their entirety with the following:

A. Unforeseen work made necessary by the Engineer’s changes of the Contract plans or specifications, or work that is necessary for completion of the project, but for which no price is provided in the Contract, shall be done in accordance with the requirements of the specifications and as directed by the Engineer. The Jurisdiction reserves the right to make such alterations in the plans or in the quantities of work as may be considered necessary. Such alterations must be in writing by the Engineer in the form of a change order and shall not be considered as a waiver of any conditions of the contract documents or to invalidate any of the provisions thereof.

The Engineer shall notify the Contractor of the necessity for such extra work, stipulating its character and extent, and shall notify the Contractor as to whether the Engineer wants the Contractor to propose a unit price or, instead, a lump sum, for the extra work. Within 5 days of receipt of such notification, the Contractor shall advise the Engineer, in writing, of the compensation (as a unit price or lump sum, whichever has been requested by the Engineer) that the Contractor requests as compensation for the required extra work.
The Contractor’s request shall be itemized and reasonably detailed, and shall include all known or anticipated direct and indirect costs of the work, including but not limited to, the costs of all safety and other equipment, small tools, labor, subcontractor quotes, consumables, field office overhead, insurance, bonding, and profit.

B. Unless such alterations, increases, or decreases materially change the character of the work to be performed or the cost thereof, the altered work shall be paid for at the same unit prices as listed on the bid proposal form. If the total pay quantity of an item varies from the bid quantity by 25% or less, payment for that item will be made at the original contract unit price therefor. If, however, the character of the work or if either the unit or lump sum costs thereof are materially changed, due to changed site conditions, an allowance for extra work shall be made on such basis in the form of a written change order, in accordance with Section 1040, Articles 1.06 and 1.07 in advance of the performance of the work.

Add the following after Article 1.06 – B.

C. Extra Work: Extra work ordered by the Engineer, of a quality or class not covered by the contract, will be paid for either at an agreed price or on at the option of the Engineer, on a cost-plus basis.

1) Agreed Price Basis - For extra work ordered by the Engineer and performed on an agreed price basis, the Engineer and the Contractor shall enter into a written change order before the work is undertaken. This written agreement shall describe the extra work that is to be done and shall specify the agreed price or prices therefore.

2) Cost-plus Basis - Payment for such work shall be based either on a unit price or on a lump sum, to be agreed upon before the extra work is started; or, if no agreement as to price can be reached, the Engineer may order that the work will be completed and paid for on a cost-plus basis in accordance with the terms of Section 1040, Article 1.10.

D. Eliminated Items: If an item is entirely eliminated from the Contract, the Governmental Entity will pay the Contractor only for costs which it incurred in connection with the eliminated item prior to the date upon which the Engineer provided the Contractor with written notice of said elimination. If the Contractor had ordered project materials (that conformed to all pertinent Contract requirements) prior to the aforesaid date of notification, and if the orders for said materials could not have been canceled within 2 business days after the date of notification, the Governmental Entity shall pay the Contractor for said materials at their actual cost to the Contractor. In such a case, the materials shall become property of the Governmental Entity and the actual cost of any further handling necessary to deliver them to the Governmental Entity shall be assumed by such.
If the materials are returnable to their vendor and if the Engineer so directs, the Contractor shall return the materials to the vendor and the Governmental Entity shall reimburse the Contractor (i) for any reasonable charges made to the Contractor by the vendor for the return of the materials, and (ii) for the actual costs to the Contractor of its handling the materials in returning them to the vendor. Such charges or actual costs to be paid by the Governmental Entity shall be computed as though the work was being paid for on a cost-plus basis under Section 1040, Article 1.06 C.

Should the Engineer determine any Contract items, or portion of project work contained in a lump sum item, to be unnecessary for completion of the Project, the Engineer may eliminate such items or portion of work from the Contract. Such action shall in no way invalidate the Contract; and no allowance for any items, or portion of work contained in a lump sum item so eliminated, will be made by the Engineer in making final payment to the Contractor, except for (a) such actual work as may have been done on the items, or portion of work contained in a lump sum item, prior to the Engineer's notice to the Contractor that the items or work had been eliminated; and (b) such related material as may have been purchased for the Project prior to said notice. Such charges or actual costs to be paid by the Governmental Entity shall be computed as though the work was being paid for on a cost-plus basis under Section 1040, Article 1.06 C.

1.07 - CHANGE ORDERS

Replace Articles 1.07 – A. and B. in their entirety with the following:

A. Field Directive: The Engineer or Jurisdiction Representative shall have authority to give field directives for minor or incidental changes in the work not involving extra cost and not inconsistent with the proposed purpose of the work. The Engineer or Jurisdiction Representative shall issue the field directive in writing and it must be signed by the Engineer/Jurisdiction Representative and the Contractor's Representative.

B. Written Change Orders: The Engineer may in his/her discretion, and subject to formal approval by the Jurisdiction, issue written change orders changing the scope of the work and/or adjusting the amount to be paid to the Contractor for performing such work; however, the Engineer may, in case of emergency of endangering life or property, orally authorize by field directive such a change order without formal approval by the Jurisdiction. Each written change order for extra work shall be explicit in its instruction and shall be duly executed by the Engineer/Contractor/Jurisdiction. One copy of said change order shall be filed with each. Each change order shall stipulate the amount and method of payment.
C. **Cost of Extra Work:** If a mutually agreeable price cannot be reached by the Contractor and Jurisdiction, a percentage markup will be allowed to the Contractor for extra work performed on a cost-plus basis and shall be in accordance with the following:

1) For all extra work costs listed below, the Contractor’s fee for overhead and profit shall be 15%.
   a. These costs included shall be regular payroll costs including salaries and wages plus the cost of fringe benefits.
   b. Cost of all materials and equipment used and incorporated into the Work.
2) For all extra work costs listed below the Contractor’s fee for overhead and profit shall be 5%.
   a. Payments made by Contractor to a subcontractor for work performed by a subcontractor.
   b. Payments made by a subcontractor to a subsubcontractor for work performed by a subcontractor. The actual subcontractor completing the work will be allowed to mark up their direct costs by 15% as in 1.07.C.1 above.
3) No markup fee shall be payable to the Contractor for:
   a. Special consultants employed to provide professional, testing and inspection type services directly related to accomplishing the Work.
   b. Transportation and travel costs incurred by the Contractor’s employees.
   c. Rental and maintenance of any construction equipment, hand tools, or similar related in any way to constructing the extra work.
   d. Cost fuel, utilities, sanitary facilities or similar.
   e. The purchase of additional insurance or bonding to maintain the requirements of the Contract.
   f. Any other direct cost not specifically mentioned in Section 1040, Article 1.07.C.
4) Documentation of extra work costs: For all work performed on a cost-plus basis, the Contractor shall furnish documentation and records that clearly establish the true cost of the extra work. Documentation and records shall meet the standards of generally accepted accounting practices.
5) If a contract price deduction is due to the Governmental Entity, than actual costs of the deducted work will be calculated plus a deduction in the Contractor’s fee for overhead and profit in the amount equal to 5% of the calculated deduction will be added to the total contract price deduction.
6) Costs not allowed:
   a. No part of the salary or expenses of anyone connected with the Contractor’s forces above the grade of Site Superintendent, who provides general supervision of project work, will be included in the above payment calculations. The Engineer reserves the right to determine the number and type of personnel to be employed for the cost-plus Project work.
   b. The Jurisdiction will not pay rental rates for small tools needed to complete the cost-plus Project work.
   c. Any type of office cost other than those for the Contractor’s office at the work site.
   d. Any cost due to Contractor’s negligence.
1.08 - SITE CONDITIONS

Replace Article 1.08 – A. in its entirety with the following:

A. The Contractor is required by Section 1020, 1.04 -Examination of the Contract Documents and site of the work to make reasonable investigation and examination to determine latent and subsurface conditions at the site of the work prior to preparing its proposal. The Jurisdiction makes no guarantee of any conditions, latent or subsurface, at the site of the work. The Jurisdiction is not obligated to make any payments to the Contractor if latent or subsurface conditions are not consistent with the technical reports or other information provided by the Engineer in the Contract Documents.

1.09 - CHANGED SITE CONDITIONS

Replace Article 1.09 – A. in its entirety with the following:

A. Latent or Subsurface Conditions:

1. If the Contractor encounters latent or subsurface conditions differing materially from those indicated in the Contract Documents which the Contractor could not have discovered by a reasonable site investigation and examination of the type customarily undertaken by prudent and competent contractors, and if these changed conditions are considered by the Contractor as a basis for extra work in addition to the contract price, the Contractor shall within two working days after discovery thereof notify the Engineer of its claim in writing. Before disturbing the site at which the latent or subsurface condition is alleged to exist, the Contractor shall give the Engineer the opportunity to inspect the same.

2. After inspection by the Engineer, the Jurisdiction may, in its discretion, authorize the Contractor to proceed with or abandon the work. The Contractor shall resume construction operations pending a decision regarding its claim by the Jurisdiction. Failure of the Contractor to give written notice within two working days of discovering the conditions and to give the Engineer full opportunity to inspect the subsurface condition before disturbing the site shall be deemed a waiver by the Contractor of all claims for extra work arising out of the alleged condition.
3. Latent or subsurface conditions that do not materially differ from those shown on the plans shall not form the basis for additional compensation. No additional compensation or extension of time shall be provided for conditions that do not materially differ, regardless of the nature of the condition encountered.

1.10 - DISPUTED CLAIMS FOR EXTRA COMPENSATION

*Delete Article 1.10 in its entirety.*

1.12 - ORAL AGREEMENTS, CONVERSATIONS, AND INFORMAL COMMUNICATIONS

*Replace Article 1.12 in its entirety with the following:*

No oral agreement or conversation made or had with any officer, agent, or employee of the Jurisdiction, and no informal written communication from any officer, agent, or employee of the Jurisdiction, occurring either before or after execution of the contract, shall affect or modify any of the terms or obligations contained in any of the contract documents. Such oral contact and such informal writings shall be considered as unofficial information and in no way binding upon the Jurisdiction. Only written change orders, as set forth in Section 1040, Article 1.07 shall be used to modify the contract.

1.13 - ERRORS OR OMISSIONS

*Replace Article 1.13 in its entirety with the following:*

The Contractor shall examine the contract documents before beginning construction work. If errors or omissions are discovered in the contract documents, the Contractor shall call them to the attention of the Engineer before proceeding with the work. In case revised contract documents of a supplementary or explanatory nature are necessary or desirable for clarification, or to correct any errors or omissions, they will be issued by the Engineer with approval of the Jurisdiction in accordance with Section 1040, Article 1.07.

**END OF SECTION**
## DIVISION 1 - SECTION 1050
### GENERAL PROVISIONS AND COVENANTS

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CITY OF DUBUQUE
SUPPLEMENTAL SPECIFICATION
SECTION 1050
CONTROL OF WORK

1.01 - AUTHORITY OF THE ENGINEER

Replace Articles 1.01 – A. and C. in their entirety with the following:

A. The work included in the contract is to be completed to the satisfaction of the Engineer & Jurisdiction, and the decision of the Engineer as to the true construction and meaning of the contract documents, plans, specifications, estimates, and as to all questions arising as to proper performance of the work, shall be final, except as provided in Section 1040, 1.10 - Disputed Claims for Extra Compensation.

C. The Engineer & the Jurisdiction shall decide any and all questions that may arise regarding the quality or acceptability of materials furnished and work performed, the rate of progress of the work, including cleanup and restoration, acceptable fulfillment and performance of the contract on the part of the Contractor, and compensation due. The decision of the Engineer in such matters shall be final except as provided in Section 1040, 1.10 - Disputed Claims for Extra Compensation.

1.03 - COOPERATION BY THE CONTRACTOR

Replace Article 1.03 - B., C., and D. in their entirety with the following:

B. A designated, competent Superintendent (the Superintendent) of the Contractor shall be present on the site of the work continually during its progress. This Superintendent must be capable of reading and thoroughly understanding the contract documents and experienced in the type of work being performed. This Superintendent shall supervise, direct, and control the Contractor's operations, personnel, and work, and oversee the Subcontractor's operations.

C. The Contractor shall give the Engineer written notification of the name of the Superintendent. The Superintendent shall receive from the Engineer all explanations and directions necessary for the satisfactory prosecution and completion of the work.

D. The Contractor shall not cause any unnecessary delay or hindrance to other Jurisdiction contractors on the work and shall be required to cooperate with other Jurisdiction contractors to the fullest extent.

1.4 - COOPERATION WITH OTHER CONTRACTORS
1.04 - COOPERATION WITH OTHER JURISDICTION CONTRACTORS

B. If any part of the Contractor's work depends on proper execution or results on the work of any other Jurisdiction contractor, the Contractor shall inspect and promptly report to the Engineer any defect in such work by another Jurisdiction contractor that renders it unsuitable for such proper execution and results. The Contractor's failure to inspect and report such defects shall constitute an acceptance of the other Jurisdiction contractor's work as fit and proper for the integration or incorporation of its work, except as to defects that may develop in the other Jurisdiction contractor's work after the execution of the Contractor's work.

C. Wherever work being done by the Jurisdiction's forces or by other Jurisdiction contractors is contiguous to work covered by the contract, the respective rights of the various interests involved shall be established by the Engineer, in order to secure the completion of the various portions of the work in general harmony.

1.4 - COOPERATION WITH OTHER CITY CONTRACTORS

Delete Articles 1.04 – D. and E. in their entirety.

1.5 - SHOP DRAWINGS, CERTIFICATES, AND EQUIPMENT LISTS

Replace Article 1.05 – B., Paragraph 1 in its entirety with the following:

B. Submission of Equipment Lists:

1. If specified in the contract documents, as soon as practicable after award of contract and before any items of material or equipment are purchased, the Contractor shall submit to the Engineer for review a complete list of the principal fixtures and equipment to be incorporated into the work.
1.6 - CONFLICT AVOIDANCE

*Delete Article 1.06 in its entirety.*

1.7 - EXAMINATION OF MATERIALS AND WORK

*Replace Article 1.07 – A. in its entirety with the following:*

A. The Contractor shall furnish the Engineer and its agents every reasonable opportunity to ascertain whether the work and materials are in conformity with the contract documents. At any time before final acceptance of the work, at the request of the Engineer, the Contractor shall remove or uncover portions of the work for examination. After examination, the Contractor shall restore such portions of the work to the standards required by the contract documents.

1.8 - REMOVAL OF DEFECTIVE WORK AND MATERIALS

*Replace Article 1.08 – A. in its entirety with the following:*

A. Defective work or materials may be rejected by the Engineer any time before the Final Completion of the Project. Notice of such rejection must be given in writing by the Engineer. Such rejected work shall be corrected to the satisfaction of the Engineer. Failure or neglect on the part of the Engineer to reject unsatisfactory material or reject inferior workmanship shall not release the Contractor, nor shall it be construed as an acceptance of such work, nor shall the final acceptance of such work bar the Jurisdiction from recovering damages on account thereof.

*Add Article 1.08 – D.:*

D. No compensation will be paid to Contractor for defective work or materials, or for the satisfactory removal, correction, or disposal thereof.

1.09 - UNAUTHORIZED WORK

*Replace Article 1.09 – B. in its entirety with the following:*

B. Unauthorized work may be ordered by the Jurisdiction in its sole discretion to be removed and replaced immediately at the Contractor’s expense.
1.11 - PROVIDING JOB SITE UTILITIES

Replace Article 1.11 – A. in its entirety with the following:

A. The Contractor shall make all necessary arrangements for the provision to the job site of all required utilities for the execution of the work on the project. The Contractor shall arrange its work so it will not be delayed because such regulations or requirements relating to the use of utilities. All costs for the provision of utilities for the execution of the work on the project shall be borne by the Contractor.

1.14 - FINAL INSPECTION AND ACCEPTANCE

Replace Article 1.14 in its entirety with the following:

A. As soon as practicable after the completion of the work and the contractor deems the project ready for its intended use, the Contractor shall notify the Engineer in writing that the project is complete and request the Substantial Completion inspection by the Engineer. The Engineer, Jurisdiction, and Contractor shall promptly make a joint inspection of the completed work so that the Engineer can make a determination if the project is Substantially Complete.

B. If the inspection reveals any defects in the work as contemplated by the Contract Documents, the Engineer shall notify the Contractor in writing that the work is not Substantially Complete and shall provide a list of such defects. The defective work shall be repaired or corrected so that it meets the requirements of the Contract Documents. The cost of all such repairs and replacement shall be borne by the Contractor, and no extension of the contract time shall be granted because of the time required to remedy such defects.

C. After the Substantial Completion Inspection is held and the Engineer determines that the requirements for Substantial Completion have been satisfied, the Engineer will prepare a dated “Notice of Substantial Completion”. Attached to the Notice will be a list of items not yet complete or needing correction. The Notice shall be provided to the Jurisdiction for their review. Upon receipt of the Notice, the Jurisdiction will have seven days to provide the Engineer with written objection to the Notice or to the attached list of items. The Engineer will then have seven days to consider the Jurisdiction’s objections and either issue the Substantial Completion Certificate with a final list of items to complete and correct, or notify the Contractor that the work is not Substantially Complete and provide an explanation why.
In order for the Project or a designated portion of work to be deemed Substantially Complete by the Engineer, one of the following must occur:

1. Completion of the work on the public improvement project, or the highway, bridge, or culvert project, or when the work on the public improvement or the highway, bridge, or culvert project has been substantially completed in general accordance with the terms and provisions of the contract.

2. The work on the public improvement or on the designated portion is substantially completed in general accordance with the terms of the contract so that the governmental entity or the department can occupy or utilize the public improvement or designated portion of the public improvement for its intended purpose. This subparagraph shall not apply to highway, bridge, or culvert projects.

3. The public improvement project or the highway, bridge, or culvert project is certified as having been substantially completed by either of the following:
   (a) The architect or engineer authorized to make such certification.
   (b) The authorized contract representative.

4. The governmental entity or the department is occupying or utilizing the public improvement for its intended purpose. This subparagraph shall not apply to highway, bridge, or culvert projects.

D. When the Contractor has completed all work items listed with the Substantial Completion Certificate, the Contractor shall prepare a written notice requesting final inspection and issuance of the Certificate of Final Completion. Once the Engineer determines that the Project may be finally complete, the Engineer shall inspect the work as soon as practical. After the final completion inspection is held and the Engineer determines that the requirements for Final Completion have been satisfied, the Engineer will prepare a “Tentative Notice of Final Completion”. If the Engineer’s inspection determines that the work is incomplete or defective, the Engineer shall notify the Contractor in writing that the work is not ready for Final Completion and shall provide a list of the defects.

Once the Tentative Notice of Final Completion is issued, the final payment shall be processed in accordance with Section 1090, Article 1.08. After the final payment application has been received and approved by the Jurisdiction, it shall proceed to request that the Jurisdiction’s City Council approve the acceptance of the Project and the City Engineer’s recommendation to issue the Certificate of Final Completion.

END OF SECTION
## Division 1 - Section 1060

### General Provisions and Covenants

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CITY OF DUBUQUE
SUPPLEMENTAL SPECIFICATION
SECTION 1060
CONTROL OF MATERIALS

1.01 - MATERIALS SOURCE OF SUPPLY AND QUALITY REQUIREMENTS

Replace Article 1.01, Paragraphs B. and E. in their entirety with the following:

B. For the convenience of the Contractor, and when convenient to the Engineer, materials may be inspected at the site of production. Materials tested and found in compliance at the site of production may be later inspected for reasonably close conformity and normally will not be rejected except for obvious mistakes, contamination, quality change, or mishandling.

E. Use of materials on the basis of the producer's certification, quality control tests, and evaluations may be permitted or required. The Engineer may require specific data obtained by qualified persons and procedures be provided with the material, when delivered. Certified gradation testing by a certified aggregate technician will be required for all aggregates to be furnished by the Contractor, and shall be done according to the current Iowa DOT Materials I.M. 209 and as specified in Section 3010, Article 1.05.

1.02 - ALTERNATE PROCESSES, EQUIPMENT, OR MATERIALS.

Replace Article 1.02, Paragraph B.1.b.4. in its entirety with the following:

4) It is the sole responsibility of the Contractor to pre-qualify any alternate product proposed for its intended use for compliance with all applicable codes within the Jurisdiction prior to submittal to the Engineer for consideration.

Replace Article 1.02, Paragraphs B.1.d.e,f.h,i. in their entirety with the following:

d. If the bidder/contractor desires to use alternate processes, equipment, or materials for those as specified in the contract documents, the bidder/contractor shall secure the written approval of the Engineer and the Jurisdiction before entering an order therefore.

e. Proposed alternative processes, equipment, or materials that will in the discretion of the Engineer and the Jurisdiction meet, or exceed, the designated standards may be given written approval to be used on the project as an “Approved Equal” or “Equivalent” to the specified item.

f. If approval as an “Approved Equal” or “Equivalent” is given by the Engineer and the Jurisdiction, such approval will be on the condition that the bidder/contractor shall be fully responsible for producing construction work in conformity with contract requirements.
h. The contractor shall not be entitled to any additional compensation if the Engineer and the Jurisdiction do not approve the contractor’s request for alternate processes, equipment, or materials after the contract is awarded. The bidder/contractor is solely at risk until the Engineer and the Jurisdiction issue written notification of “Approved Equal” or “Equivalent.”

i. The Jurisdiction reserves the right to adjust the contract price when the cost of an “Approved Equal” or “Equivalent” is less than the cost of the specified item. The contractor shall estimate the net savings of the proposed alternate and if the Engineer and the Jurisdiction approve the proposal, a change order may be processed to reduce the contract by a negotiated amount agreed to by the Jurisdiction and the Contractor.

Add the following after Article 1.02 – B., Paragraph 2:

3. Consideration of Alternate Processes, Equipment, or Materials by the Jurisdiction or the Engineer shall not constitute a basis for delay or productivity claims if timely approval of the substitute is not granted. If consideration or use of alternative processes, equipment or materials will impact the Contractor’s schedule adversely, the Contractor must proceed with the work by complying with the approved Contract Documents.

1.03 - SAMPLES AND TESTING

Replace Articles 1.03 - A, B & C in their entirety with the following:

A. No materials for which samples are required by the Contract Documents shall be incorporated into the work, until the samples have been tested and approved by the Engineer for use on the project. The Contractor shall coordinate the collection, forwarding and testing of samples as the Contract Documents and Engineer require.

B. It is the Contractor’s responsibility to provide samples in a timely manner that allow time for testing without delaying the work. If necessary, work will be delayed or suspended, at no cost to the Jurisdiction, to permit the completion of all specified tests and examinations. Tests made on the samples of materials utilized on the project shall be paid for as specified in the Contract Documents.
C. All tests shall be made by the Jurisdiction’s designated testing laboratory or at an independent testing laboratory that the Engineer shall approve in advance of any testing of samples. Except as otherwise specified, the testing of materials furnished for use under these specifications shall be done according to the methods described in the specific ASTM, AASHTO, AWWA, or other authorized specifications for each material. Results of all tests shall be submitted to the Engineer for review.

Add the following after Article 1.03 – C.:

D. The Contractor must employ a professional engineer, licensed in the State of Iowa, for the purpose of conducting proctor testing on all aggregates and soil materials to be incorporated into the project. The proctor test results must be provided to the Jurisdiction, and will be used by the Jurisdiction for density testing during the project. The proctor test must be conducted no more than 30 days prior to the start of the work. Additional sampling and testing may be conducted by the Jurisdiction at its sole discretion during the project to verify conformity of the materials.

1.04 - STORAGE OF MATERIALS

Replace the entire Article with the following:

The Contractor shall be responsible for care and storage of materials and equipment delivered to the work site or purchased for use and stored off site. Materials and equipment delivered to the work site and damaged to an extent that it no longer meets the contract specifications before actual incorporation in the work shall be rejected by the Engineer even though they may have been previously acceptable. The Contractor shall store all materials for the Project in a way that ensures that their quality and fitness for the Project will be preserved, and that the Engineer will have easy and prompt access to them for inspection purposes. Materials shall be kept on wooden platforms or on other hard, clean surfaces and not on the ground.

Offsite storage and partial payment of such materials and equipment is allowed only if approved in advance, at the sole discretion of the Engineer. In order for the Engineer to consider allowing off-site storage and payment, the materials and equipment must be segregated from other materials, clearly labeled as being owned by the Jurisdiction for use on the identified Project, otherwise handled in compliance with this Article, and stored in accordance with the manufacturer’s recommendations. All such materials and equipment must be readily-available for inventory and inspection by the Engineer. Proof of insurance meeting the requirements of the Contract Documents must be provided in advance of the Engineer’s approval.
1.07 - MATERIALS SUPPLIED BY THE CONTRACTOR

Replace Article 1.07 – B. in its entirety with the following:

B. All materials and equipment that become the property of the Jurisdiction as specified in the Contract Documents shall be unused and newly produced or manufactured with original materials, shall be state of the art for that material or equipment, and shall be properly stored to protect the integrity of the material and equipment.

END OF SECTION
### DIVISION 1 - SECTION 1070

#### GENERAL PROVISIONS AND COVENANTS

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CITY OF DUBUQUE  
SUPPLEMENTAL SPECIFICATION 
SECTION 1070  
LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

1.01 - MUNICIPAL REGULATIONS, STATE, AND FEDERAL LAWS AND REGULATIONS

Replace Article 1.01 – B.in its entirety with the following:

B. References in these specifications to particular chapters or sections of the above referenced laws, ordinances, orders & regulations shall be as they appear in their current version at the time of Contract Award. In the event such chapters or sections are subsequently amended, the specifications shall be deemed to refer to those chapters or sections as amended. If as a result of such amendment, the Contractor incurs additional cost or delay the conditions of Section 1040 shall apply.

Add the following after Article 1.01 B.

C. For all projects funded by the Iowa Department of Transportation or the Federal Highway Administration, the following shall apply:

During the performance of this contract, the Contractor (for itself), its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

1. Compliance with Regulations: The Contractor shall comply with the Regulations relative to non-discrimination in Federally assisted programs of the DOT Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

2. Nondiscrimination: The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, national origin, sex, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
3. Solicitations for Subcontracts, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, national origin, sex, age, or disability.

4. Information and Reports: The Contractor shall provide all information and reports required by the Regulations or directives issued pursuant there to, and shall allow access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Contracting Authority, the Iowa DOT, or FHWA to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to the Contracting Authority, the Iowa DOT, or the FHWA as appropriate, and shall set forth the efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, the Contracting Authority, the Iowa DOT, or the FHWA shall impose such contract sanctions as they may determine to be appropriate, including, but not limited to:

   a. Withholding of payments to the Contractor under the contract until the contractor complies, and/or

   b. Cancellation, termination, or suspension of the contract, in whole or in part.

6. Incorporation of Provisions: The Contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The Contractor shall take such action with respect to any subcontract or procurement as the Contracting Authority, the Iowa DOT, or the FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Contractor may request the Contracting Authority or the Iowa DOT to enter into such litigation to protect the interests of the Contracting Authority or the Iowa DOT; and, in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.
1.03 - PERMITS AND LICENSES

Replace Article 1.03 in its entirety with the following:

The Contractor shall procure and pay for all necessary permits and licenses for the construction of the work as specified in the Contract Documents, including but not limited to temporary excavations, obstructions, enclosures, and street openings arising from the construction and completion of the work described in the Contract Documents. The Contractor shall be responsible, including payment of any penalties, for all violations of the law for any cause in connection with the construction of the work or caused by the obstruction of roads, streets, highways or sidewalks. The Contractor shall provide a copy of all requisite notices and issued violations to the Jurisdiction.

1.05 - USE AND OCCUPANCY PRIOR TO COMPLETION OF CONTRACT

Replace Article 1.05 in its entirety with the following:

The Contractor shall complete any portion or designated portion of work in such order and at such time as the Contract Documents require. The Jurisdiction shall have the right to use any Substantially or Finally Completed portions of the work at any time in accordance with Articles 26.13 and 573.15A of the Iowa Code and Section 1050, Article 1.14 of these supplemental specifications, but such possession and use shall not be deemed a Final Acceptance of the work so used or any part thereof. If the Jurisdiction requests partial utilization prior to Substantial Completion of any portion of the work and such use increases the cost of or delays the work, the Contractor shall be entitled to such extra compensation or extension of time, or both, in accordance with Section 1040, Article 1.06. When improvements are released to the Jurisdiction, at the Jurisdiction’s sole request, for public use prior to Substantial Completion and Final Completion unless specified in the Contract Documents, the Contractor will be relieved of the responsibility for damages due to the elements or due to ordinary public use, but only the released and used portion of the work. Such release by the Contractor to the Jurisdiction for public use shall be directed in writing by the Jurisdiction.

1.06 - CONTRACTOR’S RESPONSIBILITY FOR THE WORK.

Replace Article 1.06 – A. in its entirety with the following:

A. Until the Substantial Completion Certificate is issued by the Jurisdiction, the project shall be in the custody of and under the charge, care, and control of the Contractor, who shall take every precaution against damage to the work by action of the weather elements or any other cause.
The Contractor shall rebuild, repair, restore, and make good at its own expense, all damages to any portion of the work before the Substantial Completion Certificate is issued by the Engineer. Issuance of any estimate or partial payment for work done, will not be considered final acceptance of any work completed.

Delete Article 1.06 – B. in its entirety.

1.09 - WAIVER OF LEGAL RIGHTS.

Replace Articles 1.09 A. and B. in their entirety with the following:

A. The Jurisdiction shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and final acceptance of the work and payment therefore, from showing the true amount and character of the work performed and the materials furnished by the Contractor, or from showing that any such measurement, estimate, or certificate is untrue or incorrectly made, or from showing that the work or materials do not in fact conform to the contract documents.

B. The Jurisdiction shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor and its surety such damages as it may sustain, and all outlay and expense it incurs, by reason of the Contractor's failure to comply with the terms of the Contract. The Final Acceptance by the Jurisdiction or any of its representatives, any payment for final acceptance of the whole, or any Substantially Completed designated portion of work, or any extension of time, or any possession taken by the Jurisdiction, shall not operate as a waiver of any portion of the contract, or any powers herein reserved, or any right to damages herein provided. A waiver of any breach of the contract shall not be a waiver of any other subsequent breach.

1.10 - ACCEPTANCE BY THE JURISDICTION – NOT A WAIVER OF CONTRACTOR’S OBLIGATIONS OR A WAIVER OF THE JURISDICTION’S RIGHTS

Replace Articles 1.10 – C. and D. in their entirety with the following:

C. Acceptance or approval by the Engineer of the shop drawings as therein provided shall not operate to relieve the Contractor of its obligation (1) to perform the work as required by the contract documents in a workmanlike manner and according to the standards for construction applicable to the type of work covered by this contract; and (2) to provide materials and equipment meeting the quality requirements as provided in the contract documents. The Jurisdiction assumes no responsibility for errors in shop drawings and assumes the Contractor will use materials complying with requirements of the contract documents or, where not specified, those of sound and reasonable quality, and will erect the subjects of such shop drawings according to recognized standards of first quality work or, when specified, according to standards of the contract documents.

D. No such acceptance of the shop drawings by the Jurisdiction shall constitute a waiver by the
Jurisdiction of its right to subsequently reject defective work, materials, or equipment. Further, no such acceptance of the shop drawings by the Jurisdiction or the Engineer shall be deemed a waiver by the Jurisdiction of its right to recover from the Contractor all losses, damages, outlay, or expense it incurs, which is attributable to such defective work, materials or equipment, or manufactured assemblies, nor shall such acceptance or approval of the shop drawings be deemed a waiver of the Jurisdiction's right to indemnity from the Contractor for damage or injury to third parties occasioned by such defective work, materials, or equipment.

1.12 - CONSENT TO JURISDICTION OF IOWA DISTRICT COURT OR FEDERAL DISTRICT

Replace the entire Article 1.12 with the following:

1.12 – DISPUTE RESOLUTION PROCEDURE

A. Basis of Claim for Extra Compensation:

1. All claims or counterclaims, disputes, or other matters in question between the Jurisdiction and Contractor arising out of or relating to the Contract Documents or the breach thereof shall be decided by a board of arbitrators. This agreement to arbitrate and any other agreement or consent to arbitrate entered into will be specifically enforceable under the prevailing law of any court having jurisdiction.

2. No arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder, or in any other manner any other individual or entity (including the Engineer) who is not a party to the Contract unless:

a. the inclusion of such other individual or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration; and

b. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings.

3. In any case where the Contractor believes extra compensation is due for work or material beyond the scope of the work under the contract and not ordered by the Engineer as extra work as defined herein, the Contractor shall notify the Engineer in writing of its intention to make claim for such extra compensation before beginning the work on which the claim is based. The Contractor shall not proceed with that work until the Contractor and the Jurisdiction have executed a change order with respect to extra compensation.

4. The Jurisdiction shall be responsible for damages attributable to the performance, nonperformance, or delay, of any other contractor, governmental agency, utility agency, firm, corporation, or individual authorized to do work on the project under direct contract with the Jurisdiction, only when such damages result from negligence on the part of the Jurisdiction, its Engineer, its contractor, or any of its officers or employees.
5. In any case where the Contractor deems that extra compensation is due from the contracting authority as damages resulting from such performances, nonperformances, or delays, the Contractor shall notify the Engineer in writing at the time the delay occurs. If the Contractor fails to

6. Regardless of whether such notice is given, if the Engineer is not allowed access to books and records for keeping strict account of actual costs as defined for cost-plus construction, then the Contractor thereby waives its claim for extra compensation for such work. Such notice by the Contractor, and the fact the Engineer has kept account of the cost as aforesaid, shall not be construed as establishing the validity of the claim.

7. The claim, when filed, shall be in writing and in sufficient detail to conclude that a change order is warranted to permit auditing and an evaluation by the Jurisdiction. The claim shall be supported by such documentary evidence as the Contractor has available and shall be verified by affidavit of the Contractor or other person having knowledge of the facts.

B. Presentation and Consideration of Claim: If the claimant wishes an opportunity to present its claim in person, the claim shall be accompanied by a written request to do so. Where the claimant asks an opportunity to present its claim in person, the Jurisdiction, within 30 calendar days of the filing of the claim, shall fix a time and place for a meeting between the claimant and the Jurisdiction or its designated representatives or representative. The Jurisdiction shall, within a reasonable time after the filing of the claim or the meeting above referred to, whichever is later, rule upon the validity of the claim and notify the claimant, in writing, of its ruling together with the reasons therefore. In case the claim is found to be just, in whole or in part, it shall be allowed and paid to the extent so found.

C. Request for Binding Arbitration: In the event a Contractor's claim as outlined in the above procedure has been disallowed, in whole or in part, the Contractor may, within 30 calendar days from the date the ruling of the Jurisdiction is mailed, make a written request to the Jurisdiction that its claim or claims be submitted to a board of arbitration.

The Jurisdiction may make a claim or claims against the Contractor for reasons stated in Article 1.12.A.1 by making a written request to the Contractor that its claim or claims be submitted to a board of arbitration.

If both parties voluntarily agree, they may first submit the claim to a mediator who will make a nonbinding decision. The mediator will be selected by the mutual agreement of both parties.

D. Board of Arbitration:

1. The board of arbitration shall consist of three persons - one to be appointed by the Jurisdiction, one to be appointed by the Contractor, and the third to be appointed by the two arbitrators thus chosen.
2. The arbitrators selected shall be persons experienced and familiar with construction or engineering practices in the general type of work involved in the contract, but shall not have been an employee, direct relative of an employee or an individual retained as a consultant by either party at the time the claim arose or at the time of arbitration.

3. The fees and expenses of the arbitrators and any arbitration service or proceedings shall be shared equally by the Jurisdiction and Contractor.

E. Arbitration Proceedings: The board of arbitration shall make its own rules of procedure and shall have authority to examine records kept by the Jurisdiction and the Contractor. Notification of arbitration proceedings shall be made by the arbitration board to both the Jurisdiction and the Contractor, and each shall have the opportunity to attend all sessions of the arbitration board. In determining the findings and award, a majority vote of the board shall govern. Copies of the findings and award, signed by arbitrators, shall be filed with the Jurisdiction and the Contractor. The board of arbitration shall fix the cost of the proceedings, including a reasonable compensation to the arbitrators, and shall determine how the total cost shall be borne by the parties.

F. Jurisdiction of Board of Arbitration: The board of arbitration shall have jurisdiction to pass upon questions involving compensation to the Contractor for work actually performed or materials furnished and upon claims for extra compensation that have not been allowed by the Jurisdiction.
The board’s jurisdiction shall not extend to a determination of quality of workmanship or materials furnished, or to an interpretation of the intent of the plans and specifications except as to matters of compensation. Jurisdiction of the board shall not extend to setting aside or modifying the terms or requirements of the contract.

G. Determination of Board of Arbitration Final: The findings or award, or both, of the arbitration board, shall be final and become a basis for final payment. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the Controlling Law relating to vacating or modifying the arbitral award.

2.02 - CONVENIENCE AND SAFETY.

Replace Article 2.02 – B. in its entirety with the following:

B. Protection of Workers and the Public: The Contractor shall erect and maintain good and sufficient guards, barricades, and signals at or near the work according to the latest version of the MUTCD and all applicable laws, regulations, ordinances and specifications in the Contract Documents. The Contractor shall, in all cases, maintain safe passageways at all road crossings, crosswalks, and street intersections according to the latest version of the MUTCD and shall do all other things necessary to protect the public and prevent an accident or loss of any kind.

All personnel shall wear, at a minimum, ANSI 107 Class 2 apparel at all times when exposed to traffic or construction equipment in the street right-of-way, unless otherwise directed by the MUTCD. Where the MUTCD requires more restrictive apparel or measures, the Contractor must comply with the MUTCD.

Replace Article 2.02 – E. in its entirety with the following:

E. Project Area or Work Site Safety:

1. In accordance with Section 1070, 1.06, until the work is Finally Complete, the work shall be in the custody of and under the charge, care, and control of the Contractor. The Contractor is also responsible for the project area or work site. The Contractor is solely responsible for the safety of everyone on its work site.

2. The Contractor shall have a written safety program; and must submit that safety program to the Jurisdiction prior to Jurisdiction’s issuance of the Notice to Proceed. The Jurisdiction will not approve the Contractor’s safety program. The Contractor shall maintain a safe worksite and is solely responsible for the enforcement of its safety program. The Jurisdiction, Engineer or their staff will not be responsible for enforcement of the Contractor’s safety program.
3. The Jurisdiction or the Engineer may assign some or all of the duties and responsibilities of the Jurisdiction or the Engineer to an authorized representative for a given project. Nothing contained in this section or in the contract documents shall be construed as requiring or permitting the Jurisdiction or the Engineer to direct the means, methods, sequences, or procedures, including safety measures, of performing any work under the contract or contract documents, except to assure that the quality of work conforms to these specifications and other provisions of the contract documents and that the contract will be completed as scheduled.

4. The Jurisdiction or Engineer may appoint an authorized representative on the work site to monitor the materials used and the work done by the Contractor. The Jurisdiction or Engineer’s authorized representative is not a safety inspector and is not responsible for monitoring, directing, or otherwise ensuring the safety of the Contractor, its subcontractors, its suppliers, or any others that may be on the work site.

5. Construction of the work included in the contract is by its nature dangerous work; and the Contractor is hereby notified that it is the Contractor’s sole responsibility to provide as safe a working site as possible given the nature of the work. It is the Contractor’s responsibility to notify and advise its employees, subcontractors, suppliers, and everyone on the worksite of the dangers associated with the work, and provide them with appropriate safety information to protect them from those dangers.

2.03 - WORK AREA

Replace Article 2.03 – A. in its entirety with the following:

A. The Contractor shall confine its work to the Jurisdiction’s premises, including construction easements, construction limit lines, and identified project limits, as shown in the contract documents and verified by the Engineer. The Contractor shall not enter upon or place materials on any private property for which the Jurisdiction has not obtained an easement for such use. The Contractor agrees to defend, indemnify, and hold the Jurisdiction harmless from all suits and actions of every kind and description resulting from the Contractor’s use of private property. Before beginning construction, the Contractor shall check with the Engineer for any special instructions concerning easements.
2.04 - PROJECT AREA FOR THE WORK

Replace Article 2.04 – C. in its entirety with the following:

C. **Use:** The Contractor shall confine its equipment, storage of materials, and operation of work to the limits indicated by laws, ordinances, permits, or direction of the Engineer and shall not unreasonably encumber the premises with its materials. The Contractor shall comply with the Contract Documents regarding signs and advertisements.

Add the following after Article 2.04 – D.:

E. **Working Hours:** The Contractor shall confine its operations to the times permitted by the City of Dubuque Code of Ordinances Section 6-5-1 governing prohibited noises and construction work hours.

2.05 - EXPLOSIVES

Replace Article 2.05 – A. in its entirety with the following:

A. **Use:** The Contractor shall not blast any rock or other materials or allow the same to be done in the prosecution of the work, unless specifically authorized in the Contract Documents.

2.06 - TRAFFIC CONTROL

Replace Article 2.06 – Paragraph B.2. in its entirety with the following:

2. The Contractor shall notify the Engineer 48 hours in advance (excluding weekends or Jurisdiction holidays) of closing any roads, streets, alleys, or public thoroughfares. No road, street, alley or thoroughfare shall be closed without prior approval from the Engineer.

Replace Article 2.06 – Paragraph B.4. in its entirety with the following:

4. In the event the Contractor removes or relocates a traffic control sign without prior notice to or authorization from the Engineer, the Contractor shall bear all responsibility and liability, to any person sustaining bodily injury or property damage on account thereof. At its sole cost, the Contractor must replace the traffic control sign in its original condition if directed to do so by the Engineer or the Jurisdiction.
2.07 - PROTECTION OF ABOVEGROUND AND UNDERGROUND FACILITIES

Replace Article 2.07 – C. in its entirety with the following:

C. The Contractor shall, prior to commencing any excavation or other operation that may affect underground facilities, notify the "Iowa One Call" underground facility locate system, established pursuant to Iowa Code Chapter 480. The Contractor may, if requested by the operator of an underground facility, assist in the location of its facilities; provided, however, the Jurisdiction shall not be responsible to the Contractor or to any operator of an underground facility for the cost of locating such facility, or for any damage to such facility that occurs in attempting to locate it, or for any damage to the facility occasioned by the Contractor's performance of work under the contract.

2.08 - PROTECTION OF PROPERTY

Replace 2.08 – B. in its entirety with the following:

B. The Contractor shall protect existing facilities, trees, and shrubs to remain in place. Any damage to existing trees or shrubs, branches, and root systems to remain and to be protected shall be repaired and/or pruned by an experienced tree surgeon or arborist at the Contractor's expense. Contractor will not disturb soil within 10 feet of the drip line of trees without notifying the Engineer. The Contractor shall mark the 10 foot limit from the drip line, prior to any excavation in the surrounding area.

2.10 – DUST CONTROL

Replace Article 2.10 in its entirety with the following:

During construction operations, the Contractor shall be responsible for the control of dust to a degree compatible with the area in which the construction is being performed, and in compliance with existing environmental permits and regulations, and with the City of Dubuque Code of Ordinances. In the event the Contractor does not control dust as specified, the Jurisdiction reserves the right to order dust control to be performed by other forces and withhold the cost thereof from any monies due or may become due to the Contractor under the contract.
2.13 - BORROW AND WASTE SITES

*Replace 2.13 – B. in its entirety with the following B:*

B. In all cases, borrow and waste sites shall be operated in such a manner as to meet Federal, State, and local safety, environmental, and health requirements. Site operations, or the result of such operation, that create a nuisance or result in damage to public or private property will not be permitted. In all cases, sites shall be approved by the Engineer before use.

2.14 - MAINTAINING POSTAL SERVICE

*Replace Article 2.14 – C. in its entirety with the following:*

C. For each residential or business address affected by the work, the Contractor shall place a temporary mailbox at a location approved by the Postal Service. Temporary mailboxes shall be in place so postal service is maintained at all times. Any permanent mailbox that must be removed shall be stored on the property from which it is removed and at a sufficient distance from the work area to ensure it will not be damaged by construction activities and shall be reinstalled to its original or like new condition at the conclusion of the work.

3.01 - PERFORMANCE, PAYMENT, AND MAINTENANCE BOND

*Replace Article 3.10 – C. in its entirety with the following:*

C. Within the time period specified in the maintenance portion of the bond, the Contractor shall, as and when ordered in writing by the Jurisdiction, repair, replace, or rebuild such portions of the work found to be faulty because of materials, equipment or workmanship. After being notified of the need for repairs, the Contractor shall submit, within seven calendar days, a written report stating its intentions and schedule for completing the repairs for approval by the Jurisdiction. If the Contractor fails to submit such written report or to make the repairs as approved by the Jurisdiction, the Jurisdiction shall have the right to make such repairs and to collect from the Contractor or its surety all outlay and expense the Jurisdiction incurs in making the repair, and in attempting to enforce the terms of the contract and the bond against the Contractor and its surety. Persistent failure by the Contractor to make such repairs may constitute grounds for disqualification of the Contractor from bidding on future projects.

*Add the following after Article 3.10 – C.:

A. Products and completed work must be maintained for the duration of the project until the Substantial Completion Certificate is issued, and must be maintained for a period of two (2) years after Final Acceptance of the Project.
3.02 - INSURANCE REQUIREMENTS

*Replace Article 3.02 in its entirety with the following:*

See Insurance Schedule B provided by the Jurisdiction, located in the contract documents manual.

3.03 - CONTRACTOR’S INDEMNITY – CONTRACTUAL LIABILITY INSURANCE

*Replace Article 3.03 in its entirety with the following:*

See Insurance Schedule B provided by the Jurisdiction, located in the contract documents manual.

3.04 - CONTRACTOR’S INSURANCE FOR OTHER LOSSES; WAIVER OF SUBROGATION

*Replace the first sentence in Article 3.04 – B. in its entirety with the following:*

B. Contractor shall cause each of its subcontractors, consultants, suppliers, third parties, or the agents of any of them, to carry insurance as required by the Jurisdiction's Insurance Schedule B, to cover all loss to such materials, tools, motor vehicles, and equipment.

3.05 – PROPERTY INSURANCE

*Replace the last sentence in Article 3.05 – A. with the following:*

This property insurance covering the work will have a deductible of $25,000 for each occurrence, or as stated in the special provisions, which will be the responsibility of the Contractor.

3.06 - ENDORSEMENT NAMING JURISDICTION AS AN ADDITIONAL INSURED / CANCELLATION AND MATERIAL CHANGE / GOVERNMENTAL IMMUNITIES ENDORSEMENT

*Replace Article 3.06 in its entirety with the following:*

See Insurance Schedule B provided by the Jurisdiction, located in the contract documents manual.
3.07 - PROOF OF INSURANCE

Replace Article 3.07 in its entirety with the following:

See Insurance Schedule B provided by the Jurisdiction, located in the contract documents manual.

3.09 - SAMPLE INSURANCE FORMS

Replace Article 3.09 in its entirety with the following:

Sample forms will be provided by the Jurisdiction and included in the Contract Documents Manual.

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1.01 - SUBLETTING OR ASSIGNMENT OF CONTRACT

Replace Article 1.01 – A in its entirety with the following:

A. Work by Contractor:

1. The Contractor shall perform, with its own organization and forces, work amounting to no less than 30% of the total contract cost, except any items designated in the contract documents as "specialty items" may be performed by subcontract, and the cost of any such "specialty items" may be deducted from the total contract cost before computing the amount of work required to be performed by the Contractor with its own organization. Any items that have been selected as "specialty items" for the contract will be listed as such in the contract documents.

2. In order to meet this 30% requirement, the Contractor shall not purchase any materials for a subcontracted item, nor shall it place other contractor's employees on its payroll.

3. The Contractor shall not assign this Contract to another person, firm, or corporation without the prior consent of the Jurisdiction. The Jurisdiction may refuse to approve a proposed assignment of contract if such assignment would not be in the best interests of the Jurisdiction, or if such assignment would be contrary to law or public policy. An assignment of contract and all subcontracts shall be in writing.

Replace Article 1.01 – C., Paragraph 1. in its entirety with the following:

1. Upon request of the Jurisdiction, the Contractor shall provide a copy of each subcontract agreement and proof of insurance within 5 business days of receiving the request.

Prior to commencing work at the site, the Contractor shall provide a complete list of all subcontractors that will be performing work on the Project that includes the name of the company, business address, site superintendent or person in charge, their email address and 24–hour mobile phone number.
Add the following after Article 3.01 – C.2.

3. For any subcontract, subletted or otherwise disposed of portion of the Contract, the Contractor shall provide in writing the name, address, telephone number, and representative of the organization that will perform the work, a description of the work to be performed, and the associated cost. When requested by the Engineer, the Contractor shall provide a written report showing the organization that will perform the work is particularly experienced and equipped for such work.

1.02 – CONTRACT TIME

Replace Article 1.02 in its entirety with the following:

A. In accordance with the completion date specified in Section 00800, the contract time shall be the time from the starting date stated in the Notice to Proceed to the date specified for completion as shown in the contract, both dates inclusive. When working days or calendar days are specified in the contract documents, the contract time shall be the time as calculated with the number of working days or calendar days as specified in the contract and the starting date in the Notice to Proceed. The contract time may be extended by the Jurisdiction as provided in these specifications, in which event the contract time includes the new extension of time. The Contractor acknowledges that if it fails to complete the contract by said time, Agreed Costs of Delay will be assessed against it as specified in Section 1080, 1.12 – Agreed Costs of Delay.

1. Completion Date Contracts:
   The Contractor shall complete the contract on or before the completion dates listed in the construction documents manual. The Contractor may commence work any time after receipt of the Jurisdictions signed Notice to Proceed. Section 1080, 1.06 shall not apply to Completion Date Contracts. Agreed Costs of Delay will be assessed according to Section 1080, 1.12 for each calendar day beyond the contract times stipulated in the contract documents that the Project remains uncompleted.

2. Working Day Contracts:
   Specified Start Date: Working days will be charged to the Contractor starting on the specified start date, which is the date noted in the Notice to Proceed. Starting work prior to the specified start date will be considered upon request, and working days will be charged when work starts. No work may start unless the Contract is signed by the Contractor and Jurisdiction.

B. Milestone dates may be designated for completion of a specific item or certain designated portions of the work. The contract times and the agreed costs of delay, for each milestone will be listed in the contract documents.
1.03 - WORK PROGRESS AND SCHEDULE

*Replace Article 1.03 – B. and C. in their entirety with the following:*

B. After being awarded the contract, and if specified in the contract documents, the Contractor shall immediately prepare and submit to the Engineer for approval a progress schedule that will ensure the completion of the project within the time specified. Adequate equipment and forces shall be made available by the Contractor to start work immediately upon issuance of the Notice to Proceed by the Jurisdiction and to prosecute the work to completion according to schedule and within the time specified. The Contractor shall create and maintain the progress schedule in accordance with associated special provision.

C. If it appears the rate of progress is such that the Project will not be completed within the contract time, or if the work is not being executed in a satisfactory and workmanlike manner, the Jurisdiction may order the Contractor to take such steps as necessary to complete the Project within the contract time specified or to prosecute the work in a satisfactory manner. If the Contractor fails to comply with such order within two weeks after receipt of the order, the Jurisdiction will have the right to declare the contract in default.

*ADD the following after Article 1.03 – C.:*

D. Unless otherwise specified in the contract documents, the Contractor shall give notice, as hereafter provided, to all utilities, public and private agencies, abutting property owners, and all others affected by its operations as to time for starting and for completion of its work, names of streets or locations of alleys closed, schedule of operations, and routes of detours where possible. Notification shall be made 48 hours ahead of time to provide proper re-routing of traffic and erecting of signs before the work is to begin.

E. The Contractor shall properly coordinate and expedite its work in such a manner as to cause the least amount of conflict and interference between its operation and those of all others affected by its operations. Any or all damages or claims resulting from the improper or insufficient notification of all others affected by its operations shall be the responsibility of the Contractor.

1.04 - PRECONSTRUCTION CONFERENCE

*Replace Article 1.04 in its entirety with the following:*

Before starting any work at the site, the Engineer shall schedule and lead a preconstruction conference. The Engineer, Jurisdiction, Contractor and the intended subcontractors, if known, shall participate in this conference. The Engineer may invite representatives of railroads, utilities and others having responsibilities or interest in the work. The Engineer shall determine the agenda for the conference and the Contractor shall prepare and provide the requested information at the conference.
1.05 - NOTICE TO PROCEED

Replace Article 1.05 – B. in its entirety with the following:

B. The Contractor shall begin work as specified in the Notice to Proceed issued by the Jurisdiction and shall prosecute the work vigorously and continuously to completion, except when it is physically impossible to do so due to weather conditions or other unavoidable handicaps. The necessity of discontinuing and resuming work on any portion of the contract shall be determined solely by the Jurisdiction.

1.06 - WEEKLY RECORD OF WORKING DAYS

Replace Article 1.06 – B., Paragraph 2. in its entirety with the following:

1. After Commencement of Work: One full working day will be charged for any weekday, exclusive of Saturdays, Sundays, or a recognized legal holiday, when weather or other conditions (not under control of the Contractor) will permit construction operations to proceed for not less than 3/4 of a normal workday in the performance of a controlling item of work as determined by the Engineer. If such conditions allow operations to proceed for at least 1/2 but less than 3/4 of the normal working hours, one-half working day will be charged.

Working days will not be charged for Saturdays (unless a mandatory six-day work week is specified in the contract documents), Sundays, and recognized legal holidays the Contractor does not work. Working days will be charged for Sundays and recognized legal holidays the contractor does work.

1.07 - WORK ON SUNDAYS OR LEGAL HOLIDAYS

Replace Article 1.07 in its entirety with the following:

A. Except when an accelerated work schedule is required in the contract documents, no work requiring inspection will be allowed on Saturdays, Sundays or holidays observed by the Jurisdiction unless permission is obtained from the Engineer in advance of the work. The Contractor is responsible for obtaining a list of holidays observed by the Jurisdiction for consideration in developing their bid and progress schedule.
B. Such work as may be required to properly maintain or protect completed or partially completed construction, or to maintain lights and barricades, will be permitted on Saturdays, Sundays or holidays without specific permission of the Engineer.

1.08 - TEMPORARY SUSPENSION OF WORKING DAYS

Replace Article 1.08 in its entirety with the following:

When, in the judgment of the Engineer, unfavorable weather makes it impractical to secure acceptable results or other conditions warrant an order to suspend working days, the Engineer shall issue to the Contractor a written order to suspend working days wholly or on any part of the contract. When conditions are again favorable for prosecution of the working days, the Engineer shall issue to the Contractor a written order to resume the suspended working days. Orders to suspend working days will not be written for short intermittent shutdowns of three (3) days or less due to weather conditions. The Contractor shall take every precaution to prevent any damage or unreasonable deterioration of the work during the time of suspended operations.

1.09 - EXTENSION OF TIME

Replace Article 1.09 – B. in its entirety with the following:

B. Request for Extension of Time: Whenever the Contractor becomes aware of its inability to complete the work under the contract within the contract period; it shall request an extension in writing no later than seven (7) calendars of the event that occurred to cause such delay. The request shall be submitted to the Engineer for consideration by the Jurisdiction. The request for an extension of time is the sole and exclusive remedy of the Contractor for the events listed below, except for approved change orders. The submission of a request for extension of time shall not guarantee such extension will be granted by the Jurisdiction.

The following items may be a justification for extension of time:

1. Weather: Extension of time due to adverse weather conditions at the site, so unusual or severe as not to be reasonably anticipated when considering local annual weather records and patterns may be requested. An average or usual number of inclement working or calendar days when work cannot proceed are to be anticipated during the construction time and are not to be considered as warranting an extension of time.
2. Other Jurisdiction Work: An extension of time may be requested for delays caused by the noncompletion of critical path work by the Jurisdiction or other Jurisdiction contractors, provided such noncompletion is the sole and only cause of delay, and where the Contractor has available on the site of the work all equipment, material, and labor necessary to proceed with the work.

3. Change Orders: An extension of time may be requested for delays caused by the issuance of a change order, where the work occasioned by the change order is the sole and only cause of the impossibility to complete the work within the specified time. Any extension of time must be requested, approved and incorporated into the change order, at the time all parties sign the change order.

4. Work Stoppage: An extension of time may be requested for delays caused by a general work stoppage in the area or a work stoppage affecting this project that is beyond the control of the Contractor, or where the Contractor has taken in good faith all steps made available to it by law to resolve the causes thereof and to terminate such work stoppage. Such an extension of time must be requested within fourteen (14) calendar days of the first day of the work stoppage.

5. Acts by U.S. Government: An extension of time may be requested for delays caused by any act taken by the United States government that would affect fabrication or delivery of materials or equipment to the work site. Such an extension of time must be requested within fourteen (14) calendar days from the first day the Contractor becomes aware of the government act.

6. Court Proceedings: An extension of time may be requested for delays caused by any court proceedings. Such an extension of time must be requested within fourteen (14) calendar days of the conclusion of any court proceedings.

7. Other Delays: Such an extension of time may be requested for other delays encountered by the Contractor beyond its control and impossible for the Contractor to complete the contract within the specified time. An extension of time must be made within seven (7) calendar days of the first day the Contractor becomes aware of the event causing the delay.

Replace Articles 1.09 D. and E. in their entirety with the following:

D. Documentation Required for Extension: No extension of time shall be granted or recognized except as specifically approved by the Jurisdiction in writing to the Contractor. Oral representations or agreements by Jurisdiction agents or employees regarding time extension shall not be binding on the Jurisdiction. No extension of time will be granted unless the Contractor provides clear, sufficient schedule documentation justifying the need for such extension. In order for an extension of time to be granted, the Contractor must properly demonstrate that the critical path schedule for the Project has been impacted.
E. **Extension of Time Granted:** No extension of time shall be granted or recognized unless specifically approved by the Jurisdiction in a written change order to the Contractor. Oral representations or agreements by Jurisdiction agents or employees regarding time extension shall not be binding on the Jurisdiction.

1.10 - CONTRACTOR’S EMPLOYEES, METHODS, AND EQUIPMENT

*Replace Article 1.10 – A., Paragraph 2. in its entirety with the following:*

2. Prior to beginning work, the Contractor shall give the Engineer, in writing, the name of the Contractor's official representative or superintendent for the project. The superintendent shall be capable of providing adequate supervision of the project and shall be responsible for receiving instructions, notices, and written orders from the Engineer. A change of the superintendent shall be only be allowed in instances that an extreme hardship on the Contractor or their superintendent. Before the superintendent is removed from the Project, the Contractor must submit a request in writing to the Engineer and the Jurisdiction that includes supporting information to substantiate the request. Failure to provide adequate supervision of the project or removing the superintendent from the Project without prior written authorization shall be grounds for the Jurisdiction to require a change in supervision before allowing the work to proceed. Such change shall not be in any way be a basis for a claim.

The superintendent shall be responsible for reporting to the Engineer any inconsistencies, omissions, or lack of definite detail in the plans, special provisions, or contract documents that may be discovered. The superintendent shall be present at the work site at least 50% of the time while the work is being performed.

*Replace Article 1.10 – B., Paragraph 2. in its entirety with the following:*

2. The Contractor shall not employ or hire any of the employees of the Jurisdiction.

1.12 – LIQUIDATED DAMAGES

*Replace the entire Article 1.12 with the following:*


1.12 – AGREED COSTS OF DELAY

A. Time is of the essence of this contract. As delay in the diligent prosecution of the work may inconvenience the public, obstruct traffic, interfere with business, and/or increase costs to the Jurisdiction such as engineering, administration, and inspection, it is important the work be prosecuted vigorously to completion. Should the Contractor, or in case of default the surety, fail to complete the work within the contract time plus such extensions of time as may be allowed by the Jurisdiction, a deduction at the Agreed Costs of Delay rate specified in the contract will be made for each and every calendar day or working day, whichever is specified, that such the Contract remains uncompleted after expiration of the contract times. In either event, the Contractor or the Contractor’s surety shall be responsible for all costs incident to the completion of the work, and shall be required to pay to the Jurisdiction the Agreed Costs of Delay stipulated in the Contract Documents.

B. The Agreed Costs of Delay rate specified in the Contract Documents is hereby agreed upon as the true and actual damages due the Jurisdiction for loss to the Jurisdiction and to the public due to obstruction of traffic, interference with business, and/or increased costs to the Jurisdiction such as engineering, administration, and inspection after the expiration of the contract time, or extension thereof. Such Agreed Costs of Delay shall be deducted from any money due or to become due to the Contractor under the contract, and the Contractor and its surety shall be liable for any additional costs or damages in excess of the amount due to the Jurisdiction.

C. Allowing the Contractor to continue and finish the work, or any part of it, after the expiration of the contract times or extension thereof shall in no way operate as a waiver on the part of the Jurisdiction of any of its rights or remedies under the contract, including its right to Agreed Costs of Delay pursuant to this provision.

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1.03 – LUMP SUM BREAKDOWNS

Replace Article 1.03 – A. and B. in their entirety with the following:

A. If the contract is based on a lump sum bid price, or contains one or more lump sum items for which progress payments are to be made, the Contractor shall prepare and submit a schedule of values (breakdown estimate) covering each lump sum item to the Engineer for approval. The schedule of values shall show the estimated value of each kind or item of work. The sum of the lump sum items listed in the schedule of values shall equal the contract amount. Overhead, profit, insurance and bonds shall not be listed as separate items.

B. The schedule of values shall be approved by the Engineer prior to the start of the work and before any progress payments are processed. An unbalanced schedule of values providing for overpayment to the Contractor for items of work to be completed first will not be approved, but shall be revised by the Contractor and resubmitted until acceptable to the Engineer.

1.04 - PAYMENT FOR CHANGE ORDERS

Replace Article 1.04 – B. Paragraph 2. in its entirety with the following:

2. Supplemental Schedule: By supplemental schedule of prices to include costs of all equipment, material, labor, supervision, management, insurance, overhead, and incidentals, said schedule to be submitted by the Contractor to the Engineer and to be accepted by the Jurisdiction.

1.05 - PROGRESS PAYMENTS

Replace Articles 1.05 - A. and B. in their entirety with the following:

A. Limits: Progress payments for work under the Contract shall be processed once monthly, shall be made according to Iowa Code Chapter 573, and shall be made on the basis of monthly estimates of labor performed, equipment and materials delivered and incorporated into the work, as determined by the Engineer. Payment may be made for materials not incorporated into the project if they can be specifically identified and cost verified by invoice and in accordance with Section 1060, Article 1.04. Progress payment requests shall be accompanied by the documentation required in Section 1090, 1.07, B - Sales and Use Tax.

B. Retainage: The Jurisdiction shall retain from each monthly progress payment 5% of the amount determined to be due according to the calculation of the Engineer. Early release of
retained funds may be requested by the Contractor according to Iowa Code Sections 26.13 and 573.15A.

1.06 - PAYMENT OF RETAINAGE

After Article 1.06 B., add the following:

C. After issuance of the Substantial Completion Certificate of the whole project or if a designated portion of the Project has been specified in the Contract Documents, the Contractor may request an early release of retainage. The Contractor must provide the request for early release of retainage in accordance with Iowa Code Section 26.13. The request shall be accompanied by a sworn statement of the Contractor that, ten calendar days prior to filing the request, notice was given as to all known subcontractors, sub-subcontractors, and suppliers.

If labor and materials are yet to be provided at the time the request for the release of the retained funds is made, an amount equal to two hundred percent of the value of the labor or materials yet to be provided, as determined by the governmental entity’s authorized contract representative, may be withheld until such labor or materials are provided. Retained funds that are approved as payable shall be paid at the time of the next monthly payment or within thirty days of receipt of the Contractor’s request, whichever is sooner. If partial retained funds are released pursuant to the Contractor’s request, no retained funds shall be subsequently held based on that portion of the work. An itemization of the labor or materials yet to be provided, or the reason that the request for release of retained funds is denied, shall be provided to the contractor in writing within thirty calendar days of the receipt of the request for release of retained funds.

The contractor shall release retained funds to the subcontractor or subcontractors in the same manner as retained funds are released to the contractor by the governmental entity. Each subcontractor shall pass through to each lower tier subcontractor all retained fund payments from the contractor.

1.07 - SALES AND USE TAX STATEMENT

Delete Article 1.07 in its entirety.
1.08 - ACCEPTANCE AND FINAL PAYMENT

Replace Articles 1.08 A. and B. in their entirety with the following:

A. Final payment will be based on the actual final total amount of the work accomplished and finally accepted by the Jurisdiction under the Contract. Under no circumstances or conditions will the Contractor be paid anything for anticipated profits for the work, nor will it be paid for any work not actually included in the Project. Payments shall be based on the actual units installed. The Jurisdiction will not give final acceptance of the work until the Contractor has submitted all documentation required by the Contract Documents.

B. The Engineer shall, after determining the work on the Project has been finally and fully completed according to the Contract Documents, make a final calculation of the amount of work done and the value thereof.

END OF SECTION
PART I - GENERAL

1.07 CONTRACTOR RESPONSIBILITY

Add the following to Article 1.07.

Contractor shall be responsible for notifying and coordinating with appropriate agency when working around exposed utilities.

1.08 MEASUREMENT AND PAYMENT

Delete Article 1.08 A in its entirety

E. Class 10, Class 12 or Class 13 Excavation:

1. On-site Topsoil:
   b. Payment:
      2) The truck count method is not allowed as an acceptable method measurement.

F. Below Grade Excavation:

If unsuitable or unstable soils are encountered at or below the subgrade elevation, as a result of proof rolling in accordance with 2010 3.06 B.1, the unsuitable or unstable soil shall be removed and replaced as directed by engineer and according to 2010 3.06 B.2 except that granular stabilization materials meeting section 2010 2.04 B.1 will be used.

1. Measurement:
   Will be in tons of granular stabilization material used, obtained from load tickets.

2. Payment:
   Will be made at the bid unit price per ton

3. Includes:
   but is not limited to equipment, tools, labor, disposal of unsuitable or unstable soils, dewatering, furnishing and placement of granular stabilization material (2010 2.04 B.1), compaction, finishing of the excavated area, and all other incidental work as may be required.

I. Subbase:

1. Measurement: Will be in tons of granular material used as obtained from load tickets.

2. Payment: Will be made at the bid unit price per ton

K. Filling and Plugging of Culverts, Pipes and Conduits:

1. Known pipe culverts, pipes, and conduits
   a. Measurement: The quantity of flowable mortar used to fill and abandon the culverts, pipes or conduits will be computed from the load tickets in cubic yards.
   b. Payment: Will be at the bid unit price for flowable mortar.

2. Unknown pipe culverts, pipes, and conduits:
   a. Measurement: The quantity of flowable mortar used to fill and abandon the culverts, pipes or conduits will be computed from the load tickets in cubic yards.
   b. Payment: Will be at the bid unit price for flowable mortar
   c. Filling and plugging of all private utility lines is the responsibility of the respective utility agency, and will not be measured or paid
2.04 FOUNDATION MATERIALS
Delete Article 2.04 B.1, C.2, and D.1 in their entirety and replace with the new B.1, added C.6 and new D.1.a.

B. Granular Stabilization Material:
   1. Course aggregate subbase (3" Breaker Run)

C. Subgrade Treatment:
   6. Use fabric complying with Iowa DOT Article 4196.01-2

D. Subbase
   1. Special Backfill:
      a. Comply with IDOT Specifications; 4132 - Gradation 30 or IDOT Specification 4133 - Gradation 32

PART 3 - EXECUTION

3.02 STRIPPING, SALVAGING AND SPREADING TOPSOIL
Modify Article 3.02 A.2 and C.2 (topsoil thickness) as follows.

A. Stripping, Salvaging, and Spreading Topsoil:
   2. Topsoil thickness based on a uniform 4" thickness

C. Topsoil Spreading and Finish Grading:
   2. Topsoil thickness based on a uniform 4" thickness

3.06 SUBGRADE PREPARATION
Delete Article 3.06 first sentence and add the following.

   Shape and consolidate subgrade in preparation for the placement of pavement. Follow both 3.06 A and 3.06 B for new street construction. Follow 3.06 B for street reconstruction, and pavement widening

3.07 SUBGRADE TREATMENT
Delete Article 3.07 A Asphalt.

A. Delete Asphalt

End of Section 2010 – EARTHWORK, SUBGRADE, AND SUBBASE
Section 3010 – TRENCH EXCAVATION AND BACKFILL
PART 1 - GENERAL

1.05 DELIVERY, STORAGE, AND HANDLING Add the following A. and B. to Article 1.05.

A. All deliveries of granular materials to be incorporated into the project must follow IDOT 2001-07 A and must have a scale ticket completely filled out according to IDOT Materials IM 209.

B. All certified granular materials, specified by gradation, must have a sieve analysis report submitted to the engineer during the submittal process. The report must be from the most recent crushing operation.

1.08 MEASUREMENT AND PAYMENT
Delete Article 1.08 A.4, D.1 thru D.3 and replace with the new A.4 and D.1 thru D.3. Add the following New G, H, I, J, K, L and M.

A. General
4. Bedding will be paid separately, at the bid unit price.

D. Replacement of Unsuitable Backfill Material:
1. Measurement: Will be in tons of granular material used, obtained from load tickets.
2. Payment: Will be made at the bid unit price per ton.
3. Includes: Includes hauling and off-site disposal of unsuitable material.

G. Pipe Anchors – Concrete:
1. Measurement: Each concrete pipe anchor installed will be counted.
2. Payment: Will be made at the bid unit price for each.
3. Includes: Includes but is not limited to, furnishing, hauling and placing concrete, form work, and reinforcing steel according to the plans.

H. Hydraulically Compacted Backfill:
1. Measurement: Will be in tons of backfill material used, obtained from load tickets.
2. Payment: Will be made at the bid unit price per ton.
3. Includes: Includes but is not limited to equipment, tools, labor, disposal of excavated material, furnishing and placement of backfill material, furnishing water for hydraulic compaction, finishing of the excavated area, and all other incidental work as may be required.

I. Trenching, 26” Depth:
1. Measurement: Will be per lineal foot of trench excavation.
2. Payment: Will be made at the bid unit price per lineal foot.
3. Includes: Includes but is not limited to equipment, tools, labor, disposal of excavated material, placement of backfill material, finishing of the excavated area, and all other incidental work as may be required per the City of Dubuque’s Excavation Policy. Does not include conduit.

J. Trenching, 48” Depth:
1. Measurement: Will be per lineal foot of trench excavation.
2. Payment: Will be made at the bid unit price per lineal foot.
3. Includes: Includes but is not limited to equipment, tools, labor, disposal of excavated material, placement of backfill material, finishing of the excavated area, and all other incidental work as may be required per the City of Dubuque’s Excavation Policy. Does not include conduit.
K. Directional Drilling:
   1. **Measurement:** Will be per lineal foot of directional drilling completed. Measurement will be from the face of excavation to face of excavation. The distance across Intermediate excavations, for splicing purposes, will not be deducted from the overall measurement. Installation of multiple conduits with a single bore will be considered one bore. The length of the directional drilling will not be multiplied by the number of conduits installed to determine the bore length.
   2. **Payment:** Will be made at the bid unit price per lineal foot.
   3. **Includes:** Includes but is not limited to equipment, tools, labor, disposal of excavated material, placement of backfill material, finishing of the excavated area, and all other incidental work as may be required. Does not include conduit

L. Rigid Insulation Board:
   1. **Measurement:** Will be per square foot of insulation board installed.
   2. **Payment:** Will be made at the bid unit price per square foot.
   3. **Includes:** Includes but is not limited to equipment, tools, labor, furnishing and installation of the insulation as identified on the plans or as directed by the engineer.

M. Pipe Insulation Wrap:
   1. **Measurement:** Will be per foot of insulation wrap installed.
   2. **Payment:** Will be made at the bid unit price per linear foot.
   3. **Includes:** Includes but is not limited to equipment, tools, labor, furnishing and installation of the insulation as identified on the plans or as directed by the engineer.

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**PART 2 - PRODUCTS**

### 2.02 BEDDING MATERIAL
Delete Article 2.02 A.1 and replace with the new A.1.
Delete A.2 and A.3 in its entirety.
Add the following new A.5, A.6, and A.7.

A. **Class I Material:**
   1. **Class I Material** - Use 1 inch clean stone or IDOT Specification 4115, Gradation 3 or IDOT Specification 4131, Gradation 29.
   5. **Class II Material** - Use IDOT Specification 4133, Gradation 32 or IDOT Specification 4133.05, Gradation 32.
   7. Engineering Fabric shall be placed at the interface between the 1 inch clean stone, Gradation 3 or 29 material and haunching or backfill containing fines being placed above.

### 2.03 BACKFILL MATERIAL
Delete Article 2.03 A and B in their entirety and replace with the new A and B.
Add new E to Article 2.03.

A. **Class II Materials** - For use as Haunch Support, Primary and Secondary Backfill
   1. 1 inch clean stone (screened but not washed)
   2. IDOT Specification 4115, Gradation 3
   3. IDOT Specification 4131, Gradation 29
   4. IDOT Specification 4133.05, Gradation 35
   5. IDOT Specification 4121, Gradation 30 may be used for primary and secondary backfill
   6. IDOT Specification 4133, Gradation 32 may be used for primary and secondary backfill
7. Do not use gradations 12a or 32 where water conditions in trench may cause instability
8. Engineering Fabric shall be placed at the interface between the Gradation 3 or 29 material and backfill containing fines being placed above.

B. **Class III Materials** - For use as Final Backfill
   1. IDOT Specification 4121, Gradation 30
   2. IDOT Specification 4133, Gradation 32
   3. Engineering Fabric shall be placed at the interface between the 1 inch clean stone, Gradation 3 or 29 material and backfill containing fines being placed above.

E. **Class VI Material** - Hydraulically Compacted Sand:
   1. Use IDOT Specification 4133.05, Gradation 35
   2. When approved by the Engineer
   3. Only for backfilling conduit and structures listed in Section 8010.

2.05 **STABILIZATION (FOUNDATION) MATERIALS**
Delete Article 2.05 A its entirety and replace with the new A.
   A. Coarse aggregate sub base (3” Breaker Run)

2.06 **SPECIAL PIPE EMBEDMENT AND ENCASEMENT MATERIAL**
Delete Article 2.06 C and in its entirety.

1.07 **RIGID INSULATION BOARD**
Add the new Article 2.07.
   A. 2” extruded polystyrene
Add new

1.08 **PIPE INSULATION WRAP**
Add the new Article 2.08.
   A. 1/2” Thick Pipe Insulation Wrap

PART 3 - EXECUTION
3.03 **TRENCH PROTECTION**
Add C
   C. Shall be placed in accordance with OSHA 29 CRF 1926.

3.04 **DEWATERING**
Add the new D.8:
   D. **Discharged Water:**
      8. If dewatering discharge is overwhelming an approved sewer, waterway, or street or is causing damage in any way, the Engineer may stop the dewatering efforts or require the rate of discharge to be reduced at no additional cost to the Jurisdiction.

3.05 **PIPE BEDDING AND BACKFILL**
Add to Article 3.05 A the new A, B.1.g.
Delete E.3.a & E.3.b in their entirety and replace with the new E.3.a & E.3.b.
Delete E.4.c its entirety and replace with the new E.4.c.
   A. **General**
      3. Add: In accordance with ASTM 2216
B. Pipe Bedding:
   1. Granular Material:
      g. Engineering Fabric shall be placed at the interface between the 1 inch clean stone, Gradation 3 or 29 material and backfill containing fines being placed above.

E. Final Trench Backfill:
   3. Class I and II Backfill Material:
      a. Compact to at least 95% of standard proctor density within right-of-way or under any paved surface or within two feet thereof. Moisture Content -1% to +3% of optimum.
      b. Compact to at least 90% of standard proctor density outside right-of-way. Moisture Content -1% to +3% of optimum.

4. Class III and Class IVA Backfill Material:
   c. Moisture Content -1% to +3% of optimum.

Add new 3.07
3.07 RIGID INSULATION BOARD
   1. Insulate any water mains or water services that are less than 5'-6" below existing grade. Install the insulation board full width over the entire exposed water main or service.
   2. Insulate between any water mains or water services and other utility structures.

Add new 3.08
3.08 PIPE INSULATION WRAP
   1. Insulate all water service lines that are exposed across the entire length of the excavation. If the water service is less then 5'-6" below the existing grade additional 2" rigid insulation shall be placed above the water service across the entire length of the excavation. Pipe Insulation Wrap Material shall be 1/2" thick.

End of Section 3010 – TRENCH EXCAVATION AND BACKFILL
Section 3020 – TRENCHLESS CONSTRUCTION

PART 1 - GENERAL

1.03 SUBMITALS Add the new E and F to Article 1.03.

E. Prequalification Statement per Contract Documents.
F. Soil borings as necessary and as outlined in Contract Documents.

1.07 SPECIAL REQUIREMENTS
Add the new A to Article 1.07.

A. Per Contract Documents

PART 2 - PRODUCTS

2.01 CARRIER PIPES
Delete Article 2.01 B.5 and 6 in its entirety and replace with the new B.5 and 6.

B. Carrier Pipe Installed without Casing Pipe:
   5. Electrical Conduit
      b. Comply with section 8010-2.01-B.
   6. Fiber Optic Conduit
      a. Comply with section 8010-2.01-B.

2.03 CASING SPACERS
Delete Article 2.03 B in its entirety and replace with the new B.

B. Meet the following Material Requirements
   1. Shall be USA made.
   2. Fabricated of stainless steel with stainless steel fasteners.
   3. Polyethylene glides.
   4. Cascade Waterworks Mfg. or approved equal.
   5. Casing spacers shall be installed at intervals that comply with the manufacturer’s recommendations.

2.06 CASING END SEAL
Delete Article 2.06 A in its entirety and replace with the new A.

A. Manufactured:
   1. Shall be USA made.
   2. End seals shall be Cascade Waterworks style CCES or approved equal.
   3. A double wrap of woven geotextile. Secured w/#14 insulated copper wire.
   4. Alternate elastomeric boot as approved by the Engineer.
PART 3 - EXECUTION

3.04 TRENCHLESS INSTALLATION
Delete Article 3.04 B in its entirety and replace with the new B.

B. Carrier Pipe Installed without Casing Pipe:
   1. General
      a. Install pipes by approved methods.
      b. Use jacking collar, timbers and by other means as necessary to protect driven end of the pipe from damage.
      c. Do not exceed the compressive or ensile strength capacity of the pipe during pushing or pulling operations.
      d. Fully supported bore hole at all times to prevent collapses. Insert pipe as soil is removed or support bore with drilling fluid.
      e. Fully weld all casing pipe joints. Using an interlocking connection system when approved by the Engineer.
      f. Fill annular space between the inside of the bore hole and the outside of the pipe with special fill material if the space is greater than one inch. Comply with section 3010, 2.06 (B)
   2. Electrical Conduit
      a. Multiple conduits shall be installed with a single bore when possible.
   3. Fiber Optic Conduit
      a. Four 1 1/2 inch conduits shall be installed with a single bore.

3.05 PIT RESTORATION
Add D.2, D.3, and E

D. Primary and Secondary Backfill:
   2. Granular Material:
      a. Place in lifts no greater than 12"
      b. Compact to at least 90% relative density
   3. Suitable Backfill Material:
      a. Place in lifts no greater than 12"
      b. For Class II Backfill material compact to at least 90% relative density

E. Final Trench Backfill:
   2. Class I and II backfill:
      a. Compact to at least 95% relative density within right-of-way

End of Section 3020 – TRENCHLESS CONSTRUCTION
Section 4010 – SANITARY SEWERS

PART 1 - GENERAL

1.03 SUBMITTALS
Delete Article 1.03 reference to Division 1 and Replace with the following.

All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction.

1.08 MEASUREMENT AND PAYMENT
Delete Article 1.08 A.1.a and A.1.c and replace with the new A.1.a and A.1.c.
Delete A.2.c and replace with the new A.2.c.
Delete B.1.c and replace with the new B.1.c.
Delete B.2.c and replace with the new B.2.c.
Delete C.1.a and C.1.c and replace with the new C.1.a and C.1.c.
Delete C.2.c and replace with the new C.2.c.
Delete D.1.c and replace with the new D.1.c.
Delete D.2.c and replace with the new D.2.c.
Delete E and replace with the new E.
Delete E.1.a, E.1.b, E.1.c and replace with new E.1.a, E.1b, and E.1.c.
Delete E.2.a, E.2.b, E.2.c and replace with new E.2.a, E.2b, and E.2.c.
Delete F in its entirety and replace with new G.1, G.2 and G.3
Delete G in its entirety and replace with new H.1, H.2 and H.3
Delete H in its entirety and replace with new I.1, I.2 and I.3
Delete I in its entirety and replace with new J.1.a, J.1.b, J.1.c, J.2.a, J.2.b, and J.2.c.
Modify J1, Changed Bid Name
Modify J2, Changed Bid Name
Delete J and replace with the new K.
Delete K in its entirety and replace with new L.1, L.2.a, L.2.b and L.2.c.
Add the following new Items M, N, O, P, Q and R.

A. Sanitary Sewer Gravity Main:
1. Trenched:
   a. Measurement: Each type and size of pipe installed in a trench will be measured along the centerline of the pipe from inside face of manhole to inside face of manhole.
   c. Includes: Unit price includes, but is not limited to, hand excavation, trench excavation, dewatering, placing bedding and backfill material, pipe joints, pipe connections, including connection to private building services and municipal sewer, testing, and inspection.
2. Trenchless:
   c. Includes: Unit price includes, but is not limited to, furnishing and installing pipe, trenchless installation, materials and equipment, pit excavation, dewatering, placing backfill material, pipe connections, including connection to private building services and municipal sewer, testing, and inspection.

B. Sanitary Sewer Gravity Main with Casing Pipe:
1. Trenched:
   c. Includes: Unit price includes, but is not limited to, furnishing and installing both carrier pipe and casing pipe, hand excavation, trench excavation, dewatering, placing bedding and backfill material, furnishing and installing annular space fill material (ONLY if shown on plans), casing spacers, end seals, pipe joints, pipe connections including connection to private building services and municipal sewer, testing, and inspection.
2. **Trenchless:**
   c. **Includes:** Unit price includes, but is not limited to, furnishing and installing both carrier pipe and casing pipe, trenchless installation, materials and equipment, pit excavation, dewatering, placing backfill material, pipe connections, including connection to private building services and municipal sewer, furnishing and installing annular space fill material (ONLY if shown on plans), casing spacers, end seals, testing and inspection.

C. **Sanitary Sewer Force Main:**
1. **Trenched:**
   a. **Measurement:** Each type and size of pipe installed in a trench will be measured along the centerline of the pipe from the inside face of the pump station to the inside face of manhole or inside face of manhole to inside face of manhole.
   c. **Includes:** Unit price includes, but is not limited to, trench excavation, dewatering, placing bedding and backfill material, pipe joints, joint restraints, pipe connections, including connection to private building services and municipal sewer, testing and inspection.

2. **Trenchless:**
   c. **Includes:** Unit price includes, but is not limited to, furnishing and installing pipe, trenchless installation, materials and equipment, pit excavation, dewatering, placing backfill material, pipe connections, including connection to private building services and municipal sewer, testing and inspection.

D. **Sanitary Sewer Force Main with Casing Pipe:**
1. c. **Includes:** Unit price includes, but is not limited to, furnishing and installing both carrier pipe and casing pipe, hand excavation, trench excavation, dewatering, placing bedding and backfill material, furnishing and installing annular space fill material (ONLY if shown on plans), casing spacers, end seals, pipe joints, joint restraints, pipe connections including connection to private building services and municipal sewer, testing, and inspection.

2. **Trenchless:**
   c. **Includes:** Unit price includes, but is not limited to, furnishing and installing both carrier pipe and casing pipe, trenchless installation, materials and equipment, pit excavation, dewatering, placing backfill material, pipe connections, furnishing and installing annular space fill material (ONLY if shown on plans), casing spacers, end seals, testing and inspection.

E. **Sanitary Sewer Service Stub:** shall read as follows: The portion of the sanitary sewer service from the main to the right of way or property line, or as specified in the contract documents (see figure 4010.201)

1. **Trenched:**
   a. **Measurement:** Each type and size of pipe will be measured in linear feet from the pipe connection to the end of pipe installed along with its associated cleanout.
   b. **Payment:** Payment will be made at the unit price per linear foot for each type and size of sanitary sewer service stub, and cleanout completed.
   c. **Includes:** Unit price includes, but is not limited to, hand excavation, trench excavation, placing bedding and backfill material, cleanout complete, tap, fittings, testing and inspection.
2. **Trenchless:**
   a. **Measurement:** Each type and size of pipe installed will be measured along the centerline of the pipe from the face of the wye or tee fitting to the end of the service pipe or reconnection point to the existing service pipe.
   b. **Payment:** Payment will be made at the unit price per linear foot for each type and size of sanitary sewer service pipe.
   c. **Includes:** Unit price includes, but is not limited to, furnishing and installing pipe, trenchless installation, materials and equipment, pit excavation, dewatering, placing backfill material, pipe connections, including connection to private building services and municipal sewer, testing, and inspection.

3. **Sanitary Sewer Service Pipe Only:**
   a. **Measurement:** Each type and size of pipe installed in a trench will be measured along the centerline of the pipe from the face of the wye or tee fitting to the end of the service pipe or reconnection point to the existing service pipe.
   b. **Payment:** Payment will be made at the unit price per linear foot for each type and size of sanitary sewer service pipe.
   c. **Includes:** Unit price includes, but is not limited to, hand excavation, trench excavation, dewatering, placing bedding and backfill material, pipe joints, pipe fittings, pipe connections, including connection to private building services and municipal sewer, testing, and inspection.

F. **Sanitary Sewer Service Relocation:**
   1. **Measurement:** Each type and size of pipe will be measured in linear feet from the pipe connection to the end of pipe installed along with its associated cleanout.
   2. **Payment:** Payment will be made at the unit price per linear foot for each type and size of sanitary sewer service relocated.
   3. **Includes:** Removal of existing pipe, hand excavation, trench excavation, furnishing new pipe, placing bedding and backfill material, connection back to existing service, compaction, cleanout, complete if shown in contract documents, tap, fittings, testing and inspection.

G. **Sewage Air Release Valve and Pit:**
   1. **Measurement:** Each completed installation, including valve, accessories, and pit, will be counted.
   2. **Payment:** Payment will be made at the unit price for each sewage air release valve and pit.
   3. **Includes:** Unit price, but not limited to, hand excavation, trench excavation, placing bedding and backfill material, compaction, and testing.

H. **Removal of Sanitary Sewer:**
   1. Pipe removal will not be measured for reconstruction on the same alignment or on spot repair projects.
   2. **Payment:** Payment will be made at the unit price per linear foot for each type and size of pipe.
   3. **Includes:** Unit price, but not limited to, removal, disposal, and capping (if specified) of pipe.
I. Sanitary Sewer Cleanout:
   1. Double Sweep Cleanout:
      a. Measurement: Each complete sanitary sewer double sweep cleanout will be counted.
      b. Payment: Payment will be made at the unit price for each cleanout, complete.
      c. Includes: Unit price includes, but is not limited to, plug at the end of the main, double sweep tee, fittings, riser pipe, cap with screw plug, casting, and concrete casting pad encasement.
   2. LMK Vac-A-Tee Cleanout:
      a. Measurement: Each complete cleanout will be counted.
      b. Payment: Payment will be made at the unit price for each cleanout, complete.
      c. Includes: Unit price includes, but is not limited to, excavation via vacuum or hydro excavation, installation of approved saddle to existing sewer service, riser pipe, cap with screw plug, casting, and concrete casting pad encasement.

J. Connection to Existing Manhole:
Connections to existing manhole will be measured and paid according to Section 6010, 1.08

K. Sanitary Sewer Abandonment:
   1. Plug:
      Plugging sanitary sewers is incidental to other work and will not be paid for separately.
   2. Fill and Plug:
      a. Measurement: Each size of pipe filled and plugged will be measured in cubic yards of fill material used, obtained from load tickets.
      b. Payment: Payment will be at the bid unit price per cubic yard of fill material used.
      c. Includes: Unit price includes, but not limited to, equipment, materials, and labor to complete fill and plug sewer per contact document.

L. Sanitary Sewer Lateral Wye Connection:
   1. Measurement: Each sanitary sewer wye will be counted.
   2. Payment: Payment will be made at the unit price for each wye installed.
   3. Includes: Unit price includes, but is not limited to, excavation, placing bedding and backfill material, wye, bedding and backfill material will be paid separately, at the bid unit price.

M. Sanitary Sewer Service Stub, Force Main, 1 1/4" HDPE:
   1. Measurement: Each type and size of force main service stub will be measured in lineal feet along the centerline of the force main service, from the stop box to the connection point at the E-One pump.
   2. Payment: Payment will be made at the unit price per lineal foot of force main service pipe installed.
   3. Includes: Unit price includes, but is not limited to, excavation, boring placing bedding and backfill material, connection to the pump and curb stop. Bedding and backfill material will be paid separately, at the bid unit price.

N. Sanitary Sewer Service Stub, Force Main, Curb Stop with Box:
   1. Measurement: Each type and size of force main service curb stop will be counted
   2. Payment: Payment will be made at the unit price for each curb stop installed.
3. **Includes**: Unit price includes, but is not limited to, excavation, placing bedding and backfill material, connection fittings, curb stop and box, curb box extensions. Bedding and backfill material will be paid separately, at the bid unit price.

**O. Sanitary Sewer Service Stub, Force Main, E-One Pump System:**
1. **Measurement**: Each type and size of Environmental One (E-One) Pump System will be counted.
2. **Payment**: Payment will be made at the unit price for each of E-One Pump System installed.
3. **Includes**: Unit price includes, but is not limited to, complete installation of the E-One pump system according to manufacturer’s instructions, E-One Pump system (E-One Extreme Simplex Pump “D” Series 240v, tank, alarm disconnect panel, wiring from the panel to the pump), connection of the owner supplied power source to the alarm disconnect panel, excavation, placing bedding and backfill material, concrete ballast, redundant check valve, connection to existing gravity lateral, fittings, Permits and fees. Bedding and backfill material will be paid separately at the bid unit price.

**P. Sanitary Sewer Service Stub, Pump, Clean and Abandon Septic Tank(s):**
1. **Measurement**: Measurement will be in gallons of waste removed and disposed of at the sewage treatment plan and will be obtained from the manifest received at the time of disposal.
2. **Payment**: Payment will be made at the unit price per gallon of waste removed
3. **Includes**: Unit price includes, but is not limited to: equipment, labor and materials to completely remove the contents of the existing septic tank(s) and to flush with contractor supplied water to remove any remaining residue; Completely collapse the lid into the tank and fill the tank with compacted sand or flowable mortar.

**Q. Nitrile Butadiene Rubber (NBR) Gaskets:**
1. **Measurement**: Each type and size of gasket installed will be counted.
2. **Payment**: Payment will be made at the unit price for each gasket Installed.
3. **Includes**: Unit price includes, but is not limited to, equipment, labor and materials required for complete installation of the gasket.

**R. Sanitary Sewer Main Fittings by Weight:**
1. **Measurement**: The weight of each type and size of fitting installed will be calculated.
2. **Payment**: Payment will be made at the unit price for the weight of each fitting installed.
3. **Includes**: Unit price includes, but is not limited to, equipment, labor and materials required for complete installation of the fitting.

**S. Sanitary Sewer Main Fittings by Count:**
1. **Measurement**: Each type and size of fitting installed will be counted.
2. **Payment**: Payment will be made at the unit price for each fitting installed.
3. **Includes**: Unit price includes, but is not limited to, equipment, labor and materials required for complete installation of the fitting.

**PART 2 - PRODUCTS**

**2.01 SANITARY SEWER (Gravity Mains)**
Modify Article 2.01 A.1 to read as follows, delete 2.b and add new 5.
Delete B.2 in its entirety and replace with new B.2 and add new 5.
Articles 2.01 C thru F are not allowed.
Delete G.1.b in its entirety and replace with the new G.1.b.
Delete G.2.b and G.2.c in their entirety and replace with the new G.2.b and G.2.c.
Delete G.5 in its entirety and replace with the new G.5.
Add the following new G.6.d.
Delete H in its entirety

A. Solid Wall Polyvinyl Chloride Pipe (PVC) shall read as 8 inch to 15 inch:
   1. 8 Inch to 15 inch SDR-26 only
   5. PVC not allowed in areas under or potentially under the influence of poly-hydrocarbons.

B. Solid Wall Polyvinyl Chloride Pipe (PVC) shall read as 18 inch to 24 inch:
   2. Pipe stiffness per ASTM D2412, 115 psi
   5. PVC not allowed in areas under or potentially under the influence of poly-hydrocarbons.

C thru F Not allowed.

G.1.b Minimum Thickness Class 51

G.2.b Cement mortar lining

G.2.c Comply with AWWA C104

G.5 Fittings: Fittings shall be USA made compact ductile iron
   a. Conform to AWWA C153.
   b. Mechanical joint (MJ) nuts, bolts, gaskets and glands shall be USA made.
      1. Conform to AWWA C111
      2. Nuts and bolts shall be high strength low allow steel and be marked to identify
         material, size and producer.
      3. Nuts and bolts shall have a ceramic filled, baked-on fluorocarbon resin
         coating (Cor-Blue)

G.6.d Polyethylene Encasement shall be translucent or black

H, I, J. Only allowed with the written approval of the City Engineer.

2.02 SANITARY SEWER FORCE MAINS
Delete D in its entirety and replace with the new D
Add new F, G, H, and I to Article 2.02

D. Tracer Wire: Comply with Figure 5010.102
   1. Tracer wire will be required on all force mains
   2. Tracer Wire: Stranded 10-gauge copper wire conductor
      a. Insulation Material: linear low density polyethylene (LLDPE) insulation suitable for
         direct burial applications
      b. Insulation Thickness: 30 mil

F. Joint Restraint:
   1. Retainer Gland:
      a. Wedge type retainer gland
      b. DIP: EBAA Iron, Inc. Megalug Series 1100 or USA made approved equal
      c. Special restraining pipe joints integral to the DIP with approval of the Engineer
   2. Joint Harness:
      a. Wedge type restraint harness
      b. High strength low alloy (Corten) rods and nuts
      c. Cor-Blue split ring assembly tee bolts
d. EBAA Iron, Inc. Series 1700 Megalug Restraint Harness or USA made approved equal
e. Special restraining pipe joints integral to the DIP with approval of the Engineer

G. High Density Polyethylene (HDPE) 11/4" TO 6":
1. Pipe shall be manufactured from a PE 3408 resin listed with the Plastic Pipe Institute (PPI) as TR-4.
2. The resin material will meet the specifications of ASTM D3350-99 with a cell classification of PE: 345464C.
3. Pipe shall have a manufacturing standard of ASTM F714.
4. Pipe shall be DR 11 (160psi WPR) unless otherwise specified on the plans.
5. The pipe shall contain no recycled compounds except that generated in the manufacturer's own plant from resin of the same specification from the same raw material.
6. Outside diameters shall be based on iron pipe size (IPS).
7. Pipe shall be manufactured from a PE 3408 resin.

H. Butt Fusion Fittings:
1. Fittings shall be PE3408 HDPE, Cell Classification of 345464C as determined by ASTM D3350-99.
2. Butt Fusion Fittings shall have a manufacturing standard of ASTM D3261.
3. Molded & fabricated fittings shall have the same pressure rating as the pipe unless otherwise specified on the plans.
4. Fabricated fittings are to be manufactured using a Data Logger. Temperature, fusion, pressure and a graphic representation of the fusion cycle shall be part of the quality control records.

I. Electrofusion Fittings:
1. Fittings shall be PE3408 HDPE, Cell Classification of 345464C as determined by ASTM D3350-99.
2. Electrofusion Fittings shall have a manufacturing standard of ASTM F-1055.
3. Fittings shall have the same pressure rating as the pipe unless otherwise specified on the plans.

2.04 SANITARY SEWER SERVICES
Article 2.04 2 thru 4 Not allowed.

2 thru 4 Not allowed.

2.06 SANITARY SEWER CLEANOUT
Add new A
Add new B

A. Double Sweep Cleanout: Shall be a double sweep tee, comply with figure 4010.203.

B. LMK Vac-A-Tee Cleanout: As manufactured by LMK Technologies, Inc. or equal.
1. Shall be a one piece, molded PVC saddle and shall be compatible with the riser pipe and solvent welded to the boss of the saddle. The saddle shall conform to the lateral pipe by a snap fit where the lateral pipe is either four (4") or six (6") in diameter.
2. The riser pipe shall be SDR 26 PVC. The resin shall be a one-part marine grade adhesive/sealant designed for the application of a Vac-A-Tee saddle.
3. The cleanout shall comply with figure 4010.203

PART 3 - EXECUTION

3.04 GRAVITY MAIN PIPE JOINTING
Delete Article 3.04 B in its entirety and replace with new B.
Delete Article 3.04 E in its entirety.
Delete Article 3.04 F in its entirety and replace with new F.

B. Polyvinyl Chloride Pipe (PVC):
   1. Coat rubber gasket and joint with soap-based lubricant immediately prior to closing the joint.

F. Connection between Dissimilar Pipes:
   1. The inside diameter and inverts of the existing mainline and/or service pipe material shall match with the new sewer and/or service pipe, and shall be extended to the existing sewer service where necessary.
   2. The pipe transition shall be made with a manufactured flexible elastomeric, plastic, or rubber coupling approved by the Jurisdiction such as Fernco or Indiana Seal.
   3. All couplings shall have two (2) stainless steel clamps for positive attachment to sewer pipe and shall provide a positive seal infiltration and shall allow the pipe inverts to match elevations.
   4. A compression seal ring will not be allowed to make up the difference in outside diameters.
   5. Connections to the existing sewer shall be made at a point where the existing pipe is sound and free of structural defects. If applicable, the sewer main shall be severed to that a smooth pain end spigot exists.

3.06 SANITARY SEWER SERVICE STUBS
Delete Article 3.06 C, C.3. and C.5 in their entirety and replace with new C, C.3. and C.5

C. Install service stub from sewer main to the property line or as specified in the contract documents.
   Comply with Figure 4010.201.
   3. Terminate end of service stub with a double sweep cleanout, per Figure 4010.203.
   5. For undeveloped properties, place a cleanout at the end of the sanitary sewer service.
      Mark the end of the service line as required by the Jurisdiction or as specified in the contract documents, typical 4x4 wood post painted green, marked with depth to flow line.

3.10 SANITARY SEWER CLEANOUT
Delete 3.10 in its entirety and replace with new 3.10

A. Provide cleanouts where specified in the contract documents. Comply with Figure 4010.203.

B. Provide LMK Vac-A-Tee Cleanout where specified in the contract documents.
   1. In grass areas, the sod shall be neatly cut and removed. In pavement areas, the pavement shall be straight-line marked, cut and removed.
   2. The vacuum excavated borehole shall be approximately twenty-inches (20") in diameter and all spoils shall be deposited in a vacuum truck.
   3. The adhesive/sealant shall be applied to the underside of the saddle at no less than a ¼" thick layer.
   4. The saddle and riser pipe shall be carefully inserted into the bore hole, setting the saddle onto the pipe, applying a downward force causing the saddle to expand and snap onto the lateral pipe.
   5. Immediately after the saddle has been affixed to the lateral pipe, the riser pipe should be secured by backfilling the bore hole with sand or pea-gravel to within 6-inches of the original grade.
   6. An exfiltration test shall be performed by filling the riser pipe with a 6-foot column of water. The test shall be performed no less than 12-hours from the time of affixing the saddle to the pipe. The column of water shall be held for five minutes. The water level shall be measured from the top of the riser pipe. Zero leakage is allowed.
7. A diamond core saw shall be introduced into the riser pipe, the crown of the pipe is cut and the coupon is removed.
8. An approved cap or cover is installed at ground level or below ground level.
9. Should soil conditions reveal running sand or similar conditions that would prohibit the installation, the installation shall be terminated and the borehole filled with flowable grout. The surface area shall be restored to its original condition.
10. The site shall be left clean and the property restored to conditions equal to site conditions prior to the VAC-A-TEE® installation.

Add new 3.14

3.14 SANITARY SEWER MAIN AND LATERAL INSTALLATION WITH NBR GASKETS

A. Sanitary sewer main and laterals must be installed with NBR gaskets where site conditions are under the influence or may become under the influence of benzene/petrol.

End of Section 4010 – SANITARY SEWERS
Section 4020 – STORM SEWERS

PART 1 - GENERAL

1.03 SUBMITTALS.
Delete Article 1.03 reference to Division 1 and Replace with the following.

All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction.

1.08 MEASUREMENT AND PAYMENT
Delete Article 1.08 A.1.a and c in their entirety and replace with new A.1.a and c
Delete Article 1.08 A.2.c in its entirety and replace with new A.2.c
Delete Article 1.08 B.1.c in its entirety and replace with new B.1.c
Delete Article 1.08 B.2.c in its entirety and replace with new B.2.c
Delete Article 1.08 C.1 in their entirety and replace with new C.1.

A. Storm Sewer:
1. Trenched:
   a. Measurement: Each type and size of pipe installed in a trench will be measured in linear feet along the centerline of the pipe from inside face of intake or manhole to inside face of intake or manhole. Where the end of the pipe discharges to a ditch or waterway, measurement will be to the end of the pipe, exclusive of apron. Lengths of elbows and tees, where permitted, will be included in the length of the pipe measured.
   
   c. Includes: Unit price includes, but is not limited to, trench excavation, dewatering, placing bedding and backfill material, joint wrapping, wyes and other fittings, pipe joints, pipe connections, testing, and inspection.

2. Trenchless:
   c. Includes: Unit price includes, but is not limited to, furnishing and installing pipe, trenchless installation, materials and equipment, pit excavation, dewatering, placing backfill material, pipe connections, including connection to private building services and municipal sewer, testing, and inspection.

B. Storm Sewer with Casing Pipe:
1. Trenched:
   c. Includes: Unit price includes, but is not limited to, furnishing and installing both carrier pipe and casing pipe, trench excavation, dewatering, placing bedding and backfill material, if specified in the contract documents furnishing and filling annular space fill material, pipe joints, pipe connections, testing, and inspection.

2. Trenchless:
   c. Includes: Unit price includes, but is not limited to, furnishing and installing pipe, trenchless installation, materials and equipment, pit excavation, dewatering, placing backfill material, pipe connections, including connection to private building services and municipal sewer, testing, and inspection.

C. Removal of Storm Sewer:
1. Measurement: Each type and size of pipe removed will be measured in linear feet from end to end. Pipe removal will not be measured for payment for reconstruction on the same alignment or on repair projects.
PART 2 - PRODUCTS

2.01 STORM SEWERS
Delete A.3, B.3 and C.3 in their entirety and replace with new A.3, B.3 and C.3
Add A.4, B.4 and C.4
Delete G, H, I, J, K,
Delete L.1 and L.2 in their entirety and replace with new L.1 and L.2
Delete M in its entirety and replace with new M
Delete N in its entirety and replace with new N
Delete O

A. Reinforced Concrete Pipe (RCP):
   3. Use tongue and groove joints with rubber O-ring or profile gasket complying with ASTM C443. If specified, cold applied bituminous jointing material may be used with wrapped exterior joints.
   4. If specified, wrap exterior joints complying with ASTM C877.

B. Reinforced Concrete Arch Pipe (RCAP):
   3. Use tongue and groove joints with rubber O-ring or profile gasket complying with ASTM C443. If specified, cold applied bituminous jointing material may be used with wrapped exterior joints.
   4. If specified, wrap exterior joints complying with ASTM C877.

C. Reinforced Concrete Elliptical Pipe (RCEP):
   3. Use tongue and groove joints with rubber O-ring or profile gasket complying with ASTM C443. If specified, cold applied bituminous jointing material may be used with wrapped exterior joints.
   4. If specified, wrap exterior joints complying with ASTM C877.

Delete G, H, I, J, K

M. Bituminous Jointing Material: Use a cold applied mastic sewer joint sealing compound recommended by the manufacturer for the intended use and approved by the Jurisdiction complying with AASHTO M198; must be used with external joint wrap meeting ASTM C877.

N. Engineering Fabric: Comply with Iowa DOT Materials I.M. 4196.01. Use of this material requires specific approval of the engineer

Delete O.

End of Section 4020 – STORM SEWERS
Section 4030 – PIPE CULVERTS

PART 1 - GENERAL

1.03  SUBMITTALS
Delete Article 1.03 reference to Division 1 and Replace with the following.

   All materials to be incorporated into the work must have certifications furnished which show that
   the materials comply with the Specifications prior to any construction.

1.08  MEASUREMENT AND PAYMENT
Delete Article 1.08 A.1.c and replace with new A.1.c.
Delete B.3 and replace with new B.3.

   A.1.c.  Includes: Unit price includes, but is not limited to, trench excavation, dewatering, placing
   bedding and backfill material, connectors, testing and inspection.

   B.3.  Includes: Unit price includes, but is not limited to, trench excavation, placing bedding
   and backfill material, connectors, and other appurtenances.

PART 2 - PRODUCTS

2.01  PIPE CULVERTS
Delete Article B.4, 5, 6, 7, and 8 in their entirety
Delete C and D in their entirety.

End of Section 4030 – PIPE CULVERTS
Section 4040 – SUBDRAINS AND FOOTING DRAIN COLLECTORS

PART 1 - GENERAL

1.03    SUBMITTALS
Delete Article 1.03 reference to Division 1 and Replace with the following.

All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction.

1.08    MEASUREMENT AND PAYMENT
Delete Article 1.08 A.3, B.3, C.3, D.3 and replace with new A.3, B.3, C.3, D.3
Add new F to Article 1.08

A.3.    Includes: Unit price includes, but it not limited to, trench excavation, engineering fabric, placing bedding and backfill material, connectors, and fittings.

B.3.    Includes: Unit price includes, but it not limited to, trench excavation, pipe wyes, tap, placing bedding and backfill material, pipe wyes, fittings, and adjustment to finished grade.

C.3.    Includes: Unit price includes, but it not limited to, trench excavation, placing bedding and backfill material, casting, connectors, and fittings.

D.3.    Includes: Unit price includes, but it not limited to, core drilling of structures and pipe, flexible connectors (structures) and saddles (pipe), flexible sealant, coupling bands, and rodent guards for pipes 6 inches and smaller.

F.    Manufactured Trench Drain:
1.    Measurement: Each type and size of trench drain will be measured in linear feet, along the centerline of the casting or grate.

2.    Payment: Payment will be at the bid unit price per linear foot of each type and size of trench drain installed.

3.    Includes: Unit Price Includes, but is not limited to, equipment, labor and materials to required for complete installation of manufactured trench drain.

PART 2 - PRODUCTS

2.07    ENGINEERING FABRIC
Delete 2.07 and replace with new 2.07

Use fabric complying with Iowa DOT Article 4196.01-2

End of Section 4040 – SUBDRAINS AND FOOTING DRAIN COLLECTORS
Section 4050 – PIPE REHABILITATION

PART 1 - GENERAL

1.01 SECTION INCLUDES
C. Not Allowed in Article 1.01
D. Not Allowed in Article 1.01

1.02 DESCRIPTION OF WORK
A.2 Not Allowed in Article 1.02
A.3 Not Allowed in Article 1.02

1.03 SUBMITTALS
Delete Article 1.03 reference to Division 1 and Replace with the following.

All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction.

Add New A thru E

Contractors must submit the following unless they have prequalified under a separate City of Dubuque contract. Prequalification is valid for a maximum of five (5) years or until such time as there is a significant change in generally accepted practices, whichever is sooner.

A. Provide, as a minimum, the following information for evaluation
   1. Emergency plan detailing procedures to be followed in event of pump failures, sewer overflows, service backups, and sewage spillage. Maintain a copy of emergency plan on site for duration of project
   2. A letter from a certified public accountant stating that the manufacturer is financially sound by generally accepted accounting principles

B. Product Information:
   1. Product name
   2. Year product first available in the United States.
   3. Total footage or number of line segments installed in the United States.
   4. Results of all available product testing, including but not limited to leakage, physical properties, pipe stiffness, chemical resistance, strain-corrosion, external loading, flow characteristics, infiltration/inflow reductions, structural capacity, and external hydrostatic loading capacity.
   5. Samples of before and after product if requested.
   7. Typical lining thickness for pipe sizes included in the project.

C. Manufacturer Information:
   1. Manufacturer name.
   2. Years of experience manufacturing the product.
   3. Country of manufacture of all product components.
   4. Quality control procedures for product manufacture, including inspection requirements, testing procedures, and allowable tolerance levels.
   5. Related ASTM standards, or other nationally recognized standards for product manufacturing.
D. Installer Information:
1. Installer name.
2. Completed project list for last five years including for each project and year completed, client name/address/contact person/phone number, footages installed by pipe diameter, and number of lateral reinstatements.
3. Detailed installation procedures, including estimated times for each task, lateral reinstatement methods, number of required excavations, and other items unique to each product.
4. Video of installation process, if requested.
5. Evidence of properly trained personnel.
6. Related ASTM standards or any nationally recognized standards for product installation.
7. Available equipment list.
8. Detailed procedures for repairing the product in the event of future damage or failure and for tapping future service connections, including and required specialized equipment or training.
9. Videos of two rehabilitated sewer sections showing before and after conditions if requested.
10. Additional information may be required. The submittal of prequalification information in no way implies that the product, manufacturer, or installer will be deemed to be qualified. The Contracting Authority, in its sole discretion, will determine whether a product, manufacturer, or installer does or does not qualify as an approved equal.
11. The Contractor shall submit to the owner a statement, demonstrating the following:
   a. Must have a minimum of three (3) years of continuous experience installing CIPP liners in pipe of a similar size, length and configuration as contained in this contract.
   b. Minimum of 200,000 linear feet of shop wet-out liner installation is required and minimum of six (6) onsite wet-out installations are required as applicable to this contract.

E. Project deliverables shall be turned in to the project owner at the completion of the project. The contractor shall furnish a project binder containing DVD's of the pre and post videos as well as pre and post Pipetech printed reports, of all sewer mains that were lined during that particular project. The binder shall include a directory page, which will include the following information. Page reference numbers for each location listed for each DVD, upstream manhole number, downstream manhole number, pipe number, street location, DVD number.

1.04 SUBSTITUTIONS
Article 1.04 is Not Allowed

1.07 SPECIAL REQUIREMENTS
Delete D.2 and replace with new D.2

D.2. All connections to the sewer main shall be flushed with water and dye to verify the connection location at the sewer main.
1.08 MEASUREMENT AND PAYMENT
Delete A thru C in their entirety and replace with new A thru H

A. Sanitary Sewer Main, Inspection, CCTV:
   1. Measurement: Each type and size of pipe will be measured in linear feet along the centerline of the pipe, from inside face of manhole to inside face of manhole.
   2. Payment: Payment will be made at the unit price per linear foot.
   3. Includes: Unit price includes removal of internal obstructions, pipe cleaning, inspection, and all costs with the public notification program.

B. Resin-Impregnated (CIPP) Sanitary Sewer Main, Lining:
   1. Measurement: Each type and size of pipe lining will be measured in linear feet along the centerline of the pipe, from inside face of manhole to inside face of manhole.
   2. Payment: Payment will be made at the unit price per linear foot of each type and size of pipe lining.
   3. Includes: Unit price includes removal of internal obstructions, pipe cleaning, inspection, and all costs with the public notification program.

C. Sanitary Sewer Service, Inspection, CCTV:
   1. Measurement: Inspection will be measured in linear feet along the center line of the pipe from inside face of the main to the end of the inspected distance.
   2. Payment: Payment will be made at the unit price per linear foot.
   3. Includes: Unit price includes pipe inspection, and all costs associated with, public information and notification program. The contractor shall be responsible for notifying the residents 24 hours in advance of performing the work.

D. Resin-Impregnated (CIPP) Lateral Service, Lining:
   1. Measurement: Each service to be lined will be measured in linear feet from inside face of the main to the termination point of the liner material.
   2. Payment: Payment will be made at the unit price per linear foot for each diameter of lateral lined.
   3. Includes: Unit price includes but not limited to, all equipment and materials required to perform the work, any sewer pumping that may be needed, grouting, removal of internal obstructions, heavy pipe and lateral cleaning, inspection via post CCTV lateral launch camera or lateral plumbing camera in color, and all costs associated with public information and notification program. The contractor shall be responsible for notifying the residents 24 hours in advance of performing the work.

E. Resin-Impregnated (CIPP) Lateral Service, Interface Seal:
   1. Measurement: Each Sanitary Sewer Service Connection to Main, Interface Seal will be counted.
   2. Payment: Payment will be made at the unit price for each Sanitary Sewer Service Connection to Main, Interface Seal.
   3. Includes: Unit price includes but not limited to, all equipment and materials required to perform the work, connection to 4” or 6” diameter lateral, any sewer pumping that may be needed, removal of internal obstructions, heavy pipe and lateral cleaning, inspection via post CCTV lateral launch camera or lateral plumbing camera in color, and all costs associated with public information and notification program. The contractor shall be responsible for notifying the residents 24 hours in advance of performing the work.
F. **Sanitary Sewer Service Reconnection:**
   1. **Measurement:** Each active existing building sanitary sewer service reconnected to the pipe lining, including the services reconnected by excavating and reconnecting services or by trenchless reconnection methods, will be counted.
   2. **Payment:** Payment will be made at the unit price for each reconnection.
   3. **Includes:** Unit price includes but not limited to, removal of internal obstructions, pipe cleaning, and all costs associated with public information and notification program.

G. **Spot Repairs by Pipe Replacement:** Either of the following methods will be used for measurement and payment of spot repairs by pipe replacement.
   1. **Spot Repair by Count:**
      a. **Measurement:** Each spot repair location will be counted.
      b. **Payment:** Payment will be made at the unit price for each spot repair.
      c. **Includes:** Unit price includes but is not limited to, uncovering and removing of existing pipe, furnishing and installing replacement pipe and connections, placing backfill material for replacement pipe, and surface restoration per the City of Dubuque’s surface restoration policy.
   2. **Spot Repair by Linear Foot:**
      a. **Measurement:** Each spot repair location will be measured in linear feet along the centerline of the replacement pipe.
      b. **Payment:** Payment will be made at the unit price per linear foot of spot repair.
      c. **Includes:** Unit price includes but is not limited to, uncovering and removing of existing pipe, furnishing and installing replacement pipe and connections, placing backfill material for replacement pipe, and surface restoration per the City of Dubuque’s surface restoration policy.

H. **Chemical Grouting of Pipe:**
   1. **Measurement:** Per gallon injected as approved for the discontinuation of leaks.
   2. **Payment:** Will be made per the unit price per gallon injected
   3. **Includes:** Unit price includes but is not limited to furnishing all materials, labor, and equipment to complete all work specified. The diameter of the sewers to be sealed, as necessary and as approved by the owner, are listed herein. The contractor shall be paid for the successful installation of the product as per the manufacturer’s instructions.

### PART 2 - PRODUCTS
Delete 2.01 thru 2.04 in their entirety.
2.05: Modified bid name
Delete 2.08 and replace with new 2.08
Add new, 2.10, 2.11, 2.12, 2.13

2.05 **RESIN-IMPREGNATED (CIPP) SANITARY SEWER MAIN LINING**
2.05 A. Add new A.7
2.05 Add new D.

A. 7. Liner tube shall be constructed with longitudinal stitching and thermal tape seal bond.
D. LMK Technologies, Insignia Hydrophilic end seals shall be used to seal pipe ends at all manhole connections.

2.06 Not Allowed.
2.07 Not Allowed.
2.08 PIPE REPAIR COUPLINGS FOR SPOT REPAIRS BY PIPE REPLACEMENT

A. Transitions between dissimilar pipe materials shall be accomplished with non-shear, flexible elastomeric plastic or rubber couplings as manufactured by Fernco, Mission or an approved equal. All couplings shall have (4) stainless steel clamps for positive attachment and shall provide a positive seal against infiltration and exfiltration.

2.10 CHEMICAL GROUTING OF PIPE
Grout shall be Avanti AV-100 or equal.

2.11 RESIN-IMPREGNATED (CIPP) LATERAL SERVICE, LINING

A. Lining Material:
   1. CIPP: CIPP shall be designed per ASTM F1216, Appendix X1. Materials and Installation practices shall adhere to the minimum requirements of ASTM F2561-11.
   2. Product: Liner shall be, T-Liner as manufactured by LMK Technologies, Inc. or equal.
   3. Liner Assembly: The liner assembly shall be continuous in length and consist of one or more layers of absorbent textile material i.e. needle punched felt, circular knit or circular braided tubes that meet the requirements of ASTM F1216 and ASTM D5813 Sections 6 and 8. No intermediate or encapsulated elastomeric layers shall be in the textile that may cause de-lamination in the cured in-place pipe. The textile tube and sheet shall be constructed to withstand installation pressures, have sufficient strength to bridge missing pipe segments, and flexibility to fit irregular pipe sections. The wet-out textile tube and sheet shall meet ASTM F 1216, 7.2 as applicable, and shall have a uniform thickness and 5% to 10% excess resin distribution that when compressed at installation pressures will meet or exceed the design thickness after cure.

   4. Mainline Liner Tube: The main sheet will be flat with one end overlapping the second end and sized accordingly to create a circular lining equal to the inner diameter of the main pipe. The interior of the textile sheet shall be laminated with an impermeable, translucent flexible membrane. The textile sheet before insertion shall be permanently marked on the membrane as a “Lateral Identification” correlating to the address of the building the lateral pipe provides service.

   5. Lateral Liner Tube: The exterior of the lateral liner tube shall be laminated with an impermeable, translucent flexible membrane. Longitudinal seams in the tube shall be stitched and thermally sealed. The lateral tube will be continuous in length and the wall thickness shall be uniform. The lateral tube will be capable of conforming to offset joints, bells, disfigured pipe sections and pipe diameter transitions.

   6. Mainline Connection: The main tube and lateral tube shall be formed as a one-piece assembly by stitching the lateral tube to the main sheet aperture. The connecting end of the lateral tube shall be shaped to match the aperture and curvature of the main tube. The lateral tube and main tube are connected by stitching and sealing the stitching using a flexible UV cured adhesive/sealant. The main and lateral tubes are assembled in the shape of a “T” or WYE with corresponding dimensions.

   7. Gasket Seals: The mainline connection shall include a seamless molded flange shaped end seal gasket attached to the main liner tube by use of stainless steel snaps. The lateral tube shall include an O-ring gasket attached six-inches from the upstream terminating end of the lateral tube.

B. Resin Material:
1. The resin/liner system shall conform to ASTM D5813 Section 8.2.2.
2. The resin shall be a corrosion resistant polyester, vinyl ester, epoxy or silicate resin and catalyst system that when properly cured within the composite liner assembly, meets the requirements of ASTM F1216, the physical properties herein, and those which are to be utilized in the design of the CIPP, for this project.
3. The resin shall produce CIPP, which will comply with the structural and chemical resistance requirements of ASTM F1216.

2.12 RESIN-IMPREGNATED (CIPP) LATERAL SERVICE, INTERFACE SEAL:
Refer to Section 4050 2.11 for Product Information.

2.13 SANITARY SEWER SERVICE, INSPECTION, CCTV
1. Camera:
   A. Produce a high resolution, quality color video image.
   B. Integral lighting to provide proper illumination and a clear video image of the entire periphery of the pipe.
   C. Capable of operating in 100% humidity conditions.
2. Provide closed-circuit video inspection equipment capable of displaying on screen footage of camera distance measured to within 1% of actual distance.
3. Record the inspection in color.

PART 3 - EXECUTION

3.01 EXAMINATION
Add new B.3 to Article 3.01

   B.3. Pre and post videos shall be submitted on a weekly basis for review.

3.02 BYPASSING SEWAGE
Add new D to Article 3.02

   D. Traffic control and environmental safety according to Section 1070.

3.03 OBSTRUCTIONS
Delete B and replace with new B, add new D

   B. If a point repair is determined by the contractor as being needed, then the contractor shall notify the engineer of the need and the owner will either:
      1. Perform the necessary repair, the owner will coordinate the repair within four (4) weeks of receiving the notification.
      2. At its discretion, have this work performed by a third party.
      3. At its discretion, have the contractor perform the necessary repair.
      4. Should a contractor’s equipment become lost during operation, the contractor shall be responsible for the recovery of said equipment along with any point repair as necessary.

   D. Protruding Service Connections:
      1. Protruding service connections ½” or less: When inspection reveals a protruding service connection of ½” or less, the contractor may line over it.
      2. Protruding service connections greater than ½”: It shall be the responsibility of the contractor to clear the line of protruding service connections greater than ½” in length. The protruding service connections shall be ground flush with the mainline pipe prior to lining. Any protruding service connections greater than ½” shall be pointed out to the Engineer prior to grinding.
DIVISION 4 - SEWERS AND DRAINS
Section 4050 – PIPE REHABILITATION

3.05 Article 3.05 Not Allowed.

3.06 RESIN IMPREGNATED (CIPP) SANITARY SEWER MAIN, LINING
Delete E and replace with new E
Modified Bid name 3.06

E. Service Reconnections:
1. The Contractor shall outline specific repair or replacement procedures for potential defects in the installed CIPP. Repair/replacement procedures shall be as recommended by the CIPP system manufacturer and shall be submitted to the Owner at the Pre-Construction Meeting.
   a. Repairable defects in the installed CIPP shall be specifically defined by the Contractor based on manufacturer’s recommendations, including a detailed step-by-step repair procedure, resulting in a finished product meeting the requirements of SUDAS.
   b. Un-repairable defects to the CIPP shall be clearly defined by the Contractor based on the manufacturer’s recommendations, including a recommended procedure for the removal and replacement of the CIPP.
2. Defects in the installed CIPP that will not affect the operation and long term life of the product shall be identified and defined. The Owner reserves the right to request an independent evaluation of a defective CIPP identified and defined by the Contractor to not affect the operation and long term life of the product. In the event, the Owner/Owner's representative determines the defect does not result in a finished product meeting the requirements of SUDAS, the Contractor shall follow SUDAS Division 4, Section 4050 – Pipe Rehabilitation, Part 3 – Execution, 3.06 Resin Impregnated CIPP Lining, D (1).
3. After the sewer lining is complete and any insitu testing is complete, the contractor shall re-establish all service connections. This shall be done without excavation from the interior of the pipe by means of a television camera and a remotely controlled cutting device.
4. All service edges shall be smoothed with a wire brush attachment after internal reinstatement.
5. Dye testing of service connections shall be performed during pre-lining televising at no additional cost to the owner; this is to be performed to establish whether services are active.
6. The contractor shall reopen active services only and services to vacant lots only as directed by the Engineer. The responsibility for determining which services are inactive and which do not serve vacant lots shall be the contractor's.
7. Holes cut through the liner shall be neat, smooth, and to the full diameter of the existing connection in order to prevent blockage at the connection.
8. Coupons shall be removed at the downstream manhole. Do not open abandoned service connections except at Engineer's direction. If abandoned service connections are opened without Engineer's approval, perform an internal spot repair to close the connection, at no additional cost to the owner.
9. All leaks shall be sealed or stopped with grout prior to lining.
10. Pipe ends shall be sealed with Hydrophilic end seals at all manhole connections.

3.07 Article 3.07 Not Allowed

3.08 SPOT REPAIRS BY PIPE REPLACEMENT
Add new G
G. Traffic control and environmental safety according to Section 1070

H. Material and installation according to Section 4010

3.10 CHEMICAL GROUTING OF PIPE
Contractor shall install Chemical Grout per the manufacturer’s instructions. If grout sealing is determined by the Contractor to be necessary, the Contractor shall notify the Owner for approval, prior to installation.

3.11 RESIN IMPREGNATED (CIPP) LATERAL SERVICE, LINING
A. Prior to entering access areas such as manholes, an excavation pit, performing inspection or cleaning operations, an evaluation of the atmosphere to determine the presence of toxic or flammable vapors or lack of oxygen shall be undertaken in accordance with local, state, or federal safety regulations.

B. Cleaning and Inspection – As per NASSCO Standards.

C. If a cleanout is required, the cleanout shall be located no less than within two (2) feet of the finished liner.

D. The upstream side of the cleanout (if installed) shall be plugged during insertion and curing of the liner assembly ensuring no flows enter the pipe and no air, steam or odors will enter the building. When required, the main pipe flows will be by-passed. The pumping system shall be sized for normal to peak flow conditions. The upstream manhole shall be monitored at all times and an emergency deflating system will be incorporated so that the plugs may be removed at any time without requiring confined space entry.

E. The interior of the pipeline shall be carefully inspected to determine the location of any condition that shall prevent proper installation, such as roots, and collapsed or crushed pipe sections. These conditions shall be noted. Experienced personnel trained in locating breaks, obstacles, and service connections by closed circuit television shall perform inspection of pipelines.

F. The existing service lateral shall be clear of obstructions that prevent the proper insertion and expansion of the lining system. Changes in pipe size shall be accommodated, if the lateral tube is sized according to the pipe diameter and condition. Obstructions may include dropped or offset joints of no more than 20% of inside pipe diameter.

G. The liner assembly is encapsulated within the translucent bladder (liner/bladder assembly) shall be saturated with the resin system (wet-out) under controlled vacuum conditions. The volume of resin used shall be sufficient to fill all voids in the textile lining material at nominal thickness and diameter. The volume shall be adjusted by adding 5% to 10% excess resin for the change in resin volume due to polymerization and to allow for any migration of resin into the cracks and joints in the original pipe. No dry or unsaturated area in the mainline sheet or lateral tube shall be acceptable upon visual inspection.

H. The lateral tube and inversion bladder will be inserted into the carrying device. The main bladder and main flat sheet shall be wrapped around a “T” launching device, formed into a tube and secured by use of rubber bands. A seamless molded flange shaped end seal gasket shall be attached to the main liner tube by use of stainless steel snaps. The end seal shall be installed at the main/lateral pipe interface by inserting the gasket tube into the lateral pipe until the brim of the gasket is firmly seated against the mainline pipe. An end seal O-ring for lateral CIPP shall be installed 6-inches from the upstream terminating end of the lateral tube. The launching device is inserted into the pipe and pulled to the point of repair. The pull is complete when the lateral tube is aligned with the lateral pipe. The lateral tube is completely protected during the pull. The mainline liner is supported on a rigid “T” launcher that is elevated above the pipe invert through the use of a rotating skid system. The liner assembly shall not be contaminated or diluted by exposure to dirt or debris during the pull.
I. The main bladder shall be inflated causing the main sheet to unwrap and expand; pressing the main tube firmly into contact with the main pipe and embedding the flange shaped gasket between the main tube and the main pipe at the lateral opening. The lateral tube is inverted through the main tube aperture by the action of the lateral bladder extending into the lateral pipe to a termination point that shall be no less than 2-feet from the exterior cleanout. The bladder assembly shall extend beyond each end of the liner, so the liner remains open-ended and no cutting shall be required.

J. After the liner has been fully deployed into the lateral pipe, pressure is maintained pressing the liner firmly against the inner pipe wall until the liner is cured at ambient temperatures or by a suitable heat source. The heating equipment shall be capable of delivering a mixture of steam and air throughout the liner bladder assembly to a uniform raise the temperature above the temperature required to cure the resin. The curing of the CIPP must take into account the existing pipe material, the resin system, and ground conditions (temperature, moisture level, and thermal conductivity of the soil). The heat source temperatures shall be monitored and logged during the cure and cool down cycles. The manufacturer’s recommended cure schedule shall be submitted.

K. Curing shall be done without pressure interruption with air or a mixture of air and steam for the proper duration of time per the resin manufacturer’s recommendations. The curing process is complete when the temperature of the CIPP reaches 100 degrees Fahrenheit or less, the processing shall be finished.

L. The finished CIPP shall be a homogenous liner assembly located within a lateral service pipe for a specific length, and extending into the main pipe to renew 18-inches of the main pipe including the service connection). The CIPP shall be smooth with minimal wrinkling. The CIPP shall be free of dry spots, lifts, and delaminated portions. The CIPP shall include an engineered taper at each end providing a smooth transition to the host pipe for accommodating video equipment and maintaining proper flow in the mainline. After the work is completed, the installer will provide the owner with video footage documenting the repair and the visual markings identifying the sewer lateral address as completed work. The finished product must provide an airtight / watertight verifiable non-leaking connection between the main sewer and sewer service lateral.

3.12 SANITARY SEWER SERVICE, INSPECTION, CCTV
A. Equipment shall be able to be launched through a manhole and travel along the sewer main to the sanitary laterals.
B. Inspect all sanitary sewer services from the main / lateral connection to 50 linear feet up the lateral or as far as the equipment can safely maneuver.
C. Contractor shall verify each lateral connection from the main to the corresponding property, either using dye testing, sonde locating device or similar equipment.
D. The contractor shall be responsible for notifying the residents 24 hours in advance of performing the work.
E. Provide a binder with copies of the video inspections and the PDF print outs for each lateral inspected.
F. Videos shall include on-screen continuous footage counter, pipe diameter, direction of camera movement, manhole and street location references in the recording.

3.13 RESIN-IMPREGNATED (CIPP) LATERAL SERVICE, INTERFACE SEAL:
Refer to Section 4050 3.11 for Installation Information.

End of Section 4050 – PIPE REHABILITATION
DIVISION 5 - WATER MAIN AND APPURTEANCES

The performance of the work, material requirements and standard details will be governed by the City of Dubuque Water Distribution Specifications dated September 12, 2011.

Bedding and backfill materials shall follow division 3 of Statewide Urban Design Specifications, and applicable supplemental specifications.

The basis of measurement and the basis of payment will be governed by Iowa Statewide Urban Design Specifications; and applicable supplemental specifications, developmental specifications, and special provisions.
Section 5010 – PIPE AND FITTINGS

PART 1 - GENERAL

1.03 SUBMITTALS
Delete Article 1.03 reference to Division 1 and Replace with the following.

All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction.

1.08 MEASUREMENT AND PAYMENT
Delete Article 1.08 A.1.a and replace with new A.1.a
Delete Article 1.08 A.1.c and replace with new A.1.c
Delete Article 1.08 B.1.c and replace with new B.1.c
Delete Article 1.08 C.1.c and 2.c and replace with new C.1.c and 2.c
Article 1.08 D Not Allowed
Add new E.2.b, E.2.c and E.3.c
Add new F
Add new G

A.1.a Measurement: Each type and size of pipe installed in an open trench will be measured in linear feet along the centerline of the pipe. Fittings and valves will be measured separately.

A.1.c. Includes: Unit price includes, but is not limited to, trench excavation, dewatering, placing bedding and backfill material, tracer system, testing, disinfection, and polyethylene wrap for ductile iron pipe.

B.1.c. Includes: Unit price includes, but is not limited to, furnishing and installing carrier and casing pipe, trench excavation, dewatering, placing bedding and backfill material, casing spacers, if specified placing and installing annual spacing fill material, tracer system, testing, and disinfection.

C.1.c Includes: Unit price includes, but is not limited to complete installation of the fitting. Joint restraint will be paid for separately.

C.2.c Includes: Unit price includes, but is not limited to complete installation of the fitting. Joint restraint will be paid for separately.

E.2.b Payment: Payment will be made at the unit price per linear foot of each type and size of water service pipe and corporation (installation by the City of Dubuque Water Department)

E.2.c Includes: Unit price includes, but is not limited to; excavation, hand excavation, equipment, materials, placing bedding and backfill, permits and City of Dubuque Water Department tap fees.

E.3.c Includes: Unit price includes, but is not limited to; excavation, hand excavation, equipment, materials, placing bedding and backfill, couplings, new valve, valve box, connecting to the new / existing service pipe.
F. Water Service Curb Stop Box Extension:
   1. Measurement: Each Water Service Curb Stop Box Extension installed will be counted.
   2. Payment: Payment will be made at the unit price for each Curb Stop box extension installed.
   3. Includes: Unit price includes, but is not limited to, excavation, hand excavation, equipment, materials, placing bedding and backfill, installing new curb stop box extension.

G. Removal and Salvage – Water Main Fittings and Appurtenances:
   1. Measurement: No measurement will be made of individual salvaged materials
   2. Payment: Payment will be lump sum price
   3. Includes: Unit price includes, but is not limited to, excavation, hand excavation, equipment, materials, placing backfill, removal of identified appurtenances, and delivering to the water department.

End of Section 5010 – PIPE AND FITTINGS
Section 5020 – VALVES, FIRE HYDRANTS, AND APPUR TenANCES

PART 1 - GENERAL

1.03 SUBMITTALS
Delete Article 1.03 reference to Division 1 and Replace with the following.

All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction.

1.08 MEASUREMENT AND PAYMENT
Delete B in its entirety and replace with new B
Delete C.3 and replace with new C.3

B. Jurisdiction to complete tap. Contact jurisdiction for tapping fee.

C.3. Includes: Unit price includes, but is not limited to, the fire hydrant, barrel extensions sufficient to achieve proper bury depth of anchoring pipe and height of fire hydrant above finished grade, and components to connect the fire hydrant to the water main, including anchoring pipe, fittings, thrust blocks, fire hydrant gate valve and appurtenances. All backfill will be paid for separately.

End of Section 5020 – VALVES, FIRE HYDRANTS, AND APPUR TENANCES
Section 5030 – TESTING AND DISINFECTION

See City of Dubuque Water Distribution Specifications dated September 12, 2011.

End of Section 5030 – TESTING AND DISINFECTION
Section 6010 – STRUCTURES FOR SANITARY AND STORM SEWER

PART 1 - GENERAL

1.03 SUBMITTALS
Delete Article 1.03 reference to Division 1 and Replace with the following.

All materials to be incorporated into the work must have certifications furnished which show that
the materials comply with the Specifications prior to any construction.

1.08 MEASUREMENT AND PAYMENT
Delete A and replace with new A
Delete B and replace with new B
Delete C.3 and replace with new C.3
Delete D.
Delete F.1 and F.3 replace with new F.1 and F.3
Delete G.3 and replace with new G.3
Add new I, J, and K

A. Manhole:
1. Measurement: Each size and type of manhole will be measured in vertical feet from the
   flow line to top of casting.
2. Payment: Payment will at the Unit price per vertical foot for each size and type of
   manhole.
3. Includes: Unit price includes, but is not limited to, excavation, placing bedding and
   backfill material, compaction, base, structural concrete reinforcement steel, pre-cast units
   (if used), inverts, pipe connections at the manhole and to any existing sewers, infiltration
   barriers (sanitary sewer manholes only), castings, and adjustment rings.

B. Intake:
1. Measurement: Each size and type of intake will be measured in vertical feet from the
   flow line to the flow line of gutter.
2. Payment: Payment will at the Unit price per vertical foot for each size and type of intake.
3. Includes: Unit price includes, but is not limited to, excavation, placing bedding and
   backfill material, compaction, base, structural concrete reinforcement steel, pre-cast units
   (if used), inverts, pipe connections at the intake and to any existing sewers, castings, and
   adjustment rings.

C. Drop Connection:
3. Includes: Unit price includes, but is not limited to, the connection to the manhole and all
   pipe, fittings, concrete encasement, and placing of bedding and backfill material.

Delete D. Casting Extension Rings:

F. Manhole or Intake Adjustment, Major:
1. Measurement: Each existing manhole or intake adjusted to grade by addition or removal
   of riser, cone or flat top sections, or the exchange of existing riser sections with sections
   having different vertical dimensions or modification of cast in place structures will be
   counted.

3. Includes: Unit price includes, but is not limited to, removal of existing casting, adjustment
   rings, top sections, risers, sawing and removal of cast-in-place concrete; excavation,
   concrete reinforcing steel, precast sections, installing new casting; installing new
   infiltration barrier (sanitary sewer manhole only), new cast in place concrete, placing
   backfill material, and compaction.
G. **Connection to Existing Manhole or Intake:**
3. **Includes:** Unit price includes, but is not limited to, coring or cutting into the existing manhole or intake, flexible pipe connectors, flexible sealant, and water stop (when required). All connections to sanitary sewer manholes must be core drilled to accommodate proper size flexible pipe connector.

Add new I, J, and K

I. **Sanitary Sewer Lift Station:**
1. **Measurement:** Each Lift station will be counted.
2. **Payment:** Payment will be made at the bid lump sum price.
3. **Includes:** Lump sum price includes, but is not limited to the complete construction of the lift station according to the plans and details, electrical service to the lift station, permits.

J. **Manhole Remove and Replace:**
1. **Measurement:** Each size and type of manhole being installed will be measured in vertical feet from the flow line to top of casting.
2. **Payment:** Payment will at the Unit price per vertical foot for each size and type of manhole being installed.
3. **Includes:** Unit price includes, but is not limited to, complete removal of existing structure and replacement with new structure of type and size specified, excavation, placing bedding and backfill material, compaction, base, structural concrete reinforcement steel, pre-cast units (if used), inverts, pipe connections at the manhole and to any existing sewers, infiltration barriers (sanitary sewer manholes only), castings, and adjustment rings.

K. **Intake Remove and Replace:**
1. **Measurement:** Each size and type of intake being installed will be measured in vertical feet from the flow line to gutter line.
2. **Payment:** Payment will at the Unit price per vertical foot for each size and type of intake being installed.
3. **Includes:** Unit price includes, but is not limited to, complete removal of existing structure and replacement with new structure of type and size specified, excavation, placing bedding and backfill material, compaction, base, structural concrete reinforcement steel, pre-cast units (if used), inverts, pipe connections at the manhole and to any existing sewers, castings, and adjustment rings.

**PART 2 - PRODUCTS**

2.01 **MANHOLE AND INTAKE TYPES**

Table 6010.01: Manhole and Intake Types

**Allowable**

**Sanitary Sewer Manholes:**
- Figure 6010.301, SW-301
- Figure 6010.303, SW-303
- Figure 6010.304, SW-304

**Storm Sewer Manholes:**
- Figure 6010.401, SW-401 - 48" diameter manholes shall use a cone section

**Storm Sewer Intakes:**
- Figure 6010.501, SW-501
  1. Cast-In-Place Only
  2. Short wall dimension - 2'-6"
  3. Wall Thickness - 0'-8"
4. Casting - Neenah R-3246-AL, with enviro notice cast into curb ‘DUMP NO WASTE DRAINS TO FRESH WATER’

Figure 6010.504, SW-503
1. Cast-In-Place Only
2. Grate opening dimension - 2'-6"x3'-0"
3. Long Wall Dimension - Varies, See Plan
4. Wall Thickness - 0'-8"
5. Intake Casting - Neenah R-3246-AL, with enviro notice cast into curb ‘DUMP NO WASTE DRAINS TO FRESH WATER’
6. Manhole Opening – Eliminate

Figure 6010.505, SW-505
1. Cast-In-Place Only
2. No center beam
3. Short wall dimension - 2'-6"
4. Double intake long wall dimension - 6'-1"
5. Triple intake long wall dimension - 9'-2"
6. Wall Thickness - 0'-8"
7. Casting - Neenah R-3246-AL, with enviro notice cast into curb ‘DUMP NO WASTE DRAINS TO FRESH WATER’
   a. Frame left flange removed: R-3246-0043
   b. Frame right flange removed: R-3246-0044
   c. Frame left and right flange removed: R-3246-0045

Figure 6010.505, SW-505
1. Cast-In-Place Only
2. No center beam
3. Box behind intake to be the full length of the intake
4. Short wall dimension -Varies, See Plan
5. Double intake long wall dimension - 6'-1"
6. Triple intake long wall dimension - 9'-2"
7. Wall Thickness - 0'-8"
8. Casting - Neenah R-3246-AL, with enviro notice cast into curb ‘DUMP NO WASTE DRAINS TO FRESH WATER’
   a. Frame left flange removed: R-3246-0043
   b. Frame right flange removed: R-3246-0044
   b. Frame left and right flange removed: R-3246-0045

Figure 6010.511, SW-511
1. Cast-In-Place Only
2. Inside wall dimension - 3'-0"x3'-0"
3. Wall Thickness - 0'-8"

Figure 6010.512, SW-512 (pipe < 30" Diameter)
Figure 6010.513, SW-513 (pipe > 30" Diameter)
1. Cast-In-Place Only
2. Wall Thickness - 0'-8"
3. Casting - Neenah R-1642 A

2.05 PRECAST RISER JOINTS
Delete B.2. from Article 2.05.
2.07 BASE
Delete A.2 from Article 2.07.
Add new C.1 to Article 2.07.

C.1 Precast intakes allowed for new construction only, subject to Jurisdictional approval.

2.08 PIPE CONNECTIONS
Delete A and replace with new A.

A. Flexible, Watertight Gasket: Comply with ASTM C923. Approved manufacturer A-Lok Industries and Press-Seal PSX Direct Drive Manhole connector or equal.

2.09 MANHOLE OR INTAKE ADJUSTMENT RINGS (GRADE RINGS)
Delete A.1 in its entirety.
Delete A.2 and replace with new A.2

A.2 High Density Polyethylene Adjustment Rings: comply with ASTM D4976.

2.10 CASTINGS
Delete B in its entirety and replace with new B and B. 1.
Delete C.1 and C.2 and replace with new C.1 and C.2.
Add new C.2.c and C.2.d

B. Load Capacity: Heavy Duty unless otherwise shown on the casting figures.
    1. Heavy Duty: Casting certified for 40,000 pound proof load according to AASHTO M306.

C. Casting Types:
    1. Manholes:
        a. Sanitary Sewer manhole
           1. Neenah R-1642-A (Paved Areas)
           2. Neenah R-1916-F - Bolted frame and cover (Non-Paved Areas)
        b. Storm Sewer manhole
           1. Neenah R-1642-A (Paved Areas)
           2. Neenah R-1916-F - Bolted frame and cover (Non-Paved Areas)
    2. Intakes:
        b. Castings must include environmental symbols and message “DUMP NO WASTE, DRAINS TO FRESH WATER”

Add new c and d
    c. Storm Intakes Neenah R-3246-A (Curb inlet)
    d. Storm Intakes Neenah R-1878-A (Area drain)

2.11 ADDITIONAL MATERIALS FOR SANITARY SEWER MANHOLES
Delete B.1 and replace with new B.1

B.1 When exterior waterproof coating is specified, provide bituminous or water based acrylic coating.

PART 3 - EXECUTION

3.05 CONNECTION TO EXISTING MANHOLE OR INTAKE
Add new A.4

A.4 All connections to sanitary sewer manholes shall be completed using a flexible connector. No concrete collars shall be used.
End of Section 6010 – STRUCTURES FOR SANITARY AND STORM SEWER
Section 6020 – REHABILITATION OF EXISTING MANHOLES

PART 1 - GENERAL

Renumbered C THRU F

1.03 SUBMITTALS

Delete Article 1.03 reference to Division 1 and Replace with the following.

All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction

C. Provide, as a minimum, the following information for evaluation

1. Emergency plan detailing procedures to be followed in event of pump failures, sewer overflows, service backups, and sewage spillage. Maintain a copy of emergency plan on site for duration of project

2. A letter from a certified public accountant stating that the manufacturer is financially sound by generally accepted accounting principles

D. Product Information:

1. Product name

2. Year product first available in the United States.

3. Total vertical footage or number of manholes lined in the United States.

4. Results of all available product testing, including but not limited to leakage, physical properties, chemical resistance, strain-corrosion, external loading, flow characteristics, infiltration/inflow reductions, structural capacity, and external hydrostatic loading capacity

5. Samples of before and after product if requested.


7. Typical lining thickness for manhole sizes included in the project.

E. Manufacturer Information:

1. Manufacturer name.

2. Years of experience manufacturing the product.

3. Country of manufacture of all product components.

4. Quality control procedures for product manufacture, including inspection requirements, testing procedures, and allowable tolerance levels.

5. Related ASTM standards, or other nationally recognized standards for product manufacturing.

F. Installer Information:

1. Installer name.

2. Completed project list for last five years including for each project and year completed, client name/address/contact person/phone number, vertical footages installed.

3. Detailed installation procedures, including estimated times for each task and other items unique to each product.

4. Video of installation process, if requested.

5. Evidence of properly trained personnel.

6. Related ASTM standards or any nationally recognized standards for product installation.

7. Available equipment list.

8. Detailed procedures for repairing the product in the event of future damage or failure, including and required specialized equipment or training.

9. Videos of two rehabilitated manholes showing before and after conditions if requested.

10. Additional information may be required. The submittal of prequalification information in no way implies that the product, manufacturer, or installer will be deemed to be qualified. The Contracting Authority, in its sole discretion, will determine whether a product, manufacturer,
11. The Contractor shall submit to the owner a statement, demonstrating the following:
   A. Must have a minimum of two (2) years of continuous experience installing manhole liners and manhole spray on products of a similar configuration as contained in this contract.
   B. A minimum of 500 vertical feet of manhole rehabilitation is required as applicable to this contract.
   C. The lead personnel including the superintendent, the foreman and the lead crew personnel for the manhole rehabilitation must have a minimum of two (2) years of total experience with the manhole rehabilitation technology proposed for this contract and must have demonstrated competency and experience to perform the scope of work contained in this contract.

12. The name and experience of each lead individual performing work on this contract shall be submitted.

1.04 SUBSTITUTIONS
Not Allowed

1.08 MEASUREMENT AND PAYMENT
A.2 - Not Allowed
A.3 - Not Allowed
B. - Not Allowed
C. - Not Allowed
Delete D.3 and replace with new D.3
Add E
Add F

D.3. - Includes: Unit prices includes, but is not limited to, the handling of sewer flows during lining operations as required to properly complete the installation, existing casting shall be left in place.

E. Manhole Lining With Centrifugally Cast Cementitious Mortar Liner:
1. Measurement:
   The vertical dimension of manhole lining will be measured for depth in feet from the bottom of the lining to the top of the lining for each liner thickness specified.

2. Payment:
   Payment will be at the unit price per vertical foot for each liner thickness.

3. Includes:
   The unit price includes, but is not limited to, the handling of sewer flows during lining operations as required to properly complete the installation, existing casting shall be left in place.

F. Chemical Grouting of Manholes:
1. Chemical Grouting of Sanitary Sewer Manholes
   1. Measurement: Per gallon injected as approved for the discontinuation of leaks.
   2. Payment: Will be made per the unit price Per Gallon Injected.
   3. Include: Unit price includes but is not limited to furnishing all materials, labor, and equipment to complete all work specified. The contractor shall be responsible for sealing all visible leaks and areas with evidence of leaks (deposits or staining) in the listed manholes for this project. The contractor shall verify the condition of the manholes before bidding.
PART 2 - PRODUCTS

2.01 INFILTRATION BARRIER
   B. Not Allowed
   C. Not Allowed

2.02 Not Allowed

2.03 CENTRIFUGALLY CAST CEMENTITIOUS MORTAR LINER WITH EPOXY SEAL
   New A.4,
   New B.3,
   Remove C and replace with new C

   A.4. Cementitious mortar liner shall be installed to meet a 0.5 inch minimum thickness.

   B.3. Two-Part 100% solids epoxy shall be installed to meet a 25 square foot per gallon coverage at 0.065 inch thickness.

   C. - Casting shall be left in place.

New 2.04

2.04 MANHOLE LINING WITH CENTRIFUGALLY CAST CEMENTITIOUS MORTAR LINER
   Refer to Section 6020 2.03 - A for materials. (Section 6020 2.03: B not required)

new 2.05

2.05 CHEMICAL GROUTING OF MANHOLES
   Grout shall be Avanti AV-100 or equal.

PART 3 - EXECUTION

Delete 3.03 B.2 replace with new B.2
Delete 3.03.D replace with new D
New 3.03 E
New 3.05
New 3.06

3.01 B. - Not Allowed
   C. - Not Allowed

3.02 Not Allowed

3.03 B. Mortar Application
   2. Retrieve the applicator head at the manufacturer’s recommended speed to achieve the desired thickness. Thickness shall be a minimum of 1/2”.

   D. Casting shall be left in place.

   E. Repair/Replacement of Defects.
   1. The Contractor shall outline specific repair or replacement procedures for potential defects in the installed cementitious mortar liner with epoxy seal. Repair/replacement procedures shall be as recommended by the liner/sealer system manufacturer and shall be submitted to the Owner at the Pre-Construction Meeting.

   a. Repairable defects in the installed cementitious mortar liner with epoxy seal shall be specifically defined by the Contractor based on manufacturer’s recommendations, including a detailed step-by-step repair procedure, resulting in a finished product meeting the requirements of SUDAS.
DIVISION 6 - STRUCTURES FOR SANITARY AND STORM SEWERS
Section 6020 – REHABILITATION OF EXISTING MANHOLES

a. Un-repairable defects to the cementitious mortar liner with epoxy seal shall be clearly defined by the Contractor based on the manufacturer’s recommendations, including a recommended procedure for the removal and replacement.

2. Defects in the installed cementitious mortar liner with epoxy seal that will not affect the operation and long term life of the product shall be identified and defined. The Owner reserves the right to request an independent evaluation of a defective cementitious mortar liner with epoxy seal identified and defined by the Contractor to not affect the operation and long term life of the product. In the event, the Owner/Owner’s representative determines the defect does not result in a finished product meeting the requirements of SUDAS, the Contractor shall follow SUDAS Division 6, Section 6020 – Rehabilitation of Existing Manholes, Part 3 – Execution, 3.03 Centrifugally Cast Cementitious Mortar Liner with Epoxy Seal E (1).

New 3.05
3.05 MANHOLE LINING WITH CENTRIFUGALLY CAST CEMENTITIOUS MORTAR LINER:
Refer to Section 6020 3.02 - A & B for installation

Delete 3.06 and replace with new 3.06
3.06 CHEMICAL GROUTING OF MANHOLES
Contractor shall install Chemical Grout per the manufacturer’s instructions. If grout sealing is determined by the Contractor to be necessary, the Contractor shall notify the Owner for approval, prior to installation.

End of Section 6020 – REHABILITATION OF EXISTING MANHOLES
DIVISION 7 - STREETS AND RELATED WORK
Section 7010 – PORTLAND CEMENT CONCRETE PAVING

PART 1 - GENERAL

1.03 SUBMITTALS
Delete Article 1.03 A in its entirety and Replace with the new A.

A. All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction.

PART 2 - PRODUCTS

2.01 MATERIALS
Delete Article 2.01 K.3 in its entirety.

K. Joint Fillers and Sealants:
3. Delete Article 2.01 K.3 in its entirety.

PART 3 - EXECUTION

3.02 PAVEMENT CONSTRUCTION
Add New J.1.f to Article 3.02
Add New N to Article 3.02

J. Construction of Joints:
f. All joints shall be saw cut.

N. End of Run:
Whenever 30 minutes or more have elapsed since the last concrete has been finished or if such a delay is anticipated an approved header shall be installed. It shall be shaped to fit the cross section of the pavement and so placed that the upper edge will conform to the crown of the pavement and shall be installed on the stone base perpendicular to the surface and at a right angle to the centerline of the pavement.

3.08 QUALITY CONTROL
Delete D.4 (except a. and b.) replace with new D.4 (except a. and b.)

D. Pavement Thickness:
D.4 If the thickness index deficiency is greater than 0.51 for pavements thinner than 7 inches or 0.91 for pavement 7 inches or thicker, the Engineer will study the extent and severity of the deficiency of the pavement areas. The Engineer will require one of the following based on a review of the level of deficiency, the amount of the payment penalty, and the estimated reduction in the design life of the deficient pavement:

D. Table 7010.05
Delete title replace with new title: Pay Factor for PCC Pavement for Design Thickness less than 7"

D. Table 7010.06
Delete title replace with new title: Pay Factor for PCC Pavement for Design Thickness 7” or Greater

FIGURES
Figure 7010.102 PCC CURB DETAILS. 4” and 6” Sloped Curb Details only allowed with City of Dubuque approval. Primarily used on roundabouts.

End of Section 7010 – PORTLAND CEMENT CONCRETE PAVING
Section 7020 – HOT MIX ASPHALT PAVEMENT

PART 1 - GENERAL

1.03 SUBMITTALS
Delete Article 1.03 A and F and replace with new A and F

A. All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction.

F. Weight tickets must include mix size and type or correlate to the bid item, and must be signed by the Certified Aggregate Technician.

ADD NEW Article 1.09
1.09 SCALES
Scales shall conform to the Iowa DOT Standard Specifications for Highway and Bridge Construction latest series, Section 2001 Weighing Equipment and Procedures.

End of Section 7020 – HOT MIX ASPHALT PAVEMENT
Section 7030 – SIDEWALKS, SHARED USE PATHS, AND DRIVEWAYS

PART 1 - GENERAL

1.03 SUBMITTALS

Add new 1.03 F

F. All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction.

1.08 MEASUREMENT AND PAYMENT

Delete title of B and replace with new title.
Delete B. 1 and replace with new B.1.
Add City Policy Language to F: Brick Sidewalk
Delete F.1 in its entirety.
Delete F.2.c and replace with new F.2.c.
Delete G.1 and G.3 and replace with new G.1 and G.3. Add New J
Delete H.2 in its entirety

B. Removal of Curb:
B. Removal of Curb and Curb Head

1. Measurement: Measurement will be in linear feet for removal of curb and curb head by sawing. Grinding of the curb and curb head by Jurisdictional approval.

F. Brick Sidewalk: City Policy pertaining to the installation and location of Brick Sidewalk was adopted on October 15, 2007 by City Council. The policy prohibits the installation of brick sidewalks in the traveled portion of the right-of-way, which shall be a minimum of four feet in width.

2. c. Includes: Unit price includes, but is not limited to, subgrade preparation including ½’ leveling base of sand meeting dry sand-cement mixture complying ASTM C-91 and ASTM C144 passing No. 16 sieve.

G. Detectable Warnings:

1. Measurement:

Measurement: Measurement will be in square feet of detectable warnings installed.

3. Includes:

Unit price includes, but is not limited to, detectable warnings, installation, sawing of the detectable warning panels to fit the shape as detailed on the plans or as directed by the Engineer.

J. ADA/PROWAG Compliance:

1. The Contractor shall be responsible for the final grade and installation of sidewalks, shared use paths, and driveway in compliance with the ADA/PROWAG Regulations.

H. Driveways

2. Not allowed.

PART 2 - PRODUCTS

Delete 2.08 in its entirety.

2.01 PORTLAND CEMENT CONCRETE
Delete Article 2.01 A. and replace with new A.

A. Class C concrete with materials complying with Section 7010. Use coarse aggregate of Class 2 durability or better.

2.02 HOT MIX ASPHALT
Delete Article 2.02 A. and replace with new A.

A. Use 300,000 ESAL \( \frac{1}{2} \)" mix on pavement 1-1/2" thickness and 3/8" on pavement 1" thickness, or as directed by Engineer.

2.08 GRANULAR DRIVEWAY SURFACING
Not Allowed.

PART 3 - EXECUTION

3.04 PCC SIDEWALKS, SHARED USE PATHS, AND DRIVEWAYS
Delete C.1 in its entirety and replace with new C.1.
Add new C.3
Delete F.2 (b) (3) in its entirety and replace with new F.2 (b) (3)
Delete F.3 (b) (2) in its entirety and replace with new F.3 (b) (2)
Delete F.4 (c ) in its entirely and replace with new F. 4 (c )
Delete F.5. in its entirety and replace with the new F.5.

C. Finishing:

1. Shared Use Paths:
   a. Comply with Section 7010.
   b. Provide a burlap drag or broom finish

New C. 3

3. Driveways:
   a. Comply with Section 7010.
   b. Provide a broom finish

F. Jointing:

2. (b) (3) Form transverse contraction joints to a depth 25% pavement thickness. The joint may be formed using a pointed trowel or jointing tool, not exceeding ½ inch in width. In lieu of forming, joints may be sawed within 12 hours of placement with a 1/8 inch blade saw. Use a straightedge if joints are sawed with a hand-held saw.

3. (b) (2) Form longitudinal contraction joints to a depth 25% pavement thickness. The joint may be formed using a pointed trowel or jointing tool, not exceeding ½ inch in width. In lieu of forming, joints may be sawed within 12 hours of placement with a 1/8 inch blade saw. Use a straightedge if joints are sawed with a hand-held saw.

4. (c ) Install a ½ inch thick strip of preformed resilient joint material, according to Section 7010 (IA DOT 4136.03 (A) & (B)), to the full depth of concrete. Trim any isolation join material protruding above the finish work to the level of the abutting concrete.

5. Joint Sealing: Do not seal construction of contraction joints in sidewalks, shared use paths or driveways, except along buildings.

3.06 BRICK SIDEWALKS
Delete Article 3.06 A in its entirety and add new B.1.e.

i. Brick Sidewalks with a Concrete Base:

1. General:
e. A leveling base of Brick Joint Filler Sand may be used prior to installation of the concrete base.

3.09 GRANULAR DRIVEWAY SURFACING

Not Allowed.
FIGURES

Figure 7030.101 CONCRETE DRIVEWAY, TYPE A Delete Note 3 and Replace with new Note 3.

Figure 7030.102 CONCRETE DRIVEWAY, TYPE B Delete Note 3 and 5 and Replace with new Note 3 and 5.
5. Box out shall extend to the first longitudinal panel joint. Full depth saw cut is still required.

Figure 7030.202 CURB DETAILS FOR CLASS A SIDEWALK Delete Detail 1 and Detail 2 in their entirety.
Detail 3 Jurisdictional Approval only.

Figure 7030.203 CURB DETAILS FOR CLASS A SIDEWALK Delete detail showing Brick Sidewalk with Sand Base

Figure 7030.205 GENERAL SIDEWALK AND CURB RAMP DETAILS Delete Note 3 and replace with new Note 3
3. Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%; minimum 5 feet by 5 feet.

Figure 7030.206 CURB RAMPS OUTSIDE OF INTERSECTION RADIUS Delete Note 3 and replace with new Note 3
3. Turning space: Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%. At mid-block crossing, cross slope of landing may exceed 2.0% to match roadway grade; minimum 5 feet by 5 feet.

Figure 7030.207 CURB RAMP FOR CLASS B OR C SIDEWALK Delete Note 2 and replace with new Note 2
2. Turning space: Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%; minimum 5 feet by 5 feet.

Figure 7030.208 ALTERNATIVE CURB RAMP FOR CLASS B OR C SIDEWALK Delete Note 2 and replace with new Note 2
2. Turning space: Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%; minimum 5 feet by 5 feet.

Figure 7030.209 CURB RAMPS FOR CLASS A SIDEWALK
Delete Note 1 and replace with new Note 1
1. Turning space: Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%; minimum 5 feet by 5 feet (turning spaces may overlap).

End of Section 7030 – SIDEWALKS, SHARED USE PATHS, AND DRIVEWAYS
Section 7040 – PAVEMENT REHABILITATION

PART 1 - GENERAL

1.03 SUBMITTALS Add new C.
C. All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction.

1.08 MEASUREMENT AND PAYMENT
Add new L

G. Milling:
3. Includes: Unit price includes, but is not limited to, milling pavement; furnishing water; cutting or clipping of reinforcement; and salvaging, stockpiling, and removing cuttings and debris.

K. Historic Brick Paver Removal and Salvage:
1. Measurement: Will be in square yards of pavers removed
2. Payment: Payment will be at the bid unit price for each square yard of pavers removed.
3. Includes:
   a. Removal of brick pavers
   b. Cleaning each paver of loose soils and debris
   c. Palletizing pavers on contractor supplied pallets and wrapping the palletized pavers with shrink wrap.
   d. Loading, trucking, unloading palletized pavers to the storage area at the Dubuque Metro Landfill.

L. Curb and Gutter, Remove and Replace
1. Measurement: Measurement will be in linear feet measured along the face of the curb for each different width and thickness of curb and gutter.
2. Payment: Payment will be at the unit per linear foot of curb and gutter removed and replaced.
3. Includes: Unit price includes, but not limited to, sawing, breaking, removing, and disposing of existing curb and gutter; and final subgrade/sub-base preparation, furnishing and installing base material, bars and reinforcement, joints and sealing, surface curing and pavement protection, and box outs for fixtures.

PART 3 - EXECUTION

3.03 PARTIAL DEPTH PATCHING
Delete A.2 in its entirety and replace with new A.2.

A. Pavement Removal:
2. Saw cut to a depth as specified in the contract documents or in the absence of a defined depth, to a depth where a material change occurs. Saw cut shall extend to the removal limits.

3.05 MILLING
Delete Article 3.05 - H in its entirety and replace with new H.

H. Do not leave a vertical drop of more than 2 inches at the centerline or lane line overnight. Taper the ends of milled sections subject to traffic to provide a uniform and gradual transition. Tapers shall be placed at pedestrian crossing locations and along the pavement edge.

3.09 CURB AND GUTTER REMOVAL
Delete Article 3.09 in its entirety and replace with new 3.09.
A. Saw longitudinally 2 feet from the existing gutter joint or location directed by the Jurisdiction. Saw transversely at the curb and gutter removal limits.

B. Remove existing curb and gutter without damaging the remaining pavement.

End of Section 7040 – PAVEMENT REHABILITATION
Section 7080 – PERMEABLE CONCRETE BLOCK PAVERS

REPLACE SECTION 7080 – PERMEABLE CONCRETE BLOCK PAVERS WITH BELOW IN ENTIRETY.

PART 1 - GENERAL

1.01 SECTION INCLUDES:
Permeable interlocking concrete pavers

1.02 DESCRIPTION OF WORK:
Install Permeable interlocking concrete pavers

1.03 SUBMITTALS

A. Permeable concrete pavers:
1. Manufacturer's product catalog sheets with specifications.
2. [Four] representative full-size samples of each paver type, thickness, color, and finish. Submit samples indicating the range of color expected in the finished installation.
3. Accepted samples become the standard of acceptance for the work of this Section.
4. Laboratory test reports certifying compliance of the concrete pavers with ASTM C 936.
5. Manufacturer's material safety data sheets for the safe handling of the specified materials and products.
6. Manufacturer's written quality control procedures including representative samples of production record keeping that ensure conformance of paving products to the project specifications.

B. Paver Installation Subcontractor:
1. A copy of Subcontractor's current certificate from the Interlocking Concrete Pavement Institute Concrete Paver Installer Certification program.
a. Paver Installation Subcontractor Qualifications:
1. Utilize an installer having successfully completed concrete paver installation similar in design, material and extent indicated on this project.
2. Job references from projects of a similar size and complexity. Provide Owner/Client/General Contractor names, postal address, phone, fax, and email address.
3. Written Method Statement and Quality Control Plan that describes material staging and flow, paving direction and installation procedures, including representative reporting forms that ensure conformance to the project specifications.

C. Mock-Ups:
1. Install a 5 ft x 5 ft (1.5 x 1.5 m) paver area.
2. Use this area to determine surcharge of the bedding layer, joint sizes, lines, laying pattern(s), color(s) and texture of the job.
3. This area will be used as the standard by which the work will be judged.
4. Subject to acceptance by owner, mock-up may be retained as part of finished work.
5. If mock-up is not retained, remove and properly dispose of mock-up.

1.04 SUBSTITUTIONS:
Comply with Division 1 - General Provisions and Covenants

1.05 DELIVERY, STORAGE, AND HANDLING:

A. General: Comply with Division 1 General Provision and Covenants.

B. Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.

C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged container packaging with identification tags intact on each paver bundle.
1. Coordinate delivery and paving schedule to minimize interference with normal use of buildings adjacent to paving.
2. Deliver concrete pavers to the site in steel banded, plastic banded, or plastic wrapped cubes capable of transfer by forklift or clamp lift.
3. Unload pavers at job site in such a manner that no damage occurs to the product or existing construction.

D. Storage and Protection: Store materials in protected area such that they are kept free from mud, dirt, and other foreign materials.

1.06 SCHEDULING AND CONFLICTS: Comply with Division 1 - General Provisions and Covenants

1.07 SPECIAL REQUIREMENTS:
A. Do not install in rain or snow.
B. Do not install frozen bedding materials.

1.08 MEASUREMENT AND PAYMENT

A. Permeable interlocking concrete pavers:
   1. Measurement: Measurement will be in square feet of pavers installed.
   2. Payment: Payment will be at the bid unit price for each square foot of pavers installed.
   3. Includes: Unit price includes, but is not limited to, subgrade preparation, furnishing and placing bedding and void aggregate, Permeable interlocking concrete pavers.

B. Brick Pavers with Concrete Base:
   1. Measurement: Measurement will be in square feet of pavers installed.
   2. Payment: Payment will be at the bid unit price for each square foot of pavers installed.
   3. Includes: Unit price includes, but is not limited to, subgrade preparation, Concrete Base, Reinforcing, furnishing and placing bedding aggregate, brick pavers.

C. Waterproofing, Surface Leveling:
   1. Measurement: Measurement will be in square feet of leveling product applied to the surface.
   2. Payment: Payment will be at the bid unit price for each square foot of leveling product applied to the surface.
   3. Includes: Unit price includes, but is not limited to, cleaning and preparing the surface in accordance with manufacturer’s instructions, installation of the leveling product.

D. Waterproofing, Sealer:
   1. Measurement: Measurement will be in square feet of sealing product applied to the surface.
   2. Payment: Payment will be at the bid unit price for each square foot of sealing product applied to the surface.
   3. Includes: Unit price includes, but is not limited to, cleaning and preparing the surface in accordance with manufacturer’s instructions, installation of the leveling product.

E. Geotextile Fabric:
   2. Payment:
Payment will be at the bid unit price for each square yard of fabric installed.

3. **Includes:**
   Unit price includes, but is not limited to, preparing the subgrade surface, installation of the geotextile fabric accordance with manufacturer’s instructions.

**PART 2 - PRODUCTS**

2.01 **PERMEABLE INTERLOCKING CONCRETE PAVERS**
   A. **Manufacturer:** Borgert, County Materials, Unilock and Interlock Concrete Products.
   
   1. **Local Distributor:** Top Block & Brick, East Dubuque, IL, County Materials
   
   B. **Permeable Interlocking Concrete Paver Units:**
      1. **Paver Type:** FiltraPave Paver, H2O Pro Paver, Unilock Eco-Optiloc Paver and Holland Eco Paver.
         a. **Material Standard:** Comply with ASTM C 936.
         b. **Color:** brown or similar. To be approved by City of Dubuque.
         c. **Color Pigment Material Standard:** Comply with ASTM C 979.

2.02 **GEOTEXTILE FABRIC**
   A. **Geotextile Fabric - Use Fabric complying with Iowa DOT Section 4195, requirements for subsurface drainage.**

2.03 **WATERPROOFING SURFACE LEVELING**
   A. **Surface leveling material is to be 2-lb minimum closed cell expanding foam.**

2.04 **WATERPROOFING, SEALER**
   A. **The water proofing sealer shall be ORSLM polyurea waterproofing membrane from Oak Ridge Foam and Coatings or an approved equal.**

**PART 3 - EXECUTION**

3.01 **EXAMINATION OF SITE CONDITIONS**
   A. **Acceptance of Site Verification of Conditions:**
      1. **General Contractor shall inspect, accept and certify in writing to the paver installation subcontractor that site conditions meet specifications for the following items prior to installation of interlocking concrete pavers.**
         a. **Verify that subgrade preparation, compacted density and elevations conform to specified requirements.**
         b. **Provide written density test results for soil subgrade to the Owner, General Contractor and paver installation subcontractor.**
         c. **Verify location, type, and elevations of edge restraints, concrete collars around utility structures, and drainage pipes and inlets.**
      2. **Do not proceed with installation of bedding and interlocking concrete pavers until subgrade soil conditions are corrected by the General Contractor or designated subcontractor.**

3.02 **PREPARATION**
   A. **Verify that the soil subgrade is free from standing water.**
   B. **Stockpile joint/opening filler, base and subbase materials such that they are free from standing water, uniformly graded, free of any organic material or sediment, debris, and ready for Placement.**
   C. **Edge Restraint Preparation:**
      1. **Install edge restraints per the drawings.**
3.03 INSTALLATION

A. General:
1. Any excess thickness of soil applied over the excavated soil subgrade to trap sediment from adjacent construction activities shall be removed before application of the geotextile and subbase materials.
2. Keep area where pavement is to be constructed free from sediment during entire job. Geotextiles Base and bedding materials contaminated with sediment shall be removed and replaced with clean materials.
3. Do not damage drainpipes, overflow pipes, observation wells, or any inlets and other drainage appurtenances during installation. Report any damage immediately to the project engineer.

B. Geotextile Fabric:
1. Place on bottom and sides of the soil subgrade. The fabric on the sides shall extend to the bottom of the proposed pavement or collar. Secure in place to prevent movement.
2. Overlap seam a minimum of twelve inches, in the direction of drainage flow.

C. Storage Aggregate:
1. Place storage aggregate in 6 inch maximum lifts to the thickness specified in the contract documents. If underdrain system is specified, take care not to damage or displace pipe during placement of storage aggregate.
2. Storage Aggregate to be ASTM #2 or as specified by engineer.
3. Compact each lift with a vibratory drum roller until no visible movement can be seen in the aggregate layer. Do not crush aggregate. Do not operate compaction equipment directly over underdrain, until a minimum of 12 inches of storage aggregate is placed over the underdrain.
4. Install storage aggregate to the elevation specified in the contract documents.

D. Filter Aggregate:
1. Place filter aggregate directly over storage aggregate.
2. Filter aggregate to be ASTM #57 or as specified by engineer.
3. Install aggregate in a single lift with a thickness of 4 inches.
4. Lightly compact filter aggregate with one or two passes from a vibratory plate compactor or vibratory roller. If a vibratory roller is utilized, perform the final pass without vibration. Do not crush aggregate.

C. Bedding layer:
1. Moisten, spread and screed the ASTM Gradation # 8 stone bedding material.
2. Fill voids left by removed screed rails with ASTM Gradation # 8 stone.
3. The surface tolerance of the screeded ASTM Gradation # 8 bedding layer shall be ±3/8 in (10 mm) over a 10 ft (3 m) straightedge.
4. Do not subject screeded bedding material to any pedestrian or vehicular traffic before paving unit installation begins.
D. Permeable interlocking concrete pavers and joint/opening fill material:
   1. Lay the pavers [paving slabs] in the pattern(s) and joint widths shown on the drawings. Maintain straight pattern lines.
   2. Fill gaps at the edges of the paved area with cut units. Cut pavers subject to tire traffic shall be no smaller than 1/3 of a whole unit.
   3. Cut pavers and place along the edges with a [double-bladed splitter or] masonry saw.
   4. Fill the openings and joints with ASTM Gradation # 8 stone.
   5. Some paver joint widths may be narrow and not accept most of the ASTM Gradation # 8 stone. Use joint material that will fill joints such as washed ASTM No. 8 or No. 9 stone.
   6. Remove excess aggregate on the surface by sweeping pavers clean.
   7. Compact and seat the pavers into the bedding material using a low-amplitude, 75-90 Hz plate compactor capable of at least 4,000 lbs (18 kN) centrifugal compaction force. This will require at least two passes with the plate compactor.
   8. Do not compact within 6 ft (2 m) of the unrestrained edges of the paving units.
   9. Apply additional aggregate to the openings and joints, filling them completely. Remove excess aggregate by sweeping then compact the pavers. This will require at least two passes with the plate compactor.
  10. All pavers within 6 ft (2 m) of the laying face must be left fully compacted at the completion of each day.
  11. The final surface tolerance of compacted pavers shall not deviate more than ±3/8 (10 mm) under a 10 ft (3 m) long straightedge.
  12. The surface elevation of pavers shall be 1/8 to 1/4 in. (3 to 6 mm) above adjacent drainage inlets, concrete collars or channels.

3.04 FIELD QUALITY CONTROL
   A. After sweeping the surface clean, check final elevations for conformance to the drawings.
   B. Lippage: No greater than 1/8 in. (3 mm) difference in height between adjacent pavers.
   C. The surface elevation of pavers shall be 1/8 to 1/4 in. (3 to 6 mm) above adjacent drainage inlets, concrete collars or channels.
   D. Contractor responsible for furnishing and placing additional ASTM # 8 chips in paver joints if settlement occurs within 1 year of installation of interlocking concrete pavement system.

3.05 PROTECTION
   A. After work in this section is complete, the General Contractor shall be responsible for protecting work from sediment deposition and damage due to subsequent construction activity on the site.

End of Section 7080 – PERMEABLE CONCRETE BLOCK PAVERS
Section 7090 SPECIAL PROVISION – TEMPORARY PAVEMENT

PART 1 - GENERAL

1.01 Section Includes
   A. Temporary Pavement

1.02 Description of Work
   Includes requirements for the construction of a Temporary HMA or PCC Pavement.

1.03 Submittals
   Follow the General Provisions (Requirements) and Covenants.

1.04 Substitution
   Follow the General Provisions (Requirements) and Covenants.

1.05 Delivery, Storage, Handling, and Salvage
   Follow the General Provisions (Requirements) and Covenants.

1.06 Scheduling and Conflicts
   Follow the General Provisions (Requirements) and Covenants.

1.07 Special Requirements
   1. At the direction of City Engineer shall place a minimum depth of 3” of Cold or Hot Mix Asphalt or 4” minimum depth of PC Concrete.
   2. Follow requirements in the City of Dubuque Policy for Excavation in Rights-of-Way

1.08 Measurement and Payment
   1. Measurement:
      a. Measurement will be in square yards of Temporary Pavement for the thickness specified.
   2. Payment:
      a. Payment will be at the unit price per square yard of Temporary Pavement at the thickness specified.
   3. Includes:
      a. Unit price includes, but is not limited to, sawing, subbase preparation, furnishing and placement of temporary pavement, pavement protection and restoring disturbed surfaces.
      Granular Subbase Materials will be paid separately according to Section 2010 I.

PART 2 - PRODUCTS

1.01 Materials
   A. PCC: Comply with Section 7040, 2.01 A.2.
   B. HMA: Comply with Section 7040, 2.01 B.
   C. Cold Mix Asphalt:

PART 3 - EXECUTION

   a. Install cold or hot mix asphalt to a maximum depth of 3” or as specified in the contract documents.
   b. Install PC concrete to a maximum depth of 4” or as specified in the contract documents.
   c. Prior to installation of Temporary Pavement the contractor shall prepare subgrade / subbase in preparation for Temporary Pavement.
   d. Sawcut existing pavement to provide a uniform edge.
   e. Protect temporary PCC Pavement against freezing for a minimum of 24 hours.

End of Section 7090 SPECIAL PROVISION – TEMPORARY PAVEMENT
Section 7100 – Guardrail Construction and Removal

PART 1 - GENERAL
Follow Iowa Department of Transportation Specification Section 2505

1.01 DESCRIPTION OF WORK:
Follow Iowa Department of Transportation Specification Section 2505.01

1.02 MATERIALS
Follow Iowa Department of Transportation Specification Section 2505.02

1.03 CONSTRUCTION AND REMOVAL
Follow Iowa Department of Transportation Specification Section 2505.03

1.04 METHOD OF MEASUREMENT
Follow Iowa Department of Transportation Specification Section 2505.04

1.05 BASIS OF PAYMENT
Follow Iowa Department of Transportation Specification Section 2505.05

End of Section 7100 – Guardrail Construction and Removal
DIVISION 8 – TRAFFIC

The performance of the work, material requirements and standard details under Division 8- Traffic shall be under separate Supplemental Specifications provided the City of Dubuque’s Engineering Department.

The basis of measurement and the basis of payment will be governed by Iowa Statewide Urban Design Specifications; and applicable supplemental specifications, developmental specifications, and special provisions.
Section 8010 – EQUIPMENT, LIGHTING, AND SIGNALS

PART 1 - GENERAL

1.03 SUBMITTALS
Add to Article 1.03 new E

E. All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction.

1.08 MEASUREMENT AND PAYMENT
Delete 1.08 in its entirety and replace with new A through N.4.c

Traffic Signal and Temporary Traffic Signal (A & B) have been moved to "K" and "L"

A. Conduit:
   1. Handhole - Precast Concrete:
      a. Measurement:
         Each handhole will be counted.
      b. Payment:
         Payment will be at the bid unit price for each handhole installed Bedding and backfill will be paid separately, at the bid unit price.
      c. Includes:
         Unit Price Includes, but is not limited to, excavation, placing bedding and backfill material, precast handhole unit, installation, casting, core drilled and sealed conduit connections, ground rod.

   2. Handhole - Composite:
      a. Measurement:
         Each handhole will be counted.
      b. Payment:
         Payment will be at the bid unit price for each handhole installed.
      c. Includes:
         Unit Price Includes, but is not limited to, excavation, placing bedding and backfill material, fiber cement handhole unit, core drilled and sealed conduit connections, ground rod, installation.

B. Conduit:
   1. Conduit, Trenched and Trenchless:
         Each size of conduit will be measured in linear feet along its centerline, from face of structure to face of structure. Directionally drilled conduit will be measured according to 3010-108-K.
      b. Payment:
         Payment will be at the bid unit price per linear feet of each size and type of conduit installed within a trench or by directional drilling. Bedding and backfill will be paid separately, at the bid unit price.
      c. Includes:
         Unit Price Includes, but is not limited to conduit, innerduct (if required), tracer wire, couplings, bends, sweeps, fittings, pull tape, and installation.
DIVISION 8 – TRAFFIC
Section 8010 – EQUIPMENT, LIGHTING, AND SIGNALS

2. Conduit, Re-Route:
   a. Measurement:
      Each size of conduit will be measured in linear feet along its centerline,
      from the coupling to the face of structure.
   b. Payment:
      Payment will be at the bid unit price per linear foot of each size and type
      of new conduit installed to re-route an existing conduit to a new
      structure. Bedding and backfill will be paid separately, at the bid unit
      price.
   c. Includes:
      Unit Price Includes, but is not limited to; removal, modifying and
      reinstalling the existing wiring and cable; modifying the existing innerduct
      as needed; modifying the existing conduit as needed; new conduit, tracer
      wire, couplings, bends, sweeps, fittings, pull tape and installation.

3. Conduit, Innerduct:
   a. Measurement:
      The length of the (4) 1” innerduct will be calculated by subtracting the
      beginning number, shown on the innerduct, from the ending number.
   b. Payment:
      Payment will be at the bid unit price per linear foot of innerduct installed.
      The unit price is for the installation of 4 - 1” innerduct conduits within an
      existing single 4” conduit.
   c. Includes:
      Unit Price Includes, but is not limited to; 4 - 1” innerduct conduit, tracer
      wire, pull tape, and installation.

C. Wiring and Cable:
   a. Measurement:
      Each type and size of wire or cable will be measured in linear feet, from
      face of structure to face of structure.
      Wiring or cabling within structures, cabinets, and poles will not be
      measured.
   b. Payment:
      Payment will be at the bid unit price per linear foot of each type and size
      of wire or cable installed.
      Payment for wire and cable within structures, cabinets, and poles shall
      be considered incidental and merged into the unit price of the wire of
      cable.
   c. Includes:
      Unit Price Includes, but is not limited to, wire or cable, accessories, and
      installation.

D. Footings:
   1. Street Light Precast Concrete Base:
      a. Measurement:
         Each type of precast footing will be counted.
      b. Payment:
         Payment will be at the bid unit price for each precast footing installed.
         Bedding and backfill will be paid separately, at the bid unit price.
      c. Includes:
         Unit Price Includes, but is not limited to, excavation, placing bedding and
         backfill material, precast base unit, installation, conduit connections.
2. Fiber Optic Hub Precast Concrete Base:
   a. Measurement: Each base will be counted.
   b. Payment: Payment will be at the bid unit price for each Base installed.
   c. Includes: Unit Price Includes, but is not limited to, excavation, placing bedding and backfill material, precast concrete fiber hub base unit, installation.

3. Lighting Controller Precast Concrete Base:
   a. Measurement: Each base will be counted.
   b. Payment: Payment will be at the bid unit price for each base installed.
   c. Includes: Unit Price Includes, but is not limited to, excavation, placing bedding and backfill material, precast concrete lighting controller base unit, installation.

4. Traffic Controller Cabinet Precast Concrete Base:
   a. Measurement: Each base will be counted.
   b. Payment: Payment will be at the bid unit price for each base installed.
   c. Includes: Unit Price Includes, but is not limited to, excavation, placing bedding and backfill material, traffic controller cabinet precast concrete base unit, installation.

5. Electrical Service Control Pedestal Precast Concrete Base:
   a. Measurement: Each base will be counted.
   b. Payment: Payment will be at the bid unit price for each base installed.
   c. Includes: Unit Price Includes, but is not limited to, excavation, placing bedding and backfill material, Electrical Service Control Pedestal Precast Concrete Base unit, installation.

E. Bonding and Grounding:
   a. Measurement: Ground Rods will not be counted.
   b. Payment: Ground rods are incidental to the structure.

F. Vaults:
   1. Fiber Optic Vault Precast Concrete:
      a. Measurement: Each vault will be counted.
      b. Payment: Payment will be at the bid unit price for each vault.

   2. Fiber Optic Vault - Composite:
      a. Measurement: Each vault will be counted.
      b. Payment: Payment will be at the bid unit price for each vault.
G. Connections to Handholes and Vaults:
   a. Measurement:
      Each Additional core drilled connection, as directed by the Jurisdiction,
      will be counted. Core drilled connections, shown on the plans, to new or
      existing structures will not be counted and are considered incidental to
      the project.
   b. Payment:
      Additional core drilled connections to structures, as directed by the
      Jurisdiction, will be paid at $75 for each additional core drilled opening.
   c. Includes:
      Unit Price Includes, but is not limited to, core drilling the opening for 1
      1/2" thru 4" conduit, Sealing the annular space between the conduit and
      the opening with flexible sealant.

H. Fiber Optic Hub Cabinet:
   a. Measurement:
      Each cabinet will be counted.
   b. Payment:
      Payment will be at the bid unit price for each cabinet installed.
   c. Includes:
      Unit Price Includes, but is not limited to, fiber optic hub cabinet,
      installation, and connection of the electrical service to the cabinet.

I. Traffic Controller Cabinet and Controller:
   a. Measurement:
      Each cabinet will be counted.
   b. Payment:
      Payment will be at the bid unit price for each cabinet installed.
   c. Includes:
      Unit Price Includes, but is not limited to, traffic controller cabinet and
      controller, installation, and connection of the electrical service to the
      cabinet, All traffic signal wiring terminations within the cabinet

J. Electrical Service Control Pedestal with Battery Backup:
   a. Measurement:
      Each cabinet will be counted.
   b. Payment:
      Payment will be at the bid unit price for each cabinet installed.
   c. Includes:
      Unit Price Includes, but is not limited to, electrical service control pedestal and
      controller, installation, and connection of the electrical service to the cabinet, All
      traffic signal wiring terminations within the cabinet. Power Supply Cabinet with
      meter socket. All wiring terminations within the cabinet.
      Fees to supply electrical service to the cabinet.

K. Traffic Signal:
   3. Includes but is not limited to:
      a. Precast Concrete Mastarm Base
      b. Mastarm and Pedestal Poles
      c. Signals
      d. Detection Equipment
      e. Cameras
      f. Brackets and mounting hardware
      g. Luminaires
      h. Bedding and backfill will be paid separately, at the bid unit price.
L. Traffic Signal – Temporary:
3. Includes but is not limited to:
   a. Precast Concrete Mastarm Base
   b. Mastarm and Pedestal Poles
   c. Signals
   d. Detection Equipment
   e. Cameras
   f. Brackets and mounting hardware
   g. Luminaires
   h. Bedding and backfill will be paid separately, at the bid unit price.

M. Street Light:
   a. Measurement:
      Each street light will be counted.
   b. Payment:
      Payment will be at the bid unit price for each street light installed.
   c. Includes:
      Unit Price Includes, but is not limited to, pole, arm, light fixture, and wiring connections.

N. Removal:
   1. Existing Handhole:
      a. Measurement:
         Each handhole removed will be counted.
      b. Payment:
         Payment will be at the bid unit price for each handhole removed. Backfill will be paid separately, at the bid unit price.
      c. Includes:
         Unit Price Includes, but is not limited to, Removal of a cast-in-place or precast concrete handhole or composite handhole, placing backfill material, removal of conduit and wire, protecting or reconnecting wiring to remain.

   2. Relocate Existing Light Pole and Precast Concrete Base:
      a. Measurement:
         Each precast footing will be counted.
      b. Payment:
         Payment will be at the bid unit price for each precast footing removed and relocated. Bedding and backfill will be paid separately, at the bid unit price.
      c. Includes:
         Unit Price Includes, but is not limited to, Removal and reinstallation of a street light or pedestrian signal pole, removal and reinstallation of the precast concrete base, excavation, placing bedding and backfill material, additional conduit, additional wire, reconnecting the wiring.

   3. CIP or PC Concrete Base:
      a. Measurement:
         Each base will be counted.
      b. Payment:
         Payment will be at the bid unit price for each base removed.
      c. Includes:
         Unit Price Includes, but is not limited to, excavation, complete base removal, placing backfill material in accordance with section 3010.
4. Abandonment of CIP or PC Concrete Base:
   a. **Measurement:**
      Each base will be counted.
   b. **Payment:**
      Payment will be at the bid unit price for each base removed.
   c. **Includes:**
      Unit Price Includes, but is not limited to, excavation, removal of the top of the base to two feet below proposed subgrade, placing backfill material in accordance with section 3010.

End of Section 8010 – EQUIPMENT, LIGHTING, AND SIGNALS
Section 8020 – PAVEMENT MARKINGS

PART 1 - GENERAL

1.01 SECTION INCLUDES
Follow Iowa Department of Transportation Specification Section 2527

End of Section 8020 – PAVEMENT MARKINGS
Section 8030 – TRAFFIC CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES
Follow Iowa Department of Transportation Specification Section 2528

End of Section 8030 – TRAFFIC CONTROL
Section 8040 – TRAFFIC SIGNS

PART 1 - GENERAL

1.01 SECTION INCLUDES
Replace Article 1.01 in its entirety with the following:
Follow Iowa Department of Transportation Specification Section 2524

End of Section 8040 – TRAFFIC SIGNS
Section 9010 – SEEDING

PART 1 - GENERAL

1.03 SUBMITTALS  Add the new C to Article 1.03:

C. All materials to be incorporated into the work must have certifications furnished which show that the materials comply with the Specifications prior to any construction.

End of Section 9010 – SEEDING