EVALUATION

Hazel CSO Sewer Separation, Sanitary Extension, and Water Main Improvements

Invitation For Bid

Engineering

06578, 66500, 67053, 89000, 89081... show all

Project ID: 26-039

Release Date: Wednesday, April 29, 2026

Due Date: Wednesday, May 13, 2026 11:00am

Posted Wednesday, April 29, 2026 9:20am

Bid Unsealed Wednesday, May 13, 2026 11:00am by OpenGov Bot

Pricing Unsealed Wednesday, May 13, 2026 11:00am by OpenGov Bot

All dates & times in Central Time

1. INSTRUCTIONS TO BIDDERS

1.1. SUMMARY

The City of Aurora, IL invites you to bid on the anticipated Installation of 3850 LF of 8” DIP Water Main, 3460 LF of Storm Sewer, 465 LF of Sanitary Sewer, 7500 LF of 1” directional drill copper water services, and other miscellaneous appurtenances all in accordance with the Plans and specifications.

1.2. TIMELINE

Release Project Date:	April 29, 2026
Question Submission Deadline:	May 6, 2026, 11:00am
Question Response Deadline:	May 8, 2026, 11:00am
Response Submission Deadline:	May 13, 2026, 11:00am

1.3. ACCEPTANCE OF BID PROPOSALS

a. Bidders intending to respond to this opportunity must create a FREE account with OpenGov by signing up at https://procurement.opengov.com/signup. This step is necessary to establish a communication link with the City. The Bidder, not the City, is responsible for obtaining any addenda to the original specification. Addenda and other relevant information will be posted on the City’s E Procurement System. Addenda notifications will be emailed to all persons on record as following this Bid. Failure of any bidder to receive any such addenda or interpretation shall not relieve such bidder from any obligation under their bid proposal as submitted. All addenda so issued shall become part of the contract documents. **Paper submissions will not be accepted.**

b. Bids may be received up to, but no later than the designated date and time as specified via the City’s E Procurement System, OpenGov. The City’s E Procurement System Clock is the official clock for the determination of all deadline dates and times. Without exception, responses will not be accepted after the submission deadline regardless of any technical difficulties such as poor internet connections. The City of Aurora strongly recommends completing your responses well ahead of time. All bids shall have provided all requested information, and submitted all appropriate forms, certificates, affidavits and addendum acknowledgements in order to be considered responsive.

c. Bids must be submitted on the forms provided and all information and certifications called for must be furnished. Bids submitted in any other manner, or which fail to furnish all information or certificates required, may be summarily rejected. Bids may be modified or withdrawn prior to the time specified for the opening of bids through the City's E Procurement System. Bids shall be filled out legibly in ink or type-written with all erasures, strikeovers and corrections initialed in ink by the person signing the bid. The bid shall include the legal name of the bidder, the complete mailing address, and be signed in ink by a person or persons legally authorized to bind the bidder to a Bid. Name of person signing should be typed or printed below the signature.

d. The City of Aurora reserves the right at any time and for any reason to accept or reject any or all Bids or portion thereof, or accept an alternate bid. The City reserves the right to waive any immaterial defect in any bid, or technicality, informality or irregularity in the bids received, and to disregard all nonconforming or conditional bids or counter-proposals. Unless otherwise specified by the bidder or the City, the City reserves the right to hold the best bids for ninety (90) days from the opening date. Bidder agrees to accept a notice of award, if selected, based on the terms of this Bid Proposal in the event that a notification of award is received on or before expiration of the 90-day time period. The City reserves the right to cancel the Bid Proposal at any time, without liability for any loss, damage, cost or expense incurred or suffered by any Bidder as a result of that cancellation. Each Bidder is solely responsible for the risk and cost of preparing and submitting a Bid Proposal.

e. Although price is a consideration, qualifications and experience, capacity to handle the work, and response to the bid, will also be considered. No Bid Proposal will be considered unless the Bidder shall furnish evidence satisfactory to the City that they have the necessary facilities, abilities, experience, equipment, and financial and physical resources available to fulfill the conditions of the Bid and execute the Work should the Bid be awarded to them. Bid Proposal documents which are not responsive to the requirements herein may not be considered by the City for an award of the Bid.

The Bid will be awarded to the lowest responsive responsible Bidder. In determining the responsibility of any Bidder, the City may take into account other factors such as past records of its or other entities transactions with the Bidder, experience, ability to work cooperatively with the City and its staff, adequacy of equipment, ability to complete performance within necessary time limits, and other pertinent considerations such as, but not limited to, reliability, reputation, competency, skill, efficiency, facilities and resources.

The Bidder will be awarded in the City's best interests based on these and other legally-allowable considerations. The City and its representatives and agents may make any investigations deemed necessary to determine the ability of the Bidder to perform the Work. The Bidder shall furnish any information and data requested by the City for this purpose.

1.4. RECEIPT OF BID PROPOSALS

a. **Bids must be submitted electronically**, up to, but no later than the designated date and time as specified via the City's E Procurement System, OpenGov. It is the sole responsibility of the Bidder to see that their Bid Proposal is received in the proper time.
b. **Bids must be submitted electronically via the City's E Procurement System. There will be no exceptions!**

1.5. WITHDRAWAL OF BID PROPOSALS

Bids may be withdrawn prior to the deadline for submitting bid proposals through the City's E Procurement System, the responding bidder may "un-submit" their proposal in OpenGov. After withdrawing a previously submitted proposal, the responding bidder may submit another proposal at any time up to the deadline for submitting bid proposals prior to the opening.

Bidders are cautioned to verify their bids before submission. Negligence on the part of the bidder in preparing the bid confers no right for withdrawal or modification of the bid after it has been opened. Bidders may not withdraw their bid after the opening without the approval of the Director of Purchasing. Requests to withdraw a bid must be in writing and properly signed. No bid proposal will be opened or accepted, which is received after the time and date scheduled for the Bid Proposals to be received.

1.6. BID DEPOSIT

Each Bidder shall deposit with Bid a Bid guarantee consisting of a bank draft, Bid bond, cashier's check, or certified check drawn on a good and solvent National or State Bank and payable to the order of the City, in an amount not less than ten percent (10%) of the total amount of the Bid submitted, as a guaranty that in case the Bidder's Bid is accepted, the Bidder shall within one day after the date of such acceptance and notification thereof, deliver to the City a contract signed and executed by the Bidder, proper insurance certificates and a Performance and Payment Bond in one hundred percent (100%) of the contract sum furnished by a responsible bonding company acceptable to and written upon forms prepared or approved by the City as security for payment of labor and materials and for the faithful performance of the contract and compliance with the provisions of law relating to the payment of prevailing rate of wages. **Bid Deposit MUST be uploaded electronically with submission through the City's E Procurement System, OpenGov.** Upon notification from the City, Bidder's must deliver ORIGINAL Bid Deposit within three (3) business days. All Bid deposits will be retained by the City until a Bid award is made, at which time the Bid deposit will be promptly returned to the unsuccessful Bidders. The Bid deposit of the successful Bidder will be retained until the equipment, goods or services have been received or completed and found to be in compliance with the specifications. Performance by the Bidder shall not be considered complete, until final inspection and acceptance by the

City of the Bidder's Work. Final inspection shall occur within 30 days after the actual completion of the Work. Execution of the contract is contingent upon receipt of an acceptable Performance and Payment Bond and any required certificates of insurance. Upon failure to meet the requirements of this paragraph, the Bidder shall forfeit the amount deposited as liquidated damages and no mistakes or errors on the part of the Bidder shall excuse the Bidder or entitle him to a return of the aforementioned amount.

1.7. AWARD

It is the intent of the City to award the bid to the lowest responsive responsible bidder meeting specifications. Award will be based on the following factors, but not limited to (where applicable): (a) adherence to all conditions and requirements of the bid specifications; (b) price; (c) qualifications of the bidder, including past performance, financial responsibility, general reputation, experience, service capabilities, and facilities; (d) delivery or completion date; (e) product appearance, workmanship, finish, taste, feel, overall quality, and results of product testing; (f) maintenance costs and warranty provisions; and (g) repurchase or residual value.

If the Bidder modifies limits, restricts or subjects his bid proposal to conditions that would change the requirements of the bid, this would be considered a conditional or qualified Bid Proposal and will not be accepted. The City reserves the right to delete any item listed in the bid.

1.8. PRICES

The price quoted for each item is the full purchase price, including delivery to destination and includes all transportation and handling charges, premiums on bonds, material or service costs and all other overhead charges of every kind and nature. Unless otherwise specified, prices shall remain firm for the duration of the purchase.

Unit prices shall not include any local, state or federal taxes. In case of mistake in extension of price, unit price shall govern.

1.9. DISCOUNTS

Prices quoted must be net after deducting all trade and quantity discounts. Where cash discounts for prompt payment are offered, the discount period shall begin with the date of receipt of a correct invoice or receipt or final acceptance of goods, whichever is later.

1.10. TAXES

The City of Aurora is exempt, by law, from paying State and City Retailer's Occupation Tax, State Service Occupation Tax, State Use Tax and Federal Excise Tax (per Illinois Revised Statutes, Chapter 120, Paragraph 44) upon City works and purchases. The City of Aurora's Sales Tax Exemption Number is E9996-0842-07.

1.11. INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

Bidders shall promptly notify the City of any ambiguity, inconsistency of error which they may discover upon examination of the bidding documents. Interpretations, corrections and changes will be made by addendum. Each bidder shall ascertain prior to submitting a bid that all addenda have been received and acknowledged in the bid.

1.12. SIGNATURES

Bid Proposals must be signed by the Bidder with his/her usual signature. Bid Proposals by partnerships must be signed with the partnership name by all members of the partnership, or an authorized representative, followed by the signature and title of the person signing. Bid Proposals by corporations must be signed with the name of the corporation, followed by the signature and title of the person authorized to bind it in the matter.

When a corporation submits a Bid Proposal, its agent must present legal evidence that he has lawful authority to sign said Bid Proposal and that the corporation has a legal existence. In the event that any corporation organized and doing business under the laws of any foreign state is the successful Bidder, such corporation must present evidence before any Bid is executed that it is authorized to do business in the State of Illinois. Bidders by corporations must be executed in the corporate name by the President or a Vice President (or other corporate officer accompanied by evidence of authority to sign), and the signature must be attested by the Secretary or an Assistant Secretary, along with the corporate seal. The corporate address and state of incorporation must be shown below the signature. Bid Proposals by partnerships must be executed in the partnership name and signed by a partner whose title must appear under the signature, and the official address of the partnership must be shown below the signature. Any corrections to entries made on the Bid Proposal forms shall be initialed by the person signing the Bid Proposal. When requested by the City, satisfactory evidence of the authority of any signature on behalf of the Bidder shall be furnished.

1.13. DEMONSTRATIONS

Bidders are required, if requested to do so, to affect a demonstration of the item(s) being Bid if the City feels it has insufficient knowledge of the item's operations or performance capability. Such demonstration must be at a site which is most convenient and agreeable to the effected City personnel.

1.14. REFERENCES

Sufficient references of all like public and/or private agencies must be submitted in the Vendor Submission section. Listing must include company name, contact person, telephone number and date purchased. All Bidders, as a condition of and prior to entry into a contract, agree that a complete background investigation of the principals of the Bidder and all employees who will work on the project may be made. Bidders agree to cooperate with the appropriate City of Aurora personnel to supply all information necessary to complete these investigations. The City of Aurora in its complete discretion may disqualify any Bidder, including low Bidder, and may void any contract previously entered into based on its background investigation.

1.15. ELIGIBILITY

By signing this bid, the bidder hereby certifies that they are not barred from bidding on this Bid as a result of a violation of Article 33E, Public Bids of the Illinois Criminal Code of 1961, as amended (Illinois Compiled Statutes, 720 ILCS 5/33E-1).

1.16. DATA

Complete and detailed brochures and vehicles, equipment, materials, goods, supplies and/or services to be furnished must be included with each Bid.

1.17. QUESTIONS

Bidders shall submit all inquiries, including requests for alternates or substitutions regarding this bid, up to, but **no later than the designated date and time as specified via the City's E Procurement System, OpenGov.** All answers to inquiries will be posted on the City's E Procurement System. Bidders may also click "Follow" on this bid to receive an email notification when answers are posted.

No questions will be accepted or answered verbally.

No questions will be accepted or answered after the cut-off date/time.

It is the responsibility of the interested bidder to ensure they have received addenda, if any issued.

1.18. Illinois Freedom of Information Act

Illinois Freedom of Information Act. The Contractor acknowledges the requirements of the Illinois Freedom of Information Act (FOIA) and agrees to comply with all requests made by the City of Aurora for public records (as that term is defined by Section 2(c) of FOIA in the undersigned's possession and to provide the requested public records to the City of Aurora within two (2) business days of the request being made by the City of Aurora. The undersigned agrees to indemnify and hold harmless the City of Aurora from all claims, costs, penalty, losses and injuries (including but not limited to, attorney's fees, other professional fees, court costs and/or arbitration or other dispute resolution costs) arising out of or relating to its failure to provide the public records to the City of Aurora under this agreement.

2. GENERAL REQUIREMENTS

2.1. REQUIREMENTS OF BIDDER

The successful Bidder will be required to (a) enter into a fully signed contract in writing with the City of Aurora covering matters and things as are set forth in the Bid Proposal Package; and (b) carry insurance acceptable to the City covering public liability, property damage and workers compensation.

2.2. CITY'S AGENT

The Director of Purchasing, or delegate, shall represent and act for the City in all matters pertaining to the bid proposal and Bid in conjunction thereto.

2.3. BONDS AND INSURANCE

The Bidder will be required to furnish a Performance and Payment Bond in the amount of one hundred percent (100%) of the full contract price, Public Liability Insurance, and Workers Compensation Insurance; all of which shall be acceptable to the City of Aurora.

The Bidder awarded the project will need to provide performance and payment bonds for one year with a letter attached from the bond company certifying that the bond may be automatically renewed for the second year.

The term Payment Bond shall be understood to mean the bond executed by the Bidder and his surety guaranteeing the payment of all sums of money due for any labor, materials, apparatus, fixtures, or machinery furnished to such principal for the purpose of performing the contract work.

The term Performance Bond shall be understood to mean the bond, executed by the contractor and his surety, guaranteeing complete execution of the contract.

Proof of liability insurance coverage through a reputable, recognized carrier shall be provided at the time of acceptance and signing of the contract and shall remain current for the duration of the contract.

The City of Aurora, by showing and substantiating sufficient proof of incompetence, negligence, poor or substandard workmanship which would cause unwarranted damage or deterioration of either premises, contents or appendages, reserves the right to terminate said Contractor without recourse from the City by successful Contractor.

2.4. INVESTIGATION

It shall be the responsibility of the Bidders to make any and all investigations necessary to become thoroughly informed of what is required and specified in the bid. No plea of ignorance by the Bidders of conditions that exist or may hereafter exist as a result of failure or omission on the part of the Bidder to make the necessary examinations and investigations will be accepted as a basis for varying the requirements of the City of the compensation to the Bidder.

Each Bidder submitting a bid proposal is responsible for examining the complete Invitation to Bid Package and all Addenda, and is also responsible for informing itself of all conditions that might in any way affect the cost or the performance of any Work. Failure to do so will be at the sole risk of the Bidder, and no relief will be given for errors or omissions by the Bidder. If awarded the Bid, the Bidder will not be allowed any extra compensation by reason of any matter or thing concerning which such Bidder should have fully informed himself, because of his failure to have so informed himself prior to submitting the bid proposal. The submission of a bid proposal shall be construed as conclusive evidence that the Bidder has made such examination as is required in this section and that the Bidder is conversant with local facilities and difficulties, the requirements of the Invitation to Bid documents, and of pertinent, local, state and federal laws and codes, prevailing local labor and material markets, and has made due allowance in its bid proposal for all contingencies.

2.5. BIDDER CAPABILITY

The City reserves the right to require of the Bidder proof of his/her capability to perform as required by the specifications. However, prequalification of the Bidder shall not be required. The City may, at its option, disqualify a Bidder and reject his bid proposal for cause. Reasons deemed sufficient for this action shall include, but not be limited to, the following:

Evidence of collusion among Bidders.

- Receipt of more than one bid proposal on any project from an individual, or from a corporation. This restriction does not apply to subcontractors.
- Default on any previous Bid.
- Unreasonable failure to complete a previous Bid within the specified time or for being in arrears on an existing Bid without reasonable cause for being in arrears.
- Inability to perform as revealed by an investigation of the Bidder's financial statement, experience and/or plant and equipment.
- **Any Bidder who owes the city money may be disqualified at the City’s discretion.**

2.6. ALTERNATE PROPOSALS

The specifications are prepared to describe the goods and/or service which the City deemed to be in the best interest to meet its performance requirements. Bidders desiring to submit a Bid Proposal on items which deviate from the stated specifications, but which they believe to be equal, may do so by submitting all inquiries via the City’s E Procurement System, OpenGov, but all specification deviations must be clearly stated. Bidders shall submit all inquiries, including requests for alternates or substitutions regarding this bid via the City’s E Procurement System by the designated date and time. All answers to inquiries, including requests for alternates or substitutions, will be posted on the City’s E Procurement System. Bidders may also click “Follow” on this bid to receive an email notification when answers are

posted. It is the responsibility of the interested bidder to ensure they have received addendum, if any issued. The Purchasing Director reserves the right to rule upon specification deviation in a manner as best befits the needs of the City. The Purchasing Director will reject all deviations that amount to material nonconformity with the specifications of the Bid Proposal.

2.7. PAYMENT

Payment shall be made for services rendered. The City, after inspection and acceptance, and in consideration of the faithful performance by the Proposer, agrees to pay for the completion of the work embraced in this contract, payment shall be made in accordance with the Illinois Local Government Prompt Payment Act (50 ILCS 505/1, et. seq.) upon receipt of the invoice.

Time, in connection with any discount offered, will be computed from the date of delivery to the City or from the date a correct invoice is received by the City of Aurora Purchasing Division, if the latter date is later than the date of delivery.

Prices will be considered NET, if no payment discount is shown.

Invoices MUST contain the Purchase Order Number, as issued by the City.

The successful Bidder shall submit invoices via e-mail to:

PurchasingDL@aurora.il.us

or Mail to the following address:

City of Aurora

Attn: Purchasing Division

44 E. Downer Place

Aurora, IL 60507

The City of Aurora offers electronic funds transfer (EFT) payment to our vendors. EFT is fast, simple, safe and secure and is ***our preferred method of payment!***

2.8. DEFAULT

Time is of the essence of this bid and if delivery of acceptable items or rendering of services is not completed by the time promised, the City reserves the right, without liability, in addition to its other rights and remedies, to terminate the Bid by notice effective when received by Bidder, as to stated items not yet shipped or services not yet rendered. The City will procure articles or service from other sources and hold the Bidder responsible for any excess cost incurred as provided for in Article 2 of the Uniform Commercial Code.

2.9. INSPECTION

Materials or equipment purchased are subject to inspection and approval at the City's destination. The City reserves the right to reject and refuse acceptance of items which are not in accordance with the instructions, specifications, drawings or data of Bidder's warranty (express or implied). Rejected materials or equipment shall be removed by, or at the expense of, the Bidder promptly after rejection.

2.10. WARRANTY

Bidder warrants that all goods and services furnished hereunder will conform in all respects to the terms of the solicitation, including any drawings, specifications or standards incorporated herein, and that they will be free from latent and patent defects in materials, workmanship and title, and will be free from such defects in design. In addition, Bidder warrants that said goods and services are suitable for, and will perform in accordance with, the purposes for which they are purchased, fabricated, manufactured and designed or for such other purposes as are expressly specified in this solicitation.

2.11. CANCELLATION

The City reserves the right to cancel the whole or any part of the Bid if the Bidder fails to perform any of the provisions in the Bid or fails to make delivery within the time stated. The Bidder will not be liable to perform if situations arise by reason of strikes, acts of God or public enemy, acts of the City, fires or floods.

2.12. PERMITS AND LICENSES

The successful Bidder shall obtain, at its own expense, all permits and licenses which may be required to complete the contract.

2.13. PATENT

The successful Bidder agrees to indemnify, protect, defend, and save the City of Aurora and its officers and employees, harmless against any demand for payment for the use of any patented material process, article, or device that may enter into the manufacture, construction, presentation or form a part of the Work covered by the contract.

2.14. COMPLIANCE WITH LAWS AND REGULATIONS

The Bidder shall at all times observe and comply with all Federal, State, Municipal and other local laws, ordinances, regulations, and requirements which in any manner affect the conduct of the Work, and with all Federal, State and local laws and policies of non-discrimination, sexual harassment, prevailing wages and others applicable thereto; and all such orders or decrees as exist at the present and which may be enacted later, of bodies or tribunals having jurisdiction or authority over the Work, and no plea of misunderstanding or ignorance thereof will be considered. He shall indemnify and save harmless the City and all its officers, agents, employees and servants against any requirement, claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees.

This Bid shall be governed by and construed according to the laws of the State of Illinois.

2.15. INSURANCE AND HOLD HARMLESS PROVISION

At the Bidder's expense, the Bidder shall secure and maintain in effect throughout the duration of this Bid, insurance of the following kinds and limits to cover all locations of the Bidder's operations. The Bidder shall furnish Certificates of Insurance to the City before starting or within ten (10) days after the execution of the Bid, whichever date is reached first. All insurance policies shall be written with insurance companies approved by the City of Aurora and licensed to do business in the State of Illinois and having a rating of not less than A:VII, according to the latest edition of the A.M. Best Company; and shall include a provision preventing cancellation of the insurance policy unless thirty (30) days prior written notice is given to the City. This provision shall also be stated on each Certificate of Insurance as: "Should any of the above-described policies be canceled before the expiration date thereof, the issuing company will endeavor to mail 30 days written notice to the certificate holder named to the left". Upon requested, the awardee of this Bid will give the City a copy of the insurance policies. The policies must be delivered to the City within two weeks of the request. The limits of liability for the insurance required shall provide coverage for not less than the following amount, or greater where required by law:

(1) Worker's Compensation Insurance - Statutory amount.

(2) General Liability Insurance:

  (a) $1,000,000 per occurrence and $2,000,000 general aggregate (combined single limit)

  (b) $1,000,000 per occurrence for Personal Injury

(3) Auto Liability Insurance:

  (a) Combined single limit not less than $1,000,000

(4) Umbrella excess liability of $4,000,000 per occurrence, $4,000,000 aggregate

The Bidder shall include the City as a primary, non-contributory additional named insured on the General, Auto Liability, and Umbrella insurance policies and indicate said status on any Certificates of Insurance provided to the City pursuant to this project. All insurance premiums shall be paid without cost to the City.

The Bidder agrees to indemnify and save harmless the City of Aurora, their elected officials, employees, agents and volunteers from and against all loss and expenses (including costs and attorneys' fees) by reason of liability imposed by law or claims made upon the City of Aurora for damages because of bodily injury, including death at any time resulting therefrom sustained by any person or persons or on account of damage to property, including loss of use thereof, arising out of or in consequence of the performance of this project work, whether such claims or injuries to persons or damage to property be due to the negligence of the Bidder or his Subcontractors. The Bidder shall assume total risk and shall be responsible for any and all damages or losses caused by or in any way resulting from the work and provide all insurance necessary to protect and save harmless the City of Aurora and its employees.

The Bidder agrees to a waiver of subrogation. Neither the Bidder nor its insurers shall have the right to pursue the City to recover its costs associated with a clair,, arising out of the provision of the services required.

WORKERS COMPENSATION ACT

The Bidder further agrees to insure his employees and their beneficiaries and to the employees and the beneficiaries of any subcontractor employed from time to time by him on said Work, the necessary first-aid, medical, surgical, and hospital services and any compensation provided for in the Workers Compensation Act of the State of Illinois that is or may be in force in the State.

Such insurance shall be placed by said Bidder in a company or association (to be approved by the City and to be accepted by the Council thereof) authorized under the laws of the State of Illinois to insure the liability above specified.

Said Bidder hereby further agrees to indemnify, keep and save harmless said City from all action, proceedings, claims, judgments, awards, and costs, loss, damages, expenses, and attorney's fees which may in any way come against said City by reason of any accidental injuries or death suffered by any of his employees or the employees of any subcontractor employed by him in and about the performance of the Work provided for in the Bid, and any and all liability resulting thereupon; and said Bidder, in case of any suit, action, or proceeding on account of any or all of the foregoing shall defend the same for and on behalf of said City and indemnify the City therefore, and pay the amount of any and all awards and final judgments and orders rendered and entered therein, together with all loss, costs, damages, attorney's fees, and expenses incurred therein. Said Bidder shall be the sole employer of its employees and workers, and in no way shall the City be considered a joint employer of same under any circumstance.

PERSONNEL AND EQUIPMENT

The Bidder shall provide an adequate number of competently trained personnel with sufficient supervision to provide the services required, and the Bidder shall provide identification of its personnel if requested by the City.

Any Bidder's employee whose employment is reasonably detrimental or objectionable to the City shall be immediately transferred from the premises upon the City's request. The exercise of the option shall not be construed as placing the City in charge of the Work or making the City responsible for safety.

All on the road vehicles or equipment shall be identified by the Bidder's name for purpose of identification.

All tools or equipment required to carry out the operations within the scope of the contract shall be provided by the Bidder, and shall meet the standards of the Federal Occupational Safety and Health Act and State of Illinois safety codes as may be required by law. The City reserves the right to inspect the equipment that will be used prior to award of Bid.

2.16. WORKERS COMPENSATION ACT

The Bidder further agrees to insure his employees and their beneficiaries and to the employees and the beneficiaries of any subcontractor employed from time to time by him on said Work, the necessary first-aid, medical, surgical, and hospital services and any compensation provided for in the Workers Compensation Act of the State of Illinois that is or may be in force in the State.

Such insurance shall be placed by said Bidder in a company or association (to be approved by the City and to be accepted by the Council thereof) authorized under the laws of the State of Illinois to insure the liability above specified.

Said Bidder hereby further agrees to indemnify, keep and save harmless said City from all action, proceedings, claims, judgments, awards, and costs, loss, damages, expenses, and attorney's fees which may in any way come against said City by reason of any accidental injuries or death suffered by any of his employees or the employees of any subcontractor employed by him in and about the performance of the Work provided for in the Bid, and any and all liability resulting thereupon; and said Bidder, in case of any suit, action, or proceeding on account of any or all of the foregoing shall defend the same for and on behalf of said City and indemnify the City therefore, and pay the amount of any and all awards and final judgments and orders rendered and entered therein, together with all loss, costs, damages, attorney's fees, and expenses incurred therein. Said Bidder shall be the sole employer of its employees and workers, and in no way shall the City be considered a joint employer of same under any circumstance.

2.17. PERSONNEL AND EQUIPMENT

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All on the road vehicles or equipment shall be identified by the Bidder's name for purpose of identification.

All tools or equipment required to carry out the operations within the scope of the contract shall be provided by the Bidder, and shall meet the standards of the Federal Occupational Safety and Health Act and State of Illinois safety codes as may be required by law. The City reserves the right to inspect the equipment that will be used prior to award of Bid.

2.18. LOCAL BIDDER PREFERENCE

O20-029 approved April 28, 2020 defines “Local business” to mean a vendor or contractor who has a valid, verifiable physical business address located within the corporate boundaries of the City of Aurora at least twelve months prior to a bid or proposal opening date, from which the vendor, contractor or consultant operates or performs business on a daily basis, including manufacturing production or distribution. The business must disclose the percentage of workforce in the City of Aurora; be registered with the City of Aurora, if applicable; be subject to City of Aurora taxes (inclusive of sales taxes); be current with property tax payments and sales tax payments; not have any outside cited code violations; not have any outstanding debts to the City of Aurora; have adequately qualified and trained staff to service the bid of interest.

2.19. MINORITY PARTICIPATION

The City of Aurora encourages minority business firms to submit Bidders and encourages the successful Bid Bidder to utilize minority businesses as sub-contractors for supplies, equipment, services and construction.

2.20. PROSECUTION OF WORK

The Bidder shall begin the Work to be performed under the Bid as specified in the specifications after the execution and acceptance of the Bid, unless otherwise provided. The Work shall be conducted in such a manner and with sufficient materials, equipment and labor as is considered necessary to ensure its completion within the time specified in the Bid.

2.21. TIME

Bidder shall schedule its Work to meet the requirement of the City. Bidder shall perform the Work expeditiously in cooperation with the City’s agents, employees, Bidders and subcontractors. Bidder shall make no claim against City and no claim shall be allowed for any damages which may arise out of any delay caused by City, its agents, employees, Bidder or subcontractors. Bidder’s sole remedy for delay shall be an extension in the Bid time.

2.22. SPECIAL CONDITIONS

Wherever special conditions are written into the Special Conditions and Specifications which are in conflict with conditions stated in these Instructions to Bidders, the conditions stated in Special Conditions and Specifications shall take precedence.

2.23. REGULATORY COMPLIANCE

Bidder represents and warrants that the goods or services furnished hereunder (including all labels, packages and container for said good) comply with all applicable standards, rules and regulations in effect under the requirements of all Federal, State and local laws, rules and regulations as applicable, including the Occupational Safety and Health Act as amended, with respect to design, construction, manufacture or use for their intended purpose of said goods or services. Bidder shall furnish "Safety Data Sheet(s)" in compliance with the Illinois Toxic Substances Disclosure to Employees Act.

2.24. PROTECTION AND RESTORATION OF PROPERTY

It is understood that in the execution of the Work herein provided for there may be interference with and/or damage to trees, shrubbery, crops, fences, railroad tracks, overhead structures such as poles, wires, cables, underground structures such as sewers, gas mains, telephone conduits and cables, water mains, drains, service connections, wires, pipes, conduits, located along, adjacent to, and/or crossing the locations of the Work, and that it may be necessary to relocate or reconstruct certain of such structures, improvements, and installations and/or to make repairs to the same by reasons of doing the Work herein provided for, and it is therefore particularly and specifically agreed that the Bidder except as otherwise herein provided, shall do the Work necessary for such relocation, reconstruction, and repair and shall bear and pay all of the cost and expense of such relocation, reconstruction, and/or repair of, and all damage done to any and all such pipe line

and other structures, improvements, and installations, including service connections, if any, to adjacent property, existing at the date of the execution of the contract and/or existing, during the period of the Work to be done under the contract, which may be interfered with, damaged, and/or necessarily relocated, reconstructed, or repaired in the performance of the Work herein provided for, including the restoration and resurfacing of unpaved portions of public streets and alleys, rights-of-way, easements, and private property damaged or disturbed by the Work, the same to be restored to as good condition as the same existed at the time of the commencement of any such Work or relocation.

It is further agreed that the owners of any structures, improvements, installations, referred to in the preceding paragraph shall have the right to do the Work or any part thereof necessary for the relocation, reconstruction, replacement, repair, and other Work required by reason of any interference with and/or damage to such structures, improvements, installations, due to the prosecution of the Work and upon completion of such Work by them done, said owners may render bills to the Bidder for the cost and expenses thereof which bills shall be paid by the Bidder without extra compensation therefore from the City, upon demand by said owners, or upon demand made by the City upon the Bidder for the payment thereof.

2.25. RESPONSIBLE BIDDER

Section 2-331(5) of the Aurora City Code requires that bidders for city contracts in excess of $25,000 must participate in active apprenticeship and training programs approved and registered with the United States Department of Labor's Bureau of Apprenticeship and Training to be considered a responsible bidder. A bidder must affirm such participation in the Bidder's Certification submitted with any bid. Furthermore, **the bidder must submit a copy of each applicable program registration certificate with his/her bid**.

2.26. SUBLETTING OR ASSIGNMENT OF WORK

If the Bidder sublets the whole or any part of the Work to be done under the contract, with or without the written consent of the City, he shall not, under any circumstances, be relieved of his liabilities and obligations. All transactions of the City shall be with the Bidder; subcontractors shall be recognized only in the capacity of employees or workmen and shall be subject to the same requirements as to character and competence. In case any party or parties, to whom any work under the contract shall have been sublet, shall disregard the directions of the City or his duly authorized representatives, or shall furnish any unsatisfactory Work or shall fail or refuse in any way to conform to any of the provisions or conditions of the contract, then in that case, upon the written order of the City, the Bidder shall require said party or parties in default to discontinue Work under the contract. Said Work shall be corrected or made good and shall be continued and completed by the said Bidder or by such other party or parties as are approved by the City, in the manner and subject to all of the requirements specified in the contract.

2.27. GUARANTEE AND MAINTENANCE OF WORK

The Bidder shall guarantee the Work to be free from defects of any nature for a period of one year from and after the final acceptance and payment for the Work by the City, and the Bidder shall maintain said Work and shall make all needed repairs and/or replacements during this one year period which in the judgment of the Council, may be necessary to insure the delivery of the Work to the City in first-class condition and in full conformity with the plans and specifications therefore, at the expiration of the guarantee period.

2.28. CONTRACT

The successful Bidder will be required to execute a contract in the form attached hereto (as may be modified and amended by the City) within five (5) days after notice of award and receipt of the contract from the City and sign and deliver to the City all required copies of the contract. Failure on the part of the Bidder to execute the contract within five (5) days and provide the required evidence of insurance at, or before the execution of the contract, will be considered just cause for the annulment of the award of the Bid.

3. CITY OF AURORA GENERAL SPECIFICATIONS

3.1. SECTION 1 - DEFINITION OF TERMS

1.1 ADVERTISEMENT

The word Advertisement shall mean and refer to the official notice as published in the City of Aurora, Illinois, electronic bidding platform inviting bids for the construction of this improvement.

1.2 A.S.T.M.

Wherever the letters A.S.T.M. are herein used, they shall be understood to mean the American Society of Testing Materials.

1.3 ATTORNEY

Wherever the word Attorney is used in these specifications or in the contract, it shall be understood to mean the Corporation Counsel of the City or designee.

1.4 BIDDER

Wherever the word Bidder is used, it shall be understood to mean the individual, firm, or corporation formally submitting a proposal for the work contemplated, or any portion thereof, acting directly or through an authorized representative.

1.5 BOARD

Wherever the word Board or a pronoun in the place of it occurs in these specifications, it shall be interpreted to mean the Board of Local Improvements of the City of Aurora, Illinois, and any of its authorized representatives provided, however, that such persons shall be understood to represent said Board to the extent of the special duties delegated to such representatives.

1.6 CITY CLERK

Wherever the term City Clerk is used herein, it shall be understood to mean the City Clerk of the City of Aurora, Illinois.

1.7 CITY COUNCIL OR COUNCIL

Wherever the term City Council, or Council, appears in these specifications it shall be taken to mean the City Council of the City of Aurora, Illinois.

1.8 CONTRACT

The term Contract shall be understood to mean the agreement covering the performance of the work covered by these general specifications, including the advertisement for bids, instructions to bidders, bid proposal, performance bond, these general specifications, supplemental specifications, special provisions, general and detailed Plans for the work, standard specifications referred to in the special provisions, all supplemental agreements entered into and all general provisions pertaining to the work or materials thereof, all of which are collectively referred to as the “Contract Documents”.

1.9 CONTRACTOR

Wherever the word Contractor occurs in these specifications, it shall be interpreted to mean the person or persons, firm, or corporation who submits a proposal and thereafter enters into the contract governed by these specifications as party or parties of the second part, and the agents, employees, workmen, heirs, executors, administrators, successors, or assignees thereof.

1.10 ENGINEER

Wherever the word Engineer is used in these specifications, it shall be interpreted to mean the City Engineer or his designee charged with directing and having charge of a portion of the project limited by the particular duties entrusted to him.

1.11 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

The MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, latest edition, as adopted by the United States Department of Transportation Federal Highway Administration.

1.12 PAYMENT BOND

The term Payment Bond shall be understood to mean the bond executed by the Contractor and his surety guaranteeing the payment of all sums of money due for any labor, materials, apparatus, fixtures, or machinery furnished to such principal for the purpose of performing the contract work.

1.13 PERFORMANCE BOND

The term Performance Bond shall be understood to mean the bond, executed by the Contractor and his surety, guaranteeing complete execution of the contract.

1.14 PLANS

Wherever the word Plans is used in these specifications, it shall be understood to mean all drawings, sketches, and detailed Plans or reproductions thereof pertaining to the construction involved.

1.15 PROPOSAL

Wherever the word Proposal is used, it shall be taken to mean the written proposal of the bidder on the form furnished for the work contemplated.

1.16 PROPOSAL GUARANTY

The term Proposal Guaranty shall be understood to mean the security designated in the Advertisement for Bids or Notice to Contractors to be furnished by the bidder as a guaranty of good faith to enter into a contract for the work contemplated

1.17 SPECIFICATIONS

Wherever the word Specifications is used it shall be understood to include all directions and requirements contained herein or referred to hereby, together with all special provisions and written agreements made or to be made pertaining to the work involved. All articles referred to in these general specifications when not qualified otherwise than by numbers, shall be understood to be articles from these general specifications.

1.18 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

The STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, latest edition, prepared by the Illinois Department of Transportation and adopted by said Department.

1.19 STANDARD SPECIFICATIONS FOR SEWER AND WATER MAIN CONSTRUCTION

The STANDARD SPECIFICATIONS FOR SEWER AND WATER MAIN CONSTRUCTION, latest edition, as adopted by the Illinois Society of Professional Engineers.

1.20 STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS

The STANDARD TRAFFIC SIGNAL SPECIFICATIONS, latest edition, as adopted by the Illinois Department of Transportation.

1.21 STATE

Wherever the word State is used herein, it shall mean the State of Illinois.

1.22 SURETY

The word Surety shall be understood to mean the individuals who are, or the corporate body which is bound with and for the Contractor for the acceptable performance of the contract, and for his payment of all debts pertaining to the work.

1.23 WORK

Wherever the word “Work” is used, it shall mean the work including all materials, labor, tools, appliances, equipment, and appurtenance necessary and incidental thereto to perform and complete everything specified or implied in the Plans, specifications, and in the contract documents, in full compliance with all the terms and conditions thereof and in a good and workmanlike manner.

3.2. SECTION 2: AWARD AND EXECUTION OF CONTRACT

2.1 AWARD OF CONTRACT

The decision of the award of the contract will be made as may be decided upon by the Council after bids have been opened and tabulated. The Contract shall be governed by the laws of the State of Illinois. No contract shall provide for arbitration of the parties.

2.2 FAILURE TO EXECUTE CONTRACT

In the event that said bidder fails or refuses to execute said contract and furnish said bonds within the period of five (5) days after mailing notice of such award or within such additional number of days as the City may determine, then the sum deposited as a proposal guaranty by said bidder on the work so awarded may be retained by the City as liquidated damages and not a forfeiture. It is hereby agreed that said sum is a fair estimate of the amount of damages that the City will sustain in case said bidder fails to enter into the contract and furnish bonds as herein provided, said actual damages being uncertain in amount and difficult to determine in the event of such failure or refusal by the bidder.

2.3 VENUE FOR LEGAL ACTION

The venue for any legal action that may arise from this agreement shall be in Kane County, Illinois.

2.4 WAIVER OF TRIAL BY JURY

The Contractor agrees to waive trial by jury for itself and all of its contracts with sub-Contractors shall contain a provision waiving trial by jury in the event of any legal action which may arise from this agreement with the City of Aurora as a party litigant.

3.3. SECTION 3: SCOPE OF THE WORK

3.1 INTENT OF PLANS AND SPECIFICATIONS

The true intent of the Plans and these specifications is to provide for the erection and completion in every detail of the work described herein, and it is understood that the Contractor will furnish all labor, materials, equipment, tools, transportation, and necessary supplies, such as may reasonably be required to execute the contract in a satisfactory and workmanlike manner and in accordance with the Plans, specifications, and terms of the contract. Both parties must stipulate any deviation from these requirements in writing.

3.2 SPECIAL WORK

Should any construction conditions which are not covered by the Plans and these specifications be anticipated or encountered during construction, Supplemental Specifications for such work will be prepared by the Engineer and shall be considered a part of these specifications, the same as though contained fully herein.

3.3 INCREASED OR DECREASED QUANTITIES

The right is reserved, without impairing the contract, to make such increase or decrease in the quantities of the work as may be considered necessary to complete fully and satisfactorily the work included in the contract. The compensation to the Contractor for such changes shall be adjusted as provided herein.

3.4 ALTERATIONS IN PLANS AND SPECIFICATIONS

The City reserves the right to make such changes in the Plans and in the character of the work as may be necessary or desirable to ensure completion in the most satisfactory manner, provided such changes do not materially alter the original Plans and specifications. Such changes shall not be considered as waiving or invalidating any conditions or provisions of the contract.

3.5 EXTRA WORK

The City reserves the right, without impairing the contract, to order the performance of such work, of a class not contemplated in the proposal as may be considered necessary to complete fully and satisfactorily the work included in the contract. The Contractor shall do such extra work when ordered and authorized in writing by the Engineer, and the Contractor shall be compensated for such extra work on the basis and in the amount as provided herein.

3.6 EASEMENTS, PERMITS, AND REGULATIONS

The Contractor shall keep himself fully informed of all Federal, State, Municipal and local regulations, private contracts, grants, easements, and permits, in any manner affecting the work herein specified and provided for. He shall at all times observe and comply with and cause all his Subcontractors, agents, and employees to observe and comply with each and all of the same. The Contractor does hereby assume any and all liability under the same and shall protect and indemnify the City and its officers and employees against any and all claims or liabilities arising from or based on the violation of, or failure to comply with either or all of the same.

3.7 FINAL CLEANING UP

Upon completion and before final acceptance of the work, the Contractor shall, in addition to the detailed work of grading, restoring ground surfaces, repairing roadways and pavements, and all other work specifically provided for in these specifications, remove all falsework, excess or useless excavated materials, rejected materials, rubbish, temporary buildings, temporary foundations, replace or renew any fences damaged, and restore in an acceptable manner all property, both public and private, which may have been damaged during the prosecution of the work, and shall leave the site of the work in a neat and presentable condition satisfactory to the Engineer.

3.4. SECTION 4: CONTROL OF THE WORK

4.1 AUTHORITY OF THE ENGINEER

The Engineer shall decide any and all questions which may arise as to the quality and acceptability of materials furnished and work performed, and as to the manner of performance and rate of progress of the work, and shall decide all questions which may arise as to the interpretation of the Plans and specifications, and all questions as to the acceptable fulfillment of the terms of the contract.

4.2 PLANS AND WORKING DRAWINGS

General drawings, showing such details as are necessary to give a comprehensive idea of the construction contemplated, will be shown in the general Plans, but the Contractor shall submit to the Engineer for approval such additional detailed shop drawings or working drawings, together with a detailed structural analysis of all component parts, as may be required for the construction of any part of the work and prior to the approval of such Plans, any work done or material ordered shall be at the Contractor's risk.

The contract price shall include the cost of furnishing all working drawings and the Contractor will be allowed no extra compensation for such drawings.

4.3 DEVIATIONS FROM THE PLANS

No deviation from the general Plans or the approved working drawings will be permitted without the written order of the Engineer. No allowance shall be made for work done other than is shown on the Plans, profiles and drawings, and provided for in the specifications.

4.4 COORDINATION OF SPECIFICATIONS AND PLANS

In the event of any discrepancy between the Plans and figures written thereon, the figures are to be considered as correct. In the case of any discrepancy between the Plans and the specifications, the Engineer shall determine which are to govern. If there is a discrepancy between the general specifications and the supplemental specifications, the supplemental specifications are to govern.

The Contractor shall take no advantage of any apparent error or omission in the Plans or specifications, but the Engineer shall be permitted to make such corrections and interpretations as may be deemed necessary for the fulfillment of the intent of the Plans and specifications.

4.5 ORDER OF WORK

The order of sequence of the execution and/or conduct of the work shall be subject to the approval and/or direction of the Engineer, which approval and/or direction shall not in any way relieve the Contractor of any responsibility in connection with the prosecution to completion of the work under contract.

4.6 COOPERATION BY CONTRACTOR

The Contractor shall conduct his operation so as to interfere as little as possible with those of other Contractors, Subcontractors, the public, or adjoining property owners on or near the work site. The Contractor shall at all times during his absence from the work site have a competent superintendent or foreman capable of reading and thoroughly understanding the Plans and specifications, as his agent on the work, who shall receive instructions from the Engineer or his authorized representative. The superintendent or foreman shall have full authority to execute the order and/or directions of the Engineer without delay and to promptly supply such materials, tools, plant equipment, and labor as may be required. The superintendent or foreman shall have a copy of the Plans and specifications on the job at all time.

4.7 CONSTRUCTION STAKES

Reference lines and grade points for the location, alignment, and elevation of each structure will be determined and established by the Engineer, but the Contractor shall assume full responsibility for the alignment, elevations, and dimensions of each and all parts of the work with reference to the lines, points, and grades as established by the Engineer. For all structures, the Engineer shall furnish the Contractor with centerline and/or center points and such benchmarks or other points as are necessary to lay out the work correctly. The Contractor shall check all lines, points, and grades which may be given by the Engineer supplementary to the centerline, points, and control bench marks aforesaid, and shall be responsible for the accuracy of all measurements for grades and alignment of the work with reference to the centerline and/or points and bench marks established by the Engineer.

The Contractor shall exercise proper care in the preservation of alignment, grade, and reference stakes set for his use, or that of the Engineer. If such stakes are injured, lost, or removed by the Contractor's operations, they shall be reset at his expense.

4.8 INSPECTION

The Engineer or his representative shall be allowed access to all parts of the work at all times and shall be furnished such information and assistance by the Contractor as may be required to make a complete and detailed inspection thereof. Such inspection may include mill, plant, or shop inspection and any material furnished under these specifications is subject to such inspection.

3.5. SECTION 5: CONTROL OF MATERIALS

5.1 SPECIFICATIONS FOR MATERIALS

All materials used in this work shall conform in all respects to the specifications therefore as herein set forth. Where a specification for material to be used in this work is not specifically set forth in these specifications, such material shall conform in all respects to the specifications as set forth in the A.S.T.M. Standards and/or Tentative Standards adopted and in effect on the date of receiving bids.

5.2 SUBSTITUTION OF MATERIALS AND EQUIPMENT

Wherever in these specifications or on the Plans for this work, materials or equipment are specified by trade names or catalog numbers of certain manufacturers, it is done for the purpose of establishing a standard of quality, durability, and/or efficiency, and not for any purpose of limiting competition. Wherever such definite reference is made in these specifications to any such material or equipment, is understood that any equivalent material or equipment may be provided, however, that the written approval and acceptance of the Engineer of such equivalent material or equipment must be obtained prior to its purchase and/or incorporation in any part of the work.

5.3 THE METHODS OF TESTING

All tests of materials or equipment used in the work shall be made in accordance with the methods described in these specifications or the method of test prescribed in any specification for material or equipment herein specifically referred to and designated to govern the quality of any material or equipment.

Where a method of test for any material or equipment is not specifically provided for, such material or equipment shall be tested in accordance with the methods prescribed and set forth in the A.S.T.M. Standards and Tentative Standards adopted and in effect on the date of receiving bids.

5.4 DEFECTIVE MATERIALS

All materials not conforming to the requirements of these specifications shall be considered as defective and all such materials, whether in place or not, shall be rejected and shall be removed immediately from the work by the Contractor at his expense unless otherwise permitted by the Engineer. No rejected materials, the defects of which have been subsequently corrected, shall be used until approval has been given. Upon failure on the part of the Contractor to immediately comply with any order of the Engineer relative to the provisions of this section, the Engineer shall have the authority to remove and replace such defective material and to deduct the cost of removal and replacement from any moneys due or which may become due to the Contractor.

3.6. SECTION 6: LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

6.1 BARRICADES, LIGHTS, AND SIGNS

The Contractor shall at his own expense and without further or other order provide, erect, and maintain at all times during the progress or suspension of the work, suitable barricades, fences, signs, or other adequate protection, and shall provide, keep, and maintain such lights, danger signals, and watchmen as may be necessary or as may be ordered by the Engineer to ensure the safety of the public, as well as those engaged in connection with the work. All barricades and obstructions shall be protected at night by signal lights, which shall be suitably placed and which shall be kept burning from sunset to sunrise. Barricades shall be of substantial construction, and shall be painted in such a way as to increase their visibility at night.

The Contractor shall be held responsible for all damage to the work due to failure of barricades, signs, lights, and watchmen to protect it, and whenever evidence of such damage is found prior to acceptance, the Engineer may order such damaged portion immediately removed and replaced by the Contractor without cost to the City if, in his opinion, such action is justified. The Contractor's responsibility for the maintenance of barricades, signs, and lights shall not cease until the project shall have been accepted.

6.2 USE OF EXPLOSIVES

The use of explosives shall be prohibited.

6.3 PROTECTION AND RESTORATION OF PROPERTY

It is understood that in the execution of the work herein provided for there may be interference with and/or damage to trees, shrubbery, crops, fences, railroad tracks, overhead structures such as poles, wires, cables, underground structures such as sewers, gas mains, telephone conduits and cables, water mains, drains, service connections, wires, pipes, conduits, located along, adjacent to, and/or crossing the locations of the work, and that it may be necessary to relocate or reconstruct certain of such structures, improvements, and installations and/or to make repairs to the same by reasons of doing the work herein provided for, and it is therefore particularly and specifically agreed that the Contractor, except as otherwise herein provided, shall do the work necessary for such relocation, reconstruction, and repair and shall bear and pay all of the cost and expense of such relocation, reconstruction, and/or repair of, and all damage done to any and all such pipe line and other structures, improvements, and installations, including service connections, if any, to adjacent property, existing at the date of the execution of the contract and/or existing, during the period of the work to be done under the contract, which may be interfered with, damaged, and/or necessarily relocated, reconstructed, or repaired in the performance of the work herein provided for, including the restoration and resurfacing of unpaved portions of public streets and alleys, rights-of-way, easements, and private property damaged or disturbed by the work, the same to be restored to as good condition as the same existed at the time of the commencement of any such work or relocation.

It is further agreed that the owners of any structures, improvements, installations, referred to in the preceding paragraph shall have the right to do the work or any part thereof necessary for the relocation, reconstruction, replacement, repair, and other work required by reason of any interference with and/or damage to such structures, improvements, installations, due to the prosecution of the work and upon completion of such work by them done, said owners may render bills to the Contractor for the cost and expense thereof, which bills shall be paid by the Contractor, without extra compensation therefore from the City, upon demand by said owners, or upon demand made by the City upon the Contractor for the payment thereof.

6.4 RESPONSIBILITY FOR DAMAGE CLAIMS

To the fullest extent permitted by law, the Contractor agrees to indemnify and save harmless the City of Aurora, their elected officials, agents, employees, and volunteers from and against all loss and expenses (including costs and attorneys' fees) by reason of liability imposed by law or claims made upon the City of Aurora for damages because of bodily injury, including death at any time resulting therefrom sustained by any person or persons or on account of damage to property, including loss of use thereof, arising out of or in consequence of the performance of this work, whether such claims or injuries to persons or damage to property be due to the negligence of the Contractor, his Subcontractors or the City of Aurora.

The Contractor shall assume total risk and shall be responsible for any and all damages or losses caused by or in any way resulting from the work and provide all insurance necessary to protect and save harmless the City of Aurora and its employees. Said insurance shall include contractual liability equal to the limits hereinafter set forth.

The Contractor agrees to purchase a policy of insurance, which shall include the City of Aurora as an additional insured or provide separate coverage for the City with an owner's protective policy. All Insurance provided by Contractor, extending to owner as additional insurance, shall be primary and insurance maintained by owner shall be excess and not contributing with Contractor's insurance. The minimum amounts of insurance shall be as follows, except that no restrictions on occurrence limits will be permitted:

Bodily Injury Liability	Property Damage Liability	
Each Occurrence	Each Occurrence	Aggregate
$3,500,000	$500,000	$7,000,000

The coverage and amounts above are minimum requirements and do not establish limits to the Contractor's liability. Other coverage and higher limits may be provided at the Contractor's option and expense.

Owner does not waive its subrogation rights against Contractor and/or any Subcontractor for damages due to losses to owner due to the fault or negligence of the Contractor and/or any Subcontractors during or as a result of the performance of the work.

All such insurance must include an endorsement whereby the insurer agrees to notify the City of Aurora at least thirty (30) days prior to non-renewal, reduction or cancellation. The Contractor shall cease operations on the project if the insurance is canceled or reduced below the required amount of coverage. All costs for insurance as specified herein will not be paid for separately, but shall be considered as incidental to the contract.

6.5 WORKERS COMPENSATION ACT

The Contractor further agrees to insure his employees and their beneficiaries and to provide the employees and the beneficiaries of any Subcontractor employed from time to time by him on said work, the necessary first-aid, medical, surgical, and hospital services and any compensation provided for in the Workers Compensation Act of the State of Illinois that is or may be in force in the State.

Such insurance shall be placed by said Contractor in a company or association (to be approved by the City and to be accepted by the Council thereof) authorized under the laws of the State of Illinois to insure the liability above specified.

Said Contractor hereby further agrees to indemnify, keep and save harmless said City from all action, proceedings, claims, judgments, awards, and costs, losses, damages, expenses, and attorney's fees which may in any way be brought against said City by reason of any accidental injuries or death suffered by any of his employees or the employees of any Subcontractor employed by him in and about the performance of the work provided for in the contract, and any and all liability resulting thereupon; and said Contractor, in case of any suit, action, or proceeding on account of any or all of the foregoing shall defend the same for and on behalf of said City and indemnify the City therefore and pay the amount of any and all awards and final judgments and/orders rendered and entered therein, together with all loss, costs, damages, attorney's fees, and expenses incurred therein. Said Contractor shall be the sole employer of its employees and workers, and in no way so shall the City be considered a joint employer of same under any circumstance.

3.7. SECTION 7: PROSECUTION AND PROGRESS OF WORK

7.1 SUBLETTING OR ASSIGNMENT OF WORK

If the Contractor sublets the whole or any part of the work to be done under the contract, with or without the written consent of the City, he shall not, under any circumstances, be relieved of his liabilities and obligations. All transactions of the Engineer shall be with the Contractor; Subcontractors shall be recognized only in the capacity of employees or workmen and shall be subject to the same requirements as to character and competence. In case any party or parties, to whom any work under the contract shall have been sublet, shall disregard the directions of the Engineer or his duly authorized representatives, or shall furnish any unsatisfactory work or shall fail or refuse in any way to conform to any of the provisions or conditions of the contract, then in that case, upon the written order of the Engineer, the Contractor shall require said party or parties in default to discontinue work under the contract. Said work shall be corrected or made good and shall be continued and completed by the said Contractor or by such other party or parties as are approved by the Engineer, in the manner and subject to all of the requirements specified in the contract.

7.2 PROSECUTION OF WORK

The Contractor shall begin the work to be performed under the contract no later than ten (10) days after the execution and acceptance of the contract, unless otherwise provided. The work shall be conducted in such a manner and with sufficient materials, equipment and labor as is considered necessary to ensure its completion within the time specified in the contract. The Contractor shall solely be fully responsible for complying with state and local prevailing wage requirements in accordance with its Bidders Certification, and for all wage rate and hour regulations and applications

7.3 PAYMENT

BASIS OF PAYMENT

Payment of the CONTRACTOR for performance of the CONTRACT shall be made by the OWNER and shall be based on the value of the installation resulting from the CONTRACTOR's operations.

The cost of all WORK incidental to the completion of the project in accordance with the Plans and Specifications, excepting authorized extra WORK, shall be included in the unit and lump sum prices stated in the CONTRACTOR's accepted Proposal. The amount obtained by the summation of the products of the quantities of WORK performed or the respective unit or lump sum prices for several items listed in the proposal shall be payment in full, except for payment for authorized extra WORK, for delivering the completed project to the OWNER in accordance with the Plans and Specifications.

SUBMISSION OF BID BREAKDOWN

Within 10 days after the execution of this CONTRACT, the CONTRACTOR must submit to the ENGINEER in duplicate an acceptable breakdown of the lump sums and unit prices bid for items of the CONTRACT, showing the various operations to be performed under the CONTRACT, and the value of each of such operations, the total of such items to equal the total price bid. The CONTRACTOR shall also submit such other information relating to the bid prices as may be required and shall revise the bid breakdown as directed. Thereafter, the breakdown may be used for checking the CONTRACTOR's applications for partial payments hereunder but shall not be binding upon the OWNER or the ENGINEER for any purpose whatsoever.

PARTIAL PAYMENTS

When not otherwise provided for under the Specifications for an item of WORK or a complete project, and if the rate of progress is satisfactory to the ENGINEER, partial payments will be made the CONTRACTOR by the OWNER during progress of construction. The amount of each partial payment shall be limited to ninety (90) percent (unless otherwise provided in the Instructions to Bidders) of the value of the WORK shown in the Engineer's periodic estimate to have been done and installed in place by the CONTRACTOR subsequent to the time of commencing WORK or of making the last preceding partial payment on account of WORK done. An amount greater than ninety (90) percent of the value of a largely completed project may be paid the CONTRACTOR at the option of the OWNER.

The CONTRACTOR's request for payment shall be in the form of an invoice, submitted to the OWNER through the ENGINEER, setting forth amounts due for WORK completed on payment items set forth in the CONTRACTOR's Proposal, and shall be accompanied by:

1. CONTRACTOR's Sworn Statement setting forth the Subcontractors and material suppliers, the amount requested for each of the Subcontractors or material suppliers, and the amount of the subcontract or material to be completed.
2. Subcontractor or material suppliers waivers of lien for amounts requested on previous payment requests.
3. CONTRACTOR's waivers of lien.

The CONTRACTOR's request will be reviewed by the ENGINEER and if the ENGINEER is in agreement with the value of WORK completed, as requested by the CONTRACTOR, and if the request is accompanied by the CONTRACTOR's Sworn Statement, Subcontractor and material suppliers waiver of lien as stated above, and by the CONTRACTOR's waiver of lien, the ENGINEER will recommend payment to the OWNER.

Partial payment made to the CONTRACTOR by the OWNER for WORK performed shall in no way constitute an acknowledgement of the acceptance of the WORK nor in any way prejudice or affect the obligation of the CONTRACTOR, at his expense, to repair, correct, renew or replace any defects or imperfections in the construction of the WORK under CONTRACT and its appurtenances, nor any damage due or attributable to such defect, damage and the CONTRACTOR shall be liable to the OWNER for failure to correct the same as provided herein.

Payment in full or in part may be withheld for reasons which include but are not limited to: (1) the existence of defective work which is not remedied; (2) the existence of third party claims filed or reasonable evidence indicating probable filing of such claims; (3) the failure of the CONTRACTOR to make payments properly to Subcontractors or for labor, materials or equipment; (4) the existence of reasonable evidence that the WORK cannot be completed for the unpaid balance of the contract sum; (5) damage to the OWNER; (6) the existence of reasonable evidence that the WORK will not be completed within the CONTRACT time, and that the unpaid balance will not be adequate to cover actual or liquidated damages for the anticipated delay; or, (7) persistent failure to carry out the work in accordance with the contract documents. If within a reasonable time not to exceed 45 days CONTRACTOR has not remedied any condition for which payment in full has been withheld, then OWNER may make such payments as OWNER deems necessary to remedy such situation from said funds withheld and pay the balance to CONTRACTOR, or if, sums are still due to remedy the situation, CONTRACTOR will remit any balances due to OWNER within 10 days of notice of same.

ACCEPTANCE AND FINAL PAYMENT

Whenever the CONTRACT shall have been completely performed on the part of the CONTRACTOR, and all parts of the WORK have been approved by the ENGINEER and accepted by the OWNER, including the resolution of all matters of dispute, a final estimate showing the value of the WORK will be prepared by the ENGINEER as soon as the necessary measurements and computations can be made, all prior estimates upon which payments have been made being approximate only and subject to corrections in the final payments.

The CONTRACTOR shall submit a final payment request showing the total quantities completed for the entire project and all previous payouts. This payment request shall be accompanied by a sworn affidavit listing all Subcontractors and material suppliers and the total payments to each. Final Waivers of Lien from the Subcontractors and material suppliers as well as the CONTRACTOR shall also be furnished at this time.

A final payment including all amounts of money shown by the final estimate to be due the CONTRACTOR shall be made by the OWNER as soon as practicable after the final acceptance of the WORK, provided the CONTRACTOR has furnished the OWNER satisfactory evidence that all sums of money due for labor, materials, apparatus, fixtures or machinery furnished for the purpose of performing the Contract have been paid or that the person or persons to whom the same may respectively be due have consented to such final payment.

4. SPECIAL PROVISION FOR EMPLOYMENT PRACTICES

4.1. State of Illinois DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION FOR EMPLOYMENT PRACTICES

In addition to all other labor requirements set forth in this proposal and in the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation, 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:

I. SELECTION OF LABOR

The Contractor shall comply with all Illinois statutes pertaining to the selection of labor.

II. EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this contract, the Contractor agrees as follows:

(1) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge from military service, and further that it will examine all job, classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such under-utilization.

(2) That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.

(3) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge from military service.

(4) That it will send to each labor organization or representative of other workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and the City of Aurora and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

(5) That it will submit reports as required by the Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the City of Aurora, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.

(6) That it will permit access to all relevant books, records, accounts and work sites by personnel of the City of Aurora and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.

(7) That it will include verbatim or by reference the provisions of this clause in every subcontract so that such provisions will be binding upon every such Subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by all its Subcontractors; and further it will promptly notify the City of Aurora and the Illinois Department of Human Rights in the event any Subcontractor fails or refuses

to comply therewith. In addition, the Contractor will not utilize any Subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

4.2. State of Illinois DEPARTMENT OF TRANSPORTATION Bureau of Local Roads & Streets SPECIAL PROVISION FOR WAGES OF EMPLOYEES ON PUBLIC WORKS

Effective: January 1, 1999

Revised: January 1, 2015

1. Prevailing Wages. All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Illinois Department of Labor publishes the prevailing wage rates on its website at www.state.il.us/agency/idol/rates/rates.htm. If the Illinois Department of Labor revises the prevailing wage rates, the revised prevailing wage rates on the Illinois Department of Labor's website shall apply to this contract and the Contractor will not be allowed additional compensation on account of said revisions. The Contractor shall review the wage rates applicable to the work of the contract at regular intervals in order to ensure the timely payment of current wage rates. The Contractor agrees that no additional notice is required. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto.

2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of not less than five years from the date of the last payment on a contract or subcontract, records of all laborers, mechanics, and other workers employed by them on the project; the records shall include each worker's employed by them on the project; the records shall include information required by 820 ILCS 130/5 for each worker. Upon seven business days' notice, the Contractor and each subcontractor shall make available for inspection and copying at a location within this State during reasonable hours, the payroll records to the public body in charge of the project, its officers and agents, the Director of Labor and his deputies and agents, and to federal, State, or local law enforcement agencies and prosecutors.

3. Submission of Payroll Records. The Contractor and each subcontractor shall ,no later than the 15th day of each calendar month, file a certified payroll for the immediately preceding month with the public body in charge of the project, except that the full social security number and home address shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). The certified payroll shall consist of a complete copy of the payroll records except starting and ending times of work each day may be omitted

The certified payroll shall be accompanied by a statement signed by the Contractor or subcontractor or an officer, employee, or agent of the contractor or subcontractor which avers that: (i) he or she has examined the certified payroll records required to be submitted by the Act and such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required; and (iii) the Contractor or subcontractor is aware that filing a certified payroll that he or she knows to be false is a Class A misdemeanor.

4. Employees Interviews. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor.

5. SCOPE OF WORK

5.1. INDEX TO SPECIAL PROVISIONS

Provision Number **Title**

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SP A.2 – ITEMS ORDERED BY ENGINEER

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SP A.4 – PUBLIC SAFETY AND CONVENIENCE

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SP A.6 – PERFORMANCE GUARANTEE OF WORK

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5.2. SPECIAL PROVISIONS - Administration

Revised 01/2026

The following Special Provisions supplement the Instruction to Bidders, the City of Aurora General Specifications, the Illinois Department of Transportation's Standard Specifications For Road and Bridge Construction (herein after called the Standard Specifications), the City of Aurora's Standard Specifications for Improvements, the Supplemental Specifications and Recurring Special Provisions, the Standard Specifications for Water And Sewer Main Construction in Illinois, Seventh Edition, the Standard Specifications for Traffic Control Items, Part 890 of the Illinois Plumbing Code (77 IL Admin Code 890.1150) and the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways and the Illinois Supplement to the National Manual on Uniform Traffic Control Devices in effect on the date of invitation for proposals. These special provisions apply to and govern the proposed improvement designated as the **Hazel CSO Sewer Separation, Sanitary Extension, and Water Main Improvements** and in case of conflict with any part or parts of said specifications; these Special Provisions shall take precedence and shall govern.

SUMMARY OF 2026 MAJOR SPECIAL PROVISION REVISIONS:

- **WORKING DAY AND HOURS**
- **STORM MANHOLES**
- **CATCH BASINS**
- **STORM INFILTRATION CATCH BASINS**
- **INLETS**
- **CURED IN PLACE PIPE SEWER LINING**
- **SANITARY MANHOLES**
- **CHIMNEY REHABILITATION, NON-PAVEMENT**
- **RESET EXISTING FRAME**
- **MANHOLE RECONSTRUCTION, NON-PAVEMENT**
- **CCTV SEWER INSPECTION**
- **BYPASS PUMPING**
- **WATER SERVICE/WATER SERVICE RELOCATION**
- **VALVE IN VALVE VAULTS**
- **INSERTION VALVE**
- **PCC GUTTER AND PCC CURB AND GUTTER**

SP A.1 – ALTERATIONS TO PROJECT BY ENGINEER

The Engineer reserves the right to alter the Plans and details, extend or shorten the improvement, add such work as deemed necessary, increase or decrease the quantities of work to be performed, and/or eliminate entire pay items all in accordance with Section 104 of the Standard Specifications, except that the Contractor shall not be entitled to additional compensation or lost profits in the event that quantities are reduced below the original contract quantities, or in the event pay items are deleted entirely.

SP A.2 – ITEMS ORDERED BY ENGINEER

When additional work not included in the Contract, is requested in writing by the Engineer, this additional work shall be measured and paid for in accordance with Sections 104 and 109 of the IDOT Standard Specifications, as modified by these special provisions.

Payment for all additional work ordered by the Engineer in writing, which is deemed by the Engineer to be eligible for payment and is not covered by the Contract, shall be made from the allowance included in the contract under ITEMS ORDERED BY ENGINEER. The Contractor shall not be entitled to any additional compensation in the event that utilization of this allowance, either in whole or in part, is not required to complete the work.

SP A.3 – RESPONSIBILITY OF WORK

During the progress of the work the Contractor shall assume total risk and liability, and will be responsible for any and all damages to the work, or to persons, or to public or private property caused by, or in any way resulting from doing the work, including actions of Subcontractors or Material Suppliers.

SP A.4 – PUBLIC SAFETY AND CONVENIENCE

The Contractor shall maintain driveways, entrances, and side roads along the proposed improvement to allow emergency and local vehicle access to all adjacent properties. This access should not allow the passage of non-local vehicular traffic, which should abide by the approved traffic control plan. Interference with traffic movements and inconvenience to abutting property owners and the public shall be kept to a minimum. The Contractor shall also keep the sidewalk and curb ramps clear of debris and equipment whenever possible. The Contractor shall maintain at least one lane open to traffic at all times for emergency vehicles on all streets affected by the construction of these improvements. Adequate use of flaggers and other traffic control devices shall be used to permit such arrangements during working hours. The Contractor shall remove and reinstall all street signs/posts in conflict with the proposed improvements and the Contractor will be responsible for the replacement of signs/posts damaged during this process. All signage required for the proper control of traffic (i.e.: stop signs, yield signs, etc.) must be maintained on a temporary basis until the permanent sign can be reinstalled. **If the project is located in a business district, then business open signs provided by the Contractor shall be posted and maintained during construction.**

This work shall not be paid for separately but shall be considered incidental to TRAFFIC CONTROL AND PROTECTION.

SP A.5 – COMPLETION DATE

The Contractor agrees to execute a Contract and a contract bond satisfactory to and in the form prescribed by the City in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract within **fifteen (15)** days after Notice of Award of the Contract.

The Contractor further agrees to begin work no later than **ten (10)** calendar days after the execution and approval of the contract and Contract bond, unless otherwise provided, and to prosecute the work in such a manner and with sufficient materials, equipment, and labor as will ensure its completion within the time limit specified herein, it being understood and agreed that the completion within the time limit is an essential part of the Contract.

The Contractor shall schedule their construction operations in such a manner so as to meet the following completion deadlines:

- **Obtain Substantial completion of the entire project within 10/31/2026.**
- **Obtain Final completion of the entire project within 11/25/2026.**

Substantially complete shall mean the completion of all work except for the installation of the final HMA surface and minor punch list items.

Final completion shall be obtained when all the work in all respects has been completed; including the final HMA surface course, punch list work, and landscaping.

Special attention is called to Article 108.10 of the Standard Specifications for Road and Bridge Construction and shall be strictly adhered to in the event the Contractor fails to complete the project by the above-mentioned guidelines. Liquidated damages shall be assessed per **Working Day** for failure to meet the above deadlines.

The Contractor shall not discontinue progress towards the completion of the work until "Final Completion" has been obtained. This provision will be strictly enforced whether or not the abovementioned completion deadlines are being met. The Contractor shall be assessed liquidated damages for every working day that work is not being performed on the project.

Underground utilities shall not be installed between October 31st and April 1st of the following year if directed by the Engineer.

Deadline extensions shall not affect the underground utility shutdown dates. Underground work to be performed after October 31st shall be postponed until April 1st of the following year. Restoration pertinent to utilities installed prior to October 31st shall be completed November 15th of the same year.

SP A.6 – PERFORMANCE GUARANTEE OF WORK

If after the approval of final payment for each class of work and prior to the expiration of 1 year after the date of approval of said final payment, or such longer period of time as may be prescribed by law or by terms of any applicable special guarantee required by the Contract Documents, any work is found to be defective, the Contractor shall promptly, without cost to the City and in accordance with written directions of the City, remove it from the site and replace it with non-defective work to the satisfaction of the Engineer.

Failure of the Contractor to complete or to remedy defective work within a reasonable time (not to exceed 30 days of notice to Contractor in any event) shall be deemed a default and the City may take steps as it deems necessary to complete or remedy said work and charge the cost thereof to the Contractor.

SP A.7 – WORK DAYS AND HOURS

The Contractor shall not perform any work on City holidays (MLK Day, Juneteenth, & Veterans Day), Saturdays, or outside of regular working hours without prior written approval from the City. No work shall be done on Sundays or federal Holidays.

Regular working hours are between 7:00 AM and 3:30 PM, Monday through Friday.

If work is approved after regular working hours and Saturdays, the allowed working hours need to be agreed upon but shall be between 7:00 AM and 7:00 PM, Monday through Friday and between 8:00 AM and 5:00 PM on Saturdays

Equipment shall not be started before 6:45 AM.

SP A.8 – INCIDENTAL WORK

All work required to install the improvements shown or called for on the Plans and in the specifications, shall be incidental to the various bid items in the proposal even though a specific item is not shown, and no additional compensation shall be made to the Contractor, unless it is indicated that additional payment will be allowed or a unit price is provided for said work in the Contract.

SP A.9 – PRE-CONSTRUCTION MEETING

A pre-construction meeting shall be held prior to start of construction after execution of the Contract Documents. The Engineer shall establish the time and place of the pre-construction meeting. At the time of the meeting, the Contractor shall be required to furnish and/or discuss the following:

- Notify Engineer 7 days prior to the start of construction.
- Written progress schedule/Completion Deadline.
- Names of Subcontractors and Material Suppliers.
- Names of Project Manager and/or Field Supervisor, including the name and phone number of a responsible individual who can be reached twenty-four (24) hours per day, seven (7) days per week.
- Notifications
- Notify the Engineer 72 hours prior to the start of the project.
- General cleanup of the work site at the end of each day. The Contractor must have a water meter and hoses, or water truck on site prior to the start of excavation. Contractors and their sub-contractors will not be allowed to obtain water from private property.
- Granular trench backfill, method and equipment used for compaction.
- CCDD requirements
- Protection of existing pavement and placement of cold patch. The Contractor must be prepared to place temporary pavement within the same day of removing the existing pavement.
- Driveway access
- Landscape restoration
- A J.U.L.I.E status for the project site, scheduled by the Contractor, prior to commencement of any work.

Upon receipt of the Notice of Award, the Contractor shall prepare a traffic control plan and project schedule setting forth the hours and days of operation for each task required by the contract. The project schedule shall be reviewed, and revised as required, and submitted with each payment request and/or request for extension of time.

SP A.10 – NOTIFICATION

The Contractor shall notify the Engineer a minimum of seven (7) days prior to starting the project, and a minimum of two (2) working days (48 hours) prior to starting each different type of work.

Parking

The Contractor shall supply and post “No Parking” signs on thirty-six inch (36”) high lath or mounted on barricades every fifty feet (50’), two feet (2’) from the back of curb or edge of pavement, at least two (2) working days (48 hours) prior to work in the affected area. The Contractor shall contact the City of Aurora Police Department (630-256-5000) prior to placing "No Parking" signs. “No Parking” signs only need to be installed in areas of existing parking. Temporary parking restriction signs shall be no more than 48 hours after a specific stage of work is completed and the parking restriction is no longer required.

The supply and posting of “No Parking” signs and all other notifications to various local agencies, residents, or businesses shall not be paid for separately, but shall be considered incidental to the Contract.

Roadway

The Contractor shall notify the Engineer twenty-four (24) hours prior to the closure of any road so that the Aurora Police and Fire Departments, the appropriate School District, and the Pace Bus Service can be notified appropriately.

Water

The Contractor shall notify the Engineer to request a shut-down of existing water supply a **minimum of seventy-two (72) hours in advance so that proper notification and maps can be coordinated.**

The Contractor shall hand deliver written notices provided by the City to all residences and/or businesses **by 5pm two (2) calendar days before the shutdown, except Monday shutdown notices shall be handed out by Friday at 5pm** a minimum of **forty-eight (48)** hours prior to shutting down water mains or affecting continuous water supply.

The Contractor shall notify the Engineer a minimum of twenty four (24) hours in advance of exposing or disturbing any potential lead water service lines to allow the Engineer to obtain the required risk notification paperwork.

Sanitary

The Contractor shall make every effort to maintain sewer service usage throughout the duration of the project. In the event that a connection will be out of service, the service disruption shall not exceed 8 hours. A public notification program shall be implemented, and shall at a minimum, require the Contractor to be responsible for contacting each home or business connected to the sanitary sewer and informing them of the work to be conducted, and when the sewer will be off-line. The Contractor shall also provide the following:

- Written notice to be delivered to each home or business at least 48 hours prior to the beginning of work being conducted on the section, and a local telephone number of the Contractor they can call to discuss the project or any potential problems.
- Personal contact with any home or business, which cannot be reconnected within the time stated in the written notice.

SP A.11 – CONTROL OF MATERIALS

All material used shall meet the requirements of the Illinois Department of Transportation, the Standard Specifications for Water and Sewer Main Construction in Illinois, the City of Aurora Standard Specifications for Improvements, and as outlined in these specifications.

All materials will be inspected, tested, and approved by the Engineer before incorporation into the work. The Contractor shall provide the City with letters of certification from each supplier when requested.

Any work in which untested and unacceptable materials are used without approval or written permission from the Engineer shall be performed at the Contractor's risk and may be considered unacceptable and unauthorized and will not be paid for.

SP A.12 - RECORD DRAWINGS

The Contractor shall assist the City or City’s representative in taking GPS shots to shoot fittings, taps, sleeves, services, etc. as needed so the City can create record drawings. The Contractor shall provide level, rod, etc. and laborer in assisting the Engineer to verify changes. This work shall not be paid for separately but shall be considered incidental to the Contract.

5.3. SAFTEY

SP S.1 – TRAFFIC CONTROL AND PROTECTION

Traffic control shall be in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, the Recurring Special Provisions and Supplemental Specifications, the Manual on Uniform Traffic Control Devices for Streets and Highways and the Illinois Supplement to the National Manual on Uniform Traffic Control Devices, and any special details and Highway Standards contained herein and in the Traffic Specifications or Highway Specifications. Special attention is called to Article 107.09 of the Standard Specifications for Road and Bridge Construction.

The Contractor shall submit to the Engineer a Traffic Control Plan for approval by the Engineer. The Contractor shall adhere to the approved Traffic Control Plan. The Contractor shall obtain written approval from the Engineer forty-eight (48) hours in advance of the implementation of any and all alterations or deviations from the Traffic Control Plan.

All orange signs used shall be fluorescent orange in color. **Deteriorated, damaged, or signs with non-original material on the front surface will not be allowed**.

Prior to the start of work the Contractor shall have a sufficient number of barricades, signs, and flaggers at the jobsite for the scheduled work. If satisfactory traffic control as determined by the Engineer is not in place, the Engineer shall order the work to be halted. Traffic control devices shall not be removed without prior written notice and approval of the Engineer.

The Contractor shall obtain, erect, maintain, and remove all signs, barricades, flaggers, and other traffic control devices as may be necessary for the purposes of regulating, warning, or guiding traffic. The supplying, installation, and maintenance of traffic control and protection shall be paid for at the contract unit price per LUMP SUM (LS) for TRAFFIC CONTROL AND PROTECTION.

Pavement marking removal may be included in the Contract. The Contractor shall coordinate pavement marking removal with the Engineer. Pavement marking removal shall be paid for at the contract unit price per SQUARE FOOT (SF) for PAVEMENT MARKING REMOVAL.

Temporary pavement marking may be included in the Contract. The Contractor shall coordinate temporary pavement marking with the Engineer. Temporary pavement marking shall be 4-inches wide and paid for at the contract unit price per FOOT (LF) for TEMPORARY PAVEMENT MARKING – YELLOW, or TEMPORARY PAVEMENT MARKING – WHITE. Temporary pavement marking for words and symbols shall conform to the sizes and dimensions specified in the Manual on Uniform Traffic Control Devices standards and shall be paid for at the contract unit price per SQUARE FOOT (SF) for TEMPORARY PAVEMENT MARKING – LETTERS AND SYMBOLS.

SP S.2 – RESPONSIBILITY FOR CONSTRUCTION SAFETY, SHORING AND CONSTRUCTION METHODS

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions for the safety of; and shall provide the necessary protection to prevent damage, injury or loss to:

a. All employees on the work and other persons who may be affected thereby.
b. All work and materials or equipment to be incorporated therein, whether in storage on or off the site.
c. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement during construction.

The Contractor shall be responsible for complying with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss. The Contractor shall be responsible for erecting and maintaining, as required by the conditions and progress of the work, all necessary safeguards for its safety and protection, including tight sheeting or shoring of the trench. He shall notify owners of adjacent utilities when prosecution of the work may affect them. All damage, injury, or loss to any property referred to in paragraph (a) or (b) caused, directly or indirectly, in whole or in part, by any Contractor or Subcontractor or anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, shall be remedied by the Contractor. The Contractor's duties and responsibilities for the safety and protection of all work shall continue until such time as all the work is completed and acceptable. Any damages shall be repaired in a timely manner. Any and all interruptions of essential utilities such as water, electricity, or gas shall be corrected that same day and before the foreman leaves the site. (See Guarantee & Maintenance of Work for time of acceptance.)

The Contractor shall be responsible for coordinating with utility companies regarding the bracing or relocating of utility poles, and the relocation of any underground facilities.

The Engineer shall not be responsible for determining the Contractor’s construction means or methods.

SP S.3 – LOCATION OF UTILITIES

The Contractor, before submitting a Bid, shall carefully examine the Proposal, Plans, Details, Specifications, and Special Provisions. The successful Bidder shall inspect in detail the site of the proposed work and be familiar with all the local conditions affecting the proposal and the detailed requirements of construction.

When existing structures, services, utilities, pipelines and improvements (both above and below ground) are shown on the Plans, the locations shown are approximate only and are not guaranteed. Obstructions and improvements in addition to those shown on the Plans may also be encountered in carrying out the work. The Contractor shall be responsible for carrying out all work under this contract without additional compensation for whatever condition is found above or below ground.

The Contractor shall notify all utility companies including the City of Aurora's electrical division and water and sewer division, local electric companies, local telephone and communications companies, local natural gas companies, and local cable TV companies, and appropriate school districts, a minimum of two (2) working days (forty-eight hours) prior to beginning any construction or preliminary borings. The Contractor shall have the responsibility to determine from the public utility companies and the City of Aurora Departments the locations of underground pipes, conduits, cables, or other surface or subsurface improvements adjoining or crossing the construction area.

The depth and alignment of the existing water mains and sewers are approximate and may vary in both alignment and depth between manholes and valves. The Contractor shall not be due any additional compensation in the event that the alignment of the sewers and water mains vary from what is shown on the Plans. The call outs shown on the Plans for the existing water mains are approximate and not guaranteed.

The Contractor shall be responsible for coordinating with utility companies regarding the bracing or relocating of utility poles, and the relocation of any underground facilities. Cassie Evans (cassie.evans@ComEd.com, C: 773-241-0741) should be contacted to arrange for any needed pole bracing.

5.4. HOUSEKEEPING/SOIL EROSION & SEDIMENT CONTROL

SP H.1 – SOIL EROSION CONTROL

If the size of the project warrants a Storm Water Pollution Prevention Plan (SWPPP), then the Contractor and their Subcontractors shall sign the necessary certification forms and follow the requirements of the SWPPP. The Contractor shall coordinate with the Engineer on correcting any deficiencies identified during inspections or Incidents of Non-compliance and shall notify the Engineer of any changes to the SWPPP's Erosion Control Plan.

This work shall consist of the supply and installation of soil erosion and sedimentation control devices in accordance with Article 280 of the Standard Specification for Road and Bridge Construction, the City of Aurora's Standard Specifications for Improvements, the Kane-DuPage Soil and Water Conservation District, the Illinois Environmental Protection Agency – Division of Water Pollution Control's NPDES Permit No. ILR10, and with the details within the construction drawings.

Prior to starting any excavation, the Contractor shall be required to place Engineer approved inlet protection such as an inlet basket sized to fit that particular frame, or equal, in all curb structures in accordance with the Soil Erosion and Sediment Control Plan.

Silt fence shall be installed as shown on the Plans in accordance with the details provided.

In the event that ground water is encountered during excavation, the Contractor shall provide dewatering filtration bags for each pump discharge line. The filtration bags shall be as manufactured by Dandy Products or approved equal.

Erosion and Sedimentation Control shall not be paid for separately but shall be considered incidental to the contract. The supply and installation of inlet baskets shall be paid for at the contract unit price for EACH (EA) for INLET PROTECTION. The supply and installation of a filtration bag shall be paid for at the contract unit price per EACH (EA) for DEWATERING BAG. The supply, installation, and maintenance of silt fence according to the details included in the improvement Plans shall be paid for at the contract unit price per FOOT (LF) for SILT FENCE. All material used for erosion and sedimentation control shall be disposed of off-site along with all debris collected within the control devices. Disposal shall not be paid for separately and shall be considered incidental to the Contract.

SP H.2 – DUST CONTROL & DIRT ON PAVEMENT

The Contractor shall at all times be responsible for maintaining dust-free conditions. The Contractor shall clean the pavement of all dirt and debris **at the end of each day's operations,** and at other times as directed by the Engineer by means of high pressure washing or by mechanical sweeping. The Contractor shall provide for the control of dust as specified in Section 24 of the Standard Specifications for Water and Sewer Construction in Illinois, or by the uniform application of a dust control agent approved by the Engineer.

If City water is used for dust control, the Contractor must have a water meter and hoses on site prior to the start of any excavation.

If the Contractor does not meet the requirement of controlling dust and/or cleaning the pavement, within three (3) hours of notification by the Owner, the Owner shall make the necessary arrangements to control the dust and clean the pavement(s). The cost of such action will be deducted from any monies due or to become due to the Contractor. **Additionally, the City will deduct $750.00 per day from monies due, or to become due, for each day that the Contractor fails to comply with this special provision. In addition, the Contractor will pay any penalties resulting from any Illinois Environmental Protection Agency, NPDES for Construction violations issued to the Owner.** Such sum to be charged not as a penalty but as liquidated damages. The parties agreeing that actual damages to the City of Aurora would be uncertain and difficult to calculate and the amount of such liquidated damages is a reasonable estimate of the supervision costs likely to be incurred by the City of Aurora as a result of the Contractor's failure to control dust and clean the pavement(s) as required.

Dust control and pavement cleaning shall be considered incidental to the cost of the contract and will not be paid for separately.

SP H.3 – CLEANING ALL STRUCTURES

Before final acceptance, all structures and staging areas that were occupied by the Contractor in connection with this work shall be cleaned of all rubbish, excess materials, and other foreign materials deposited or accumulated on or in the structures and areas. Cleaning all structures shall be considered incidental to the cost of the contract and will not be paid for separately.

SP H.4 – HEAVY SEWER CLEANING

This work shall be in accordance with NAASCO Sewer Pipe Cleaning Specification Guideline 1.4 D Heavy Sewer Cleaning insofar as applicable and the following provisions.

Heavy cleaning of sewers includes removal of large deposits of debris, root growth, mineral deposits, bricks, grease deposits, and other foreign materials. The Contractor shall utilize a Jetter-Vacuum Combination truck with high velocity (120 GPM or Higher) hydro-cleaning equipment. Scrapers and augers may be used. HEAVY SEWER CLEANING shall be approved by the Engineer prior to the work.

The Contractor shall be responsible for disposing of all septic material removed from the heavy cleaning procedure to a permitted disposal facility. In no circumstance shall passing material from manhole to manhole be left unattended in the invert of the sewer. Such material must be removed immediately.

The Contractor shall take all necessary precautions of not reducing the flow capacity of the sewers during the bucketing procedures. This can be accomplished by by-passing flows to downstream manholes.

The Contractor shall advise the Engineer 48 hours prior to starting the heavy cleaning. If this work is subcontracted to others, the City will require approval of said Subcontractor.

The cost of heavy cleaning, which includes debris removal and disposal, bucketing, root removal and disposal, and all necessary and appurtenant work shall be included in the contract unit price per HOUR (HR) for HEAVY SEWER CLEANING. The size of the sewers may vary from 8-inch to 96-inch diameter.

SP H.5 – DISPOSAL OF DEBRIS AND EXCAVATED MATERIAL

The Contractor shall dispose of spoils at a CCDD facility of their choosing with the disposal fees paid by the Contractor. It is the Contractor's responsibility to make sure the provided CCDD documentation meets the requirements of the accepting CCDD facility. The City of Aurora shall not be responsible for any costs associated with disposal of debris if the Contractor's anticipated CCDD facility does not accept the CCDD documentation provided by the City.

The Contractor shall be responsible for removal and disposal of all waste material, asphalt, grindings, concrete, stone, dirt or debris generated in the course of the work to a facility permitted to accept such waste. The Contractor shall load the removed pieces of curb and gutter, sidewalk, street pavement, trench excavation, etc. directly onto trucks, haul it away and dispose of it.

The temporary storing of excavated materials on the parkway and/or street and re-handling them later for disposal may be allowed on a limited basis with prior approval by the Engineer. Erosion control measures will be required when rain events are anticipated. This will not be eligible for payment as temporary staging and shall be included in the cost of the project.

Clean Construction and Demolition Debris

In addition to the requirements of Articles 107.01 and 669 of the Standard Specifications, the Contractor shall be responsible for the proper removal and disposal of excavated materials from the project site. The Contractor shall meet all the requirements set forth by the IEPA in regard to Clean Construction and Demolition Debris. The City of Aurora will provide all investigative work and testing required to meet the current CCDD requirements. The City of Aurora will provide the Contractor with signed IEPA forms for disposal.

Prior to commencement of construction, any exclusion zones that were identified during the PESA process shall be discussed, along with a procedure for addressing any potentially impacted materials. At no time is material within an exclusion zone, to be transported to a licensed CCDD Facility. Further, the Contractor should immediately alert the City if potentially impacted material is encountered outside of any identified exclusion zones. All potentially impacted material, or material rejected by a licensed CCDD Facility shall be stockpiled in an area designated by the City; that area will be within 5 miles from the project site. ***THE INITIAL TRANSPORT OF MATERIAL TO THE CCDD FACITLITY OR TEMPORARY STAGING SITE SHALL BE CONSIDERED INCLUDED IN THE COST OF THE OPERATION GENERATING THE SPOILS.***

Material taken to a temporary staging facility will be further tested by the City to determine the appropriate disposal process. After such testing is completed, the Contractor will be compensated as follows:

- ***Temporary Staging*** *– The Contractor will be paid per ton (based on tickets as provided by the receiving facility) to transport the material to a licensed CCDD Facility. This material is generally classified as material that has been stockpiled temporarily but based on additional testing meets the requirements for disposal at a licensed CCDD Facility. Should the Contractor elect to work on a day when the licensed CCDD Facility/Facilities registered for the project are closed, any temporary staging shall not be paid for but shall be considered included in the cost of the item generating the spoil material.*
- ***Non-Special Waste Disposal*** *– Based on the results of additional testing, the Contractor will be paid per ton (based on tickets as provided by the receiving facility) to transport the material and pay any fees assessed by the receiving facility; this dollar amount shall be as contained within the contract, or as*

otherwise established utilizing an AUP or on a Time and Material Force Account basis.

- ***Special Waste Disposal*** *– Based on the results of additional testing, the Contractor will be paid per ton (based on tickets as provided by the receiving facility) to transport the material and pay any fees assessed by the receiving facility; this dollar amount shall be as contained within the contract, or as otherwise established utilizing an AUP or on a Time and Material Force Account basis.*

The bidders shall take note of exclusion zones that may be limited to certain depths. If exclusion zones only compose a certain range of depth within an excavation, the awarded Contractor will be required to excavate the material such that only the excluded material is taken to a landfill.

SP H.6 – HAZARDOUS SPILL REMEDIATION

The Contractor shall be responsible for the cleanup of any hazardous spills on the jobsite including oil, diesel, gasoline, etc. and any spill that enters the sewer system or any bodies of water downstream. The Contractor shall expeditiously work with all requests from the Illinois Environmental Protection Agency (IEPA) to comply with cleaning up any spills. The Contractor will be required to hire a contractor specializing in environmental cleanup, and that contractor shall coordinate directly with the IEPA. Should the Fire Department be involved responding to reports of spills and the resulting clean up and the spill is traced back to the Contractor's jobsite, the Contractor shall be liable to reimburse the Fire Department any monies incurred for their efforts. The Fire Department efforts includes materials, equipment and labor that they deem necessary to contain or clean up the spill. All costs including coordination, fines and documentation with state and federal agencies, hiring of an environmental cleanup contractor, any environmental cleanup, reimbursement of the Fire Department, or any other costs associated with cleaning up or responding to spills originating from the jobsite shall be paid for by the Contractor. The City will not reimburse the Contactor for any of this work should it occur.

5.5. GENERAL

SP G.1 – MOBILIZATION

This item consists of transportation and setup of various equipment necessary to any and all locations for the project, as well as the breakdown and removal of the same equipment.

This item shall be considered incidental to the contract and will not be paid for separately.

SP G.2 – WATER FOR CONSTRUCTION PURPOSES

City water for construction purposes will be available to the Contractor at their cost according to the prevailing rates in effect at the time. Contractors and their sub-contractors will not be allowed to obtain water from private property. The Contractor shall secure a City water meter by presenting a deposit for $1,600.00 in the form of a certified check made out to The City of Aurora to the Water Billing Department on the First Floor of 44 E. Downer Place, Aurora, Illinois. The name of the Contractor and their Tax ID number will be required. The Contractor will take the resulting forms to the Water & Sewer Maintenance Division located at **2185 Liberty Street, Aurora, Illinois** where the City water meter shall be provided. The Contractor and/or sub-contractor will be fined, according to ordinance, which will be deduced from moneys due, for each unauthorized use of City water regardless of the amount of water used or the reason for unauthorized use.

SP G.3 – SURFACE RESTORATION

The Contractor shall be responsible for performing any surface restoration required due to damages caused by storing material and/or equipment outside the areas to be excavated. The surface restoration shall be performed in accordance with the Plans and specifications or as directed by the Engineer and shall be at the Contractor's expense.

SP G.4 – STRUCTURE TO BE ABANDONED

This work shall consist of all work necessary to abandon existing manholes, inlets, catch basins, valve vaults, valve boxes and any other type of structures as shown on the Plans or as directed by the Engineer in the field.

All valve boxes on water mains to be abandoned shall be removed by the Contractor.

The abandonment of the structure shall include the removal of the casting, adjusting rings and cone section. All pipe connections shall be sealed with concrete bricks and non-shrink mortar twelve inches (12") thick and the structure shall be filled with CA-7 granular trench backfill. If the structure being abandoned is located within pavement, it shall be capped with at least twelve inches (12") of CA-6 granular trench backfill and mechanically compacted or jetted. If the structure being abandoned is located outside of pavement, the CA-7 granular trench backfill shall be six inches (6") below grade to allow six inches (6") of pulverized topsoil to be placed.

If a structure to be abandoned is located within the trench limits of a new improvement, the structure to be abandoned shall be completely removed and shall not be paid for separately but shall be considered incidental to the Contract.

If the structure to be abandoned is deeper than the new improvement, the extra excavation volume will be paid for at the contract unit price per CUBIC YARD (CY) for UNSUITABLE SOIL REMOVAL AND REPLACEMENT.

When the limits of the structure abandonment fall outside the limits of excavation for new improvements, the Contractor shall be paid for at the contract unit price as specified below.

This work shall be paid for at the contract unit price per EACH (EA) for STRUCTURE TO BE ABANDONED and shall include removal and disposal of structure and all equipment, labor, and material necessary to complete the work.

Select Granular Trench Backfill shall be considered incidental to the STRUCTURE TO BE ABANDONED pay item.

SP G.5 – TRENCH BACKFILL, PIPE BEDDING, AND COVER

All select granular material shall meet IDOT gradation specifications and shall be either crushed limestone, crushed concrete or crushed gravel. Material excavated as part of this project may be processed on site for re-use with approval from the Engineer at an agreed upon unit price.

Pipe Bedding

Pipe bedding shall consist of over-excavation of the trench bottom and refilling to proper grade in accordance with the trench backfill details included in the Plans.

The cost of supplying and installing the aggregate bedding shall not be paid for separately but shall be considered incidental to the project.

Haunching

Pipe Haunching shall consist of compacted aggregate for the full width of the trench to the spring line for the reinforced concrete pipe or ductile iron pipe and to one foot (1') above the top of the pipe for PVC pipe in accordance with the details included in these Plans.

The cost of supplying and installing the aggregate haunching shall not be paid for separately but shall be considered incidental to the cost of the pipe.

Trench Backfill

Trench backfill shall be placed in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois and the Trench Backfill Detail as shown on the Plans.

Place Trench Backfill material to required elevations, for each area classification listed below:

Under grassed areas:

Satisfactory excavated or borrow material, approved by the Engineer.

Under pavements:

Select Trench Backfill of compacted CA-6 crushed limestone or CA-6 crushed gravel.

Place backfill materials evenly adjacent to structures or piping to required elevations. Take care to prevent wedging action of backfill against structures or displacement of piping by carrying material uniformly around structure of piping to approximately same elevation in each lift.

Compaction Jetting and Water Soaking

The holes through which the water is injected in the backfill shall be placed in a grid pattern at intervals of not more than four feet (4'). Additional holes shall be provided if deemed necessary by the Engineer to ensure adequate settlement. All holes shall be jetted and shall be carried to a point one foot (1') above the top of the pipe. Drilling the holes by means of augers or other mechanical means will not be permitted. Care shall be taken in jetting to prevent contact with or other disturbance to the pipe.

The water shall be injected at a pressure and rate sufficient to sink the holes at a moderate rate. After a hole has been jetted to the required depth, the water shall be injected until it begins to overflow the surface.

If the Contractor requests and receives approval to perform mechanical compaction in place of jetting all trenches, they shall be responsible for hiring and compensating a third party testing agency to verify that the minimum compaction requirements listed in the Standard Specifications for Water and Sewer Construction in Illinois and the Compaction Requirements special provision shall be met. Mechanical compaction shall be performed in accordance with the Standard Specifications for Water and Sewer Construction in Illinois.

Surface depressions resulting from backfill subsidence caused by compaction shall be filled and re-compacted by tamping or rolling to the satisfaction of the Engineer.

Measurement and Payment

The cost of supplying and installing the aggregate bedding and haunching shall not be paid for separately but shall be considered incidental to the contract.

The cost of supplying and installing the initial and final Select Granular Trench Backfill shall be paid for at the contract unit price per CUBIC YARD (CY) for SELECT GRANULAR TRENCH BACKFILL. Section 20 of the Standard Specifications for Water and Sewer Main Construction in Illinois shall be used to determine the quantity of Select Trench Backfill that will be eligible for payment. The depth used for the purposes of calculating the quantity of trench backfill that is eligible for payment shall be from the top of the haunching to the bottom of the bituminous pavement patch.

SP G.6 – COMPACTION REQUIREMENTS

The Contractor shall control soil compaction during construction in order to provide the minimum percentage of maximum or relative density as specified for each area of classification indicated below:

Percentage of Maximum Density Requirements

Compact soil to not less than the following percentages of maximum density for soils which exhibit a well-defined moisture density relationship (cohesive soils) determined in accordance with ASTM D 1557; and not less than the following percentages of relative density, determined in accordance with ASTM D 2049, for soils which will not exhibit a well-defined moisture-density relationship (cohesionless soils).

Pavement, Drives, and Sidewalks

Compact the top twelve inches (12”) of sub-grade and each layer of backfill material at 95% of the materials’ maximum density at optimum moisture content as determined by the modified proctor test.

Lawn or Unpaved Areas

Compact the top six inches (6”) of sub-grade and each layer of backfill material at 85% maximum density for cohesive soils and 90% relative density for cohesionless soils.

Moisture Control

Where sub-grade and each layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of sub-grade, or layer of soil material, to prevent free water appearing on surface during or subsequent to compaction operations.

Compaction shall be considered incidental to the project and shall not be eligible for payment.

SP G.7 – PIPE AND PRE-CAST CONCRETE STRUCTURES MATERIAL TESTS

All pipe and pre-cast concrete structures shall be tested and inspected for compliance with the appropriate A.S.A., A.S.T.M., and Manufacturer's Specifications by a reputable testing company approved by the Engineer. Prior to delivering pipe and pre-cast concrete structures to the job site, all approved pipe and pre-cast concrete structures shall be marked by the testing company and two (2) copies of the satisfactory test reports shall be provided to the Engineer if requested. Any pipe or pre-cast concrete structure delivered to the site without proper markings or without test reports in the possession of the Engineer will be rejected for use.

SP G.8 – STRUCTURE TAPS

This work shall consist of connecting proposed sewers to existing manholes, catch basins and inlets in accordance with the Plans, details, and these specifications. This work shall include all excavation, sheeting, shoring, dewatering, supporting adjacent utilities and structures, core drilling and all other appurtenant work. **The Contractor shall be responsible for any and all damages to existing utilities.** If the Engineer determines an existing structure is to be re-used in lieu of replacement, the cost for connecting the proposed sewer to the existing structure shall be included in the cost for the structure tap.

In the event that the structure tap is to be performed on a sanitary manhole, the work shall include the installation of a rubber boot in accordance with the details and FMWRD requirements. A rubber boot will not be required for connections to storm sewer structures.

This work shall be paid for at the contract unit price per EACH (EA) for STORM STRUCTURE TAP or SANITARY STRUCTURE TAP for the size specified in the contract.

SP G.9 – MAILBOX REMOVAL AND REINSTALLATION

This work shall consist of temporarily relocating mailboxes which will conflict with proposed improvements and reinstalling them in their original locations once the construction activities have ended.

The Contractor shall be careful to avoid damaging mailboxes when removing the mailboxes and reinstalling them in the temporary and permanent location. If the post is damaged during the removal, the Contractor shall supply and install new mailbox posts. The Contractor shall also replace damaged mailboxes at their expense.

This work shall be paid for at the contract unit price per EACH (EA) for MAILBOX REMOVAL AND REINSTALLATION, which shall include the material and labor necessary to remove, temporarily relocate, and reinstall the existing mailbox.

SP G.10 – FIBER OPTIC CONDUIT

This item consists of furnishing all labor, material, and equipment necessary to perform the work required under this Special Provision. This work consists of the installation of conduit, tracer wire, hand holes, hand hole locate pedestals, accessories and shall also include the excavation of trenches to the required depth or directional boring; bracing and supporting the adjoining ground, structures, or utilities, both above and below ground as required; tree pruning, providing barricades, guards and warning lights, laying the pipe, backfilling and consolidating the trenches; dewatering the underlying soil stratum; bracing and/or relocation of power poles; relocating existing services; cleaning and restoration of the work site and maintaining the streets or other surfaces over the trenches for the installation of the City of Aurora's fiber optic network. The installation of the fiber optic cable and connections shall not be included in this contract. This work shall not include surface restoration where unit prices are provided in the contract. All costs associated with time delays due to the relocation of utilities found to be in conflict with the proposed improvements shall be considered incidental to the contract.

Any trees, bushes, manmade surface structures, fences, signs, sanitary sewers, culverts, etc. which are close in proximity to the proposed improvements and therefore disturbed, damaged or removed due to construction shall be fully restored to the original condition and to the satisfaction of property owners adjacent to said work and the Engineer. The work, materials and all other appurtenances related to the above mentioned restoration shall be incidental to the contract, unless a unit price is provided for said work in the contract.

The Contractor shall install conduit and hand holes as specified in the Plans and these specifications. Conduit installation shall consist of a bank of three (3) 1 ¼" SDR11 HDPE conduit. Each conduit bank shall consist of one line of each of the following colors: orange, orange with blue stripe, and orange with green stripe. Each conduit shall have a pull rope installed between hand holes. One conduit shall have a tracer wire installed between hand holes. Conduit shall be laid to avoid sharp bends and turns, any crimps or kinks in the conduit shall be removed and replaced with smooth pipe of the same color. Conduit shall have a gradual slope into the bottom of the hand holes.

Conduit shall be bundled together using a method approved by the Engineer. Conduit shall typically be buried between 32 and 40 inches below grade. Shallower or deeper bury depths may be permitted by the Engineer to avoid other utility conflicts. Conduit may be open trenched or directionally bored unless otherwise noted on the engineering Plans or directed by the Engineer.

Tracer wires shall be Agave Wire – 12AWG HMW-PE-(30) Tracer Wire 30V (UL) E246360, or approved equal.

Hand holes shall be installed at the end of each conduit run and at least every 400 feet along runs. Hand holes shall be Quazite 30" x 48" PG or PD Style hand holes 24" deep. The City of Aurora logo shall be cast into each hand hole lid. Each hand hole shall have a UPCBD2 distribution pedestal, manufactured by Emerson Network Power Energy Systems, or approved equal.

This work shall be paid for at the contract unit price per FOOT (LF) for FIBER OPTIC CONDUIT, which shall include all material and labor necessary for installation, the pull ropes and tracer wire shall be considered incidental to installation. Hand holes shall be paid for at the contract unit price per EACH (EA) for FIBER OPTIC HAND HOLES, which shall include all material and labor necessary for installation, the UPCBD2 locate pedestal shall be considered incidental to the installation.

SP G.11 – EXPLORATORY EXCAVATION

This work shall consist of excavating exploratory trenches in pavement for the purpose of establishing the horizontal and vertical alignment of existing underground utilities within the construction limits of the proposed improvements. A symbol may be shown on the Plans to identify the approximate location of the exploration trench. The Engineer may require the Contractor to perform exploration trenches not shown on the Plans.

This work shall be done at the direction of the Engineer in order to provide sufficient time to make design changes as needed. The exploratory excavation shall not be paid for if the contractor does not perform it as a separate dig. The trench shall be of sufficient length and depth to obtain the horizontal and vertical location and size of the underground utility. After the hole has been inspected by the Engineer, the Contractor shall backfill the hole with the appropriate backfill material and shall place temporary pavement if needed. If exploratory excavation is within the limits of underground trench, backfill will be considered and incidental to the exploratory excavation pay item.

This work shall be paid for at the contract unit price per FOOT (LF) for EXPLORATORY EXCAVATION of the depth specified. This unit price shall include all necessary saw cutting, pavement removal, excavation, removal of spoil off-site, and approved backfill material.

If the use of temporary pavement is required, it will be paid for at the contract unit price per SQUARE YARD (SY) for TEMPORARY PAVEMENT, 2".

SP G.12 – REMOVE AND PLUG ABANDONED WATER SERVICE

This work shall consist of removing and plugging an abandoned water service as shown on the Plans or as directed by the Engineer in the field. The abandoned water service shall be disconnected at the corporation stop. The corporation stop shall not be removed but shall be turned off and a brass plug securely installed to prevent leaks.

The Contractor shall leave the excavation open until the City or the City's representative has been able to take the appropriate GPS shot to record these locations. The Contractor shall keep records of the services removed and the plugs installed if not observed by the Engineer. This work shall not be paid for separately but shall be considered incidental to the Contact.

The removal and disposal of abandoned water services to facilitate the installation of new improvements or within 6' of the new water service replacement tap, shall not be paid for separately, but shall be considered incidental to the Contract. The Contractor shall receive pre-approval from the Engineer to locate a new water service replacement tap more than 6' from the existing tap to be abandoned which would trigger the payment of this pay item. The plugging and/or removal of abandoned water services within areas identified in the Plans for excavation shall not be paid for separately but shall be considered incidental to the contract.

The removal and abandonment of water services not within the vicinity of the planned excavated areas as identified on the Plans shall be paid for at the contract unit price per EACH (EA) as REMOVE AND PLUG ABANDONED WATER SERVICE and shall include removal and disposal and all equipment, labor, and material necessary to complete the work.

SP G.13 – TREE TRIMMING

Tree trimming may be required to allow room for construction equipment to move and swing overhead. In the event tree trimming is needed on a private tree, the contractor shall coordinate with the Engineer to confirm the homeowner is notified that their tree will require trimming and the date that the trimming is scheduled to occur. **Tree trimming required for construction shall not be paid for separately but shall be considered incidental to the Contract which shall include the disposal of the material removed.**

SP G.14 – TREE ROOT PRUNING

All work, materials and equipment shall conform to Section 201.06 (a) of the Standard Specifications for Road and Bridge Construction except as modified herein.

Fertilizer nutrients and supplemental watering after root pruning is performed shall not be required. Root pruning shall be paid for at the contract unit price per FOOT (LF) for Tree Root Pruning and shall conform to Section 201 of the Standard Specifications for Road and Bridge Construction.

SP G.16 – TRUCKING CITY OF AURORA SPOILS TO LANDFILL

The City of Aurora Water & Sewer Maintenance Division has a transfer pad at 649 S. River Street that stores spoils from utility dig repairs and needs assistance transporting these spoils to the correct disposal location. Spoils tested and approved for disposal at an approved CCDD facility will be taken to Fox River Stone Co. and CCDD, 6110 IL Route 71, Oswego, Illinois. Spoils tested and rejected for disposal at an approved CCDD facility will be taken to Rochelle Landfill at 6513 S. Mulford Rd., Rochelle Illinois.

The City of Aurora will pay for all dump fees at either location. The City shall provide staff and equipment to load the trucks at the transfer pad for the disposal and hauling of these spoils.

Trucking costs from the transfer pad to a CCDD facility or landfill shall be paid for at the contract unit price per HOUR (HR) for TRUCKING CITY OF AURORA SPOILS TO LANDFILL. 18-wheeled tractor trailers shall be used for the trucking. It is anticipated that a typical trucking day would be a full 8-hour day. Hours shall be considered on a per truck basis as in 4 trucks for 8 hours would be eligible for 32 hours of payment.

5.6. STORM SEWERS

SP ST.1 – STORM SEWERS

This item consists of furnishing all labor, material, and equipment necessary to perform the work required under this Special Provision. It shall consist of hauling and distributing all pipes, fittings, bends, wyes, accessories and shall also include the excavation of trenches to the required depth; sheeting, bracing and supporting the adjoining ground, structures, or utilities, both above and below ground as required; tree pruning, providing barricades, guards and warning lights, laying and testing the pipe, backfilling and consolidating the trenches; dewatering the underlying soil stratum; provide flow by-passing; bracing and/or relocation of power poles; relocating existing services; cleaning and restoration of the work site and maintaining the streets or other surfaces over the trenches as required. This work shall not include surface restoration where unit prices are provided in the Contract. All costs associated with time delays due to the relocation of utilities found to conflict with the proposed improvements shall be considered incidental to the Contract.

Any trees, bushes, manmade surface structures, fences, signs, sanitary sewers, culverts, etc. which are close in proximity to the proposed improvements and therefore disturbed, damaged or removed due to construction shall be fully restored to the original condition and to the satisfaction of property owners adjacent to said work and the Engineer. The work, materials and all other appurtenances related to the above-mentioned restoration shall be incidental to the contract, unless a unit price is provided for said work in the contract.

Adjustments to the proposed line and grade may be directed by the Engineer in the field. Any additional work required due to installing the proposed sewer deeper than shown on the Plans shall be considered incidental to the increased quantity of select granular trench backfill.

Any disturbed or exposed lead water services shall be replaced from the water main to the meter and shall be replaced and paid for per applicable sections of the Water Main special provisions.

If unsuitable soil conditions are encountered, the Contractor shall be required to undercut the soil below the proposed sewer. The depth and limit of the undercut shall be determined by the Engineer. The Contractor shall be required to excavate to the depth determined by the Engineer and shall replace the excavated base with CA-1 or CA-7 as directed by Engineer. The excavated material shall be disposed of off-site in accordance with special provision DISPOSAL OF DEBRIS AND EXCAVATED MATERIAL. The costs associated with undercutting the proposed sewer including, excavation, shoring, hauling, dewatering, providing and backfilling with CA-1 or CA-7 shall be included in the bid unit price per CUBIC YARD (CY) for UNSUITABLE SOIL REMOVAL AND REPLACEMENT.

Storm sewers shall be constructed of the following material, unless otherwise noted in the Plans:

1. Reinforced Concrete Pipe (ASTM Designation C-76, Wall Thickness B). The pipe shall be class IV or as indicated in the Plans, with ASTM C-443 Gasket Joints.
2. Ductile Iron Pipe (DIP), cement lined, Class 52 A.N.S.I. Specifications A-21.51 with push-on joint with V-bio polyethylene wrapping.

Measurement for storm sewers will be made along the centerline of pipe with no deductions for fittings, bends, or wyes. Where the storm sewer ends at a structure, or where there is a change in size, measurement will be made to the inside wall of said structure.

Payment will be made at the contract unit price per FOOT (FT) for STORM SEWER, of the type and size specified and shall include excavation, dewatering and all appurtenances.

SP ST.2 – STORM MANHOLES

New storm manholes shall be constructed of pre-cast reinforced concrete in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois, and the details included in the Plans. Nonshrink grout shall be required in the opening left around the pipe connections in the manhole wall.

The cone and barrel sections shall be sealed watertight with 1”x1” butyl rope joint sealant, compressed to the manufacturer’s specifications. The cast iron frame and adjusting rings shall be sealed with M-1 adhesive/sealant and in accordance with the manufacture’s specifications.

The inside joints of manhole sections, adjusting rings, and frame shall not be required to be mortared. However, the area around the pipe and between the pipe and flow channel shall be filled with cement mortar to provide a flush smooth surface.

This work shall also include the installation of a Class SI PCC bench in accordance with the details.

Each manhole shall be furnished with a cast iron frame and cover as specified in the Plans. Frames shall be East Jordan 1050Z1 or approved equal within paved areas. In non-paved areas, the frame shall be East Jordan 1022Z1 or approved equal. The lids shall be East Jordan 1020A watertight covers with two (2) concealed “EPIC” pickholes. The cover shall have the words "City of Aurora” cast into the top, in two (2) inch high lettering. The structures shall be constructed with a minimum of 2” adjusting rings and allow for a maximum of 10” of adjusting rings. The use of concrete adjusting rings shall not be allowed and composite PRO-RING adjusting rings manufactured by Cretex Specialty Products or an approved equal shall be installed. The grade adjustment rings shall be manufactured from ARPRO Expanded Polypropylene, (EPP), black. 5000 series meeting ASTM D3575 and ASTM D48-1913; B6D7G4L3M24S2T17W7. The rings shall be manufactured using a high compression molding process to produce a finished density of 120 g/l ((7.5pcf). “Grade” adjustment rings may contain either an upper or lower keyway (tongue and groove) for vertical alignment and/or an adhesive trench on the underside with a flat top. The grade adjustment rings shall be capable of supporting the minimum requirements of AASHTO M-306, H-25 and HS-25, be UV stable and be resistant to chemicals and corrosion commonly associated with the sanitary and storm sewer environments. The rings shall be set with M-1 Adhesive/Sealant as recommended by the manufacturer between each ring, frame and/or top of structure. [NS1]

Any adjustment to the proposed structure required to match existing or proposed conditions, shall be incidental to this item. Existing frames and lids being removed shall be delivered to 2185 Liberty St, Aurora at the location shown by City personnel.

Payment will be made at the contract unit price EACH (EA) for STORM MANHOLE, of the type and diameter specified, constructed in accordance with the detail shown on the Plans, which price shall include the cost of furnishing and installing the specified frame and lid, excavation, dewatering, installation of new manhole, backfill material, removal and disposal off site of existing storm structures (if present), sealing pipes with brick and mortar found to be connected to the existing structure being replaced as directed by the Engineer in the field, and connection of new or existing pipes to the manhole.

SP ST.3 – CATCH BASINS

New catch basins shall be constructed of pre-cast reinforced concrete in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois, and the details included in the Plans. Non-shrinkable grout shall be required in the opening left around the pipe connections in the manhole wall.

The cone and barrel sections shall be sealed watertight with 1"x1" butyl rope joint sealant, compressed to the manufacturer's specifications. The cast iron frame and adjusting rings shall be sealed with M-1 adhesive/sealant and in accordance with the manufacture's specifications. The inside joints of catch basin sections, adjusting rings, and frame shall not be required to be mortared. However, the area around the pipe and between the pipe and flow channel shall be filled with cement mortar to provide a flush smooth surface. Frames and grates shall be specified in the Plans, but shall be one of the following based on application:

- Neenah R-3015 with Type R grate, or approved equal, for sags
- Neenah R-3286-8V, East Jordan 7520 T1, or approved equal, for continuous grades
- Neenah R-3067 with Type R grate, or approved equal, for additional grate capacity
- Neenah R-3509 for depressed curbs
- Neenah R-4340-B (IDOT TY 8 Grate) for typical rear yards
- Neenah R-4341-A for rear yards where a higher capacity grate is desired

The structures shall be constructed with a minimum of 2" adjusting rings and allow for a maximum of 10" of adjusting rings. The use of concrete adjusting rings shall not be allowed and composite PRO-RING adjusting rings manufactured by Cretex Specialty Products or an approved equal shall be installed. The grade adjustment rings shall be manufactured from ARPRO Expanded Polypropylene, (EPP), black. 5000 series meeting ASTM D3575 and ASTM D48-1913; B6D7G4L3M24S2T17W7. The rings shall be manufactured using a high compression molding process to produce a finished density of 120 g/l ((7.5pcf). "Grade" adjustment rings may contain either an upper or lower keyway (tongue and groove) for vertical alignment and/or an adhesive trench on the underside with a flat top. The grade adjustment rings shall be capable of supporting the minimum requirements of AASHTO M-306, H-25 and HS-25, be UV stable and be resistant to chemicals and corrosion commonly associated with the sanitary and storm sewer environments. The rings shall be set with M-1 Adhesive/Sealant as recommended by the manufacturer between each ring, frame and/or top of structure. [NS2] Any adjustment to the proposed structure required to match existing or proposed grade, shall be incidental to this item. **Frames and Grates shall have the phrase "Dump No Waste Drains to River" cast into them.** Existing frames and grates being removed shall be delivered to 2185 Liberty St., Aurora, at the location shown by City personnel.

Payment will be made at the contract unit price EACH (EA) for CATCH BASIN of the type and diameter indicated, which shall include the cost of all excavation, weep holes, drainage fabric, backfill material and furnishing and installing the specified frame and grate, removal and disposal off site of existing storm structures (if present), sealing pipes with brick and mortar found to be connected to the existing structure being replaced as directed by the Engineer in the field, and connection of new or existing pipes to the new storm structure.

SP ST.4 – STORM INFILTRATION CATCH BASINS

New storm infiltration catch basins shall be constructed of pre-cast reinforced concrete in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois, and the details included in the Plans. Non-shrinkable grout shall be required in the opening left around the pipe connections in the manhole wall.

In the event that an infiltration catch basin is installed without an outlet pipe, the depth from the rim to the top of stone in the catch basin shall be a minimum of 4 feet.

Storm Infiltration Catch Basins shall be installed at locations shown within the construction drawings or as directed by the Engineer in accordance with the details. Contractor shall assure the gravel in the basin is clean and free of debris prior to the City's acceptance. If the Engineer determines the gravel is not clean and free of debris, the Contractor will be required to remove the aggregate and replace it with clean material at no additional cost to the City.

Existing frames and grates being removed shall be delivered to 2185 Liberty St., Aurora, at the location shown by City personnel. **Castings for infiltration catch basins shall have the letters ICB cast into the curb box. The structures shall be constructed with a minimum of 2" adjusting rings and allow for a maximum of 10" of adjusting rings. The use of concrete adjusting rings shall not be allowed and composite PRO-RING adjusting rings manufactured by Cretex Specialty Products or an approved equal shall be installed. The grade adjustment rings shall be manufactured from ARPRO Expanded Polypropylene, (EPP), black. 5000 series meeting ASTM D3575 and ASTM D48-1913; B6D7G4L3M24S2T17W7. The rings shall be manufactured using a high compression molding process to produce a finished density of 120 g/l ((7.5pcf). "Grade" adjustment rings may contain either an upper or lower keyway (tongue and groove) for vertical alignment and/or an adhesive trench on the underside with a flat top. The grade adjustment rings shall be capable of supporting the minimum requirements of AASHTO M-306, H-25 and HS-25, be UV stable and be resistant to chemicals and corrosion commonly associated with the sanitary and storm sewer environments. The rings shall be set with M-1 Adhesive/Sealant as recommended by the manufacturer between each ring, frame and/or top of structure.** [NS3] Any adjustment to the proposed structure required to match existing or proposed grade, shall be incidental to this item.

Payment will be made at the contract unit price EACH (EA) for STORM INFILTRATION CATCH BASIN of the type and diameter indicated, which shall include the cost of all excavation, weep holes, drainage fabric, backfill material and furnishing and installing the specified frame and grate, removal and disposal off site of existing storm structures (if present), sealing pipes with brick and mortar found to be connected to the existing structure being replaced as directed by the Engineer in the field, and connection of new or existing pipes to the new storm structure.

SP ST.5 – INLETS

New inlets shall be constructed of pre-cast reinforced concrete in accordance with Standard Specifications for Water and Sewer Main Construction in Illinois, and the details included in the Plans. Non-shrinkable grout shall be required in the opening left around the pipe connections in the manhole wall.

This work shall also include the installation of a Class SI PCC bench in accordance with the details.

The pre-cast reinforced concrete inlet components shall be sealed watertight with 1"x1" butyl rope joint sealant, compressed to the manufacturer's specifications. The cast iron frame and adjusting rings shall be sealed with M-1 adhesive/sealant and in accordance with the manufacture's specifications. The inside joints of inlet sections, adjusting rings, and frame shall not be required to be mortared.

Each inlet shall be furnished with the frame and grate as specified in the Plans or approved equal. **The structures shall be constructed with a minimum of 2" adjusting rings and allow for a maximum of 10" of adjusting rings. The use of concrete adjusting rings shall not be allowed and composite PRO-RING adjusting rings manufactured by Cretex Specialty Products or an approved equal shall be installed. The grade adjustment rings shall be manufactured from ARPRO Expanded Polypropylene, (EPP), black. 5000 series meeting ASTM D3575 and ASTM D48-1913; B6D7G4L3M24S2T17W7. The rings shall be manufactured using a high compression molding process to produce a finished density of 120 g/l ((7.5pcf). "Grade" adjustment rings may contain either an upper or lower keyway (tongue and groove) for vertical alignment and/or an adhesive trench on the underside with a flat top. The grade adjustment rings shall be capable of supporting the minimum requirements of AASHTO M-306, H-25 and HS-25, be UV stable and be resistant to chemicals and corrosion commonly associated with the sanitary and storm sewer environments. The rings shall be set with M-1 Adhesive/Sealant as recommended by the manufacturer between each ring, frame and/or top of structure.** [NS4] Any adjustment to the proposed structure required to match existing or proposed grade, shall be incidental to this item.

Frames and Grates shall have the phrase "Dump No Waste Drains to River" cast into them. Existing frames and grates being removed shall be delivered to 2185 Liberty St., Aurora, at the location shown by City personnel.

Payment will be made at the contract unit price EACH for STORM INLET of the diameter indicated, which shall include the cost of all excavation, weep holes, drainage fabric, backfill material and furnishing and installing the specified frame and grate, removal and disposal off site of existing storm structures (if present), sealing pipes with brick and mortar found to be connected to the existing structure being replaced as directed by the Engineer in the field, and connection of new or existing pipes to the new storm structure.

SP ST.6 – FIELD ADJUSTMENTS TO PROPOSED STORM STRUCTURES

This work shall consist of making modifications to new storm structures as required to facilitate changes in the proposed line and/or grade of the storm sewer. Such modifications may include saw cutting the pre-cast structure and installing brick and mortar in order to raise or lower one or more pipes entering or exiting the new manhole or saw cutting new openings. This work may also include saw cutting the proposed structure in order to lower the proposed rim elevation beyond the limits of the adjusting rings.

This work shall be paid for at the contract unit price per EACH (EA) for FIELD ADJUSTMENTS TO PROPOSED STORM STRUCTURES which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

SP ST.7 – FURNISH NEW FRAME AND LID

This work shall consist of furnishing and installing a new frame and watertight lid with concealed pickholes as specified on the Plans. The lid shall have the following words cast into the top, City of Aurora manholes shall have "City of Aurora" cast into the top, in two (2) inch high lettering. This item will be considered incidental to new or replacement structures and is only intended for replacement of existing frames with the frame and grate specified on the engineering Plans. **Type 1 frames shall be East Jordan 1050Z1 or approved equal and closed lids shall be East Jordan 1020A with two (2) concealed "EPIC" pickholes.**

Existing frames and lids being removed shall be delivered to 2185 Liberty St., Aurora at the location shown by City personnel.

Payment will be made at the contract unit price EACH for FURNISH AND INSTALL NEW FRAME & CLOSED LID, FURNISH AND INTSALL NEW FRAME & GRATE of the type specified in the Plans, and shall not include all work necessary to restore the adjacent surface.

5.7. SANITARY SEWERS

SP SN.1 – PVC PIPE MATERIAL AND TESTING

All PVC plastic pipe shall meet Fox Metro Water Reclamation District provisions and shall be installed and tested as follows:

Laboratory Test

Contractor shall submit certified copies of all reports of tests conducted by an independent laboratory before installation of PVC Plastic Pipe. Tests shall be conducted in accordance with Standard Method of Test for External Loading Properties of Plastic Pipe by ParallelPlate Loading, ASTM Standard D2412. Tests shall also be conducted in accordance with ASTM D 3212 to demonstrate joint performance at 5% maximum diametric deflection of the spigot, as specified in Article 7.4 of ASTM D 3212.

Straightness

Maximum allowable ordinate as measured from the concave side of the pipe shall not exceed 1/16 inch per foot of length.

Internal Diameter

Pipe shall be so constructed that the initial internal vertical diameter does not decrease by more than 5% in order to provide the complete hydraulic carrying capacity conceived by the design engineer, and to obtain the joint performance at 5% maximum diametric deflection as specified in Article 7.4 of ASTM D 3212.

Pipe Installation and Field Testing

Pipe shall be installed in full compliance with the Recommended Practice for Underground Installation of Flexible Thermoplastic Sewer Pipe, ASTM Standard D2321. All pipes constructed of polyvinyl chloride (PVC) shall be subject to air exfiltration, deflection, vacuum and televising test. In addition to the construction and testing procedures outlined in other sections of the specifications, the Contractor shall be required to install the pipe in such a manner so that the diametric deflection of the pipe shall not exceed 5% and the materials surrounding the pipe shall be compacted to the required Standard Proctor Densities outlined in D 2321. The area requiring compaction shall include the bedding and haunching material and also the material placed above the pipe for a distance of 12 inches over the top of the pipe. The Engineer may require up to 10 random compaction tests to be completed by an independent laboratory. If any of these tests indicate that the material has not been compacted to the required density, the Contractor shall re-compact said material at no additional cost to the Owner, and the Engineer shall then have the right to require additional compaction tests to ensure that this or other material is compacted to the proper density without any additional cost to the Owner.

Final Acceptance

All pipelines constructed of flexible materials shall be measured for vertical ring deflection at least 30 days after completion of the backfill. Maximum ring deflection of the pipeline under load shall be limited to 5 percent of the vertical internal pipe diameter. All pipe exceeding this deflection shall be considered to have reached the limits of their serviceability and shall be re-laid or replaced by the Contractor at no additional cost to the Owner.

The cost of all deflection testing shall be borne by the Contractor and shall be accomplished by using a deflectometer, which will produce a continuous record of pipe deflection, or by pulling a mandrel, sphere, or pin-type go/no-go device through the pipeline. The diameter of the go/no-go device shall be 95 percent of the undeflected inside diameter of the flexible pipe.

Deflection testing shall not be required for PVC pipe installed as part of a spot repair. Deflection testing will be incidental but only required in the event that the sewer installation extends from manhole to manhole.

SP SN.2 – CUT PROTRUDING TAP

This work shall be in accordance with NAASCO Sewer Pipe Cleaning Specification Guideline 1.4 Lateral Cuts insofar as applicable and the following provisions.

This work consists of cutting services that protrude into the sanitary sewer. The services shall be trimmed flush with the inside of the existing sewer. The debris generated by cutting the protruding service shall be removed from the sewer and disposed of properly.

This work shall be paid for at the contract unit price per EACH (EA) for CUT PROTRUDING TAP which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

SP SN.3 – CURED IN PLACE PIPE SEWER LINING

This work shall consist of installing a cured in place pipe (CIPP) liner within sanitary and storm sewers of various diameters at locations listed in the Plans, and as may be directed by the Engineer. It is the intent of this section to provide for the reconstruction of pipelines and conduits by the installation of a resin-impregnated flexible tube that is inverted into the original pipeline/conduit and expanded to fit tightly against said pipeline/conduit. The resin system shall then be cured by steam pressure within the tube to a sufficient enough level for the initiators in the resin to effect a thermosetting reaction. The CIPP shall be continuous and tight fitting. This work shall include all required material and labor for all related aspects of work including but not limited to: by-pass pumping, public notification, traffic control, pre-cleaning, sewer televising pre-installation and post installation, testing, etc.

This Special Provision references American Society for Testing and Materials (ASTM) Standard Specifications F1216, D5813 and D790 and D2990 which are made a part hereof by such reference and shall be the latest edition and revision thereof. In case of conflicting requirements between this Special Provision and these referenced documents, this Special Provision shall govern.

The Contractor shall be responsible for any and all damage to dwellings as a result of this work. This includes, but is not limited to, sanitary service backups and/or flooding as a result of jetting, light and heavy cleaning, and/or lining process.

The City has televised the sewers to be rehabilitated, and the reports may be provided upon request. Bidders can examine this information for whatever value they consider it worth. However, this information is not guaranteed (nor may it represent the current condition) and bidders are encouraged to perform their own investigations regarding the current condition of the sewers to be lined, location of services, and verify whether the services are active or inactive.

Cured-in-place pipe (CIPP): A hollow cylinder consisting of one or more layers of absorbent non-woven felt fabric surrounded by a cured thermosetting resin. This pipe is formed within an existing pipe. Therefore, it takes the shape of and fits tightly to the existing pipe.

The Contractor shall install a resin impregnated flexible felt tube, inverted into the existing sewer line utilizing a vertical inversion standpipe and hydrostatic head for the reconstruction of sanitary sewer lines. Curing shall be accomplished by steam pressure or other approved method to cure the resin into a hard impermeable pipe. When cured, CIPP shall extend over the length of the inversion in a continuous tight fitting watertight pipe-within-a-pipe.

Materials: The tube should be compatible with the resin system used. The material shall be able to withstand installation pressures, have sufficient strength to bridge missing pipe and stretch to fit irregular pipe sections and negotiate bends. The material shall be fabricated to a size that when installed will neatly fit the internal circumference and the length of the original conduit. Allowance shall be made for circumferential stretching during inversion. Overlapped layers of felt in longitudinal seams that cause lumps in the final product shall not be permitted.

The outside layer of the tube shall be coated with an impermeable, flexible membrane that will contain the resin and allow the resin impregnation procedure to be monitored. The tube shall be homogeneous across the entire wall thickness containing no intermediate or encapsulated elastomeric layers. No material shall be included in the tube that may cause delamination in the cured CIPP. No dry or unsaturated layers shall be evident. Seams in the tube shall be stronger than the non-seamed felt material.

The resin system shall be a corrosion resistant polyester, vinyl ester or epoxy system including all required catalysts, initiators or hardeners that when cured within the tube create a composite that satisfies 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. The resin shall produce a CIPP that will comply with the structural and chemical resistance requirements for this specification. The finished CIPP shall be fabricated from materials which when cured will be chemically resistant to withstand internal exposure to domestic sewage.

Structural Requirements: The CIPP shall be designed per ASTM F1216 and conform to the minimum structural standards of ASTM F1216 listed below. The liner thicknesses shall be designed based on a partially deteriorated pipe with a safety factor of 2, an ovality of 5%, and a maximum external water head level 2' below grade. An H20 highway live load shall be used in the design calculations for each CIPP section. The CIPP design shall assume no bonding to the original pipe wall.

CIPP	STANDARD	RESULTS
Flexural Stress	ASTM D790	4,500 psi
Modulus of Elasticity	ASTM D790	400,000 psi
Flexural Modulus (50 Yr)	ASTM D790	200,000 psi
Tensile Strength	ASTM D638	3,000 psi

The tube shall have a relatively uniform thickness that when compressed at installation pressures will equal or exceed the calculated minimum design thickness. The finished liner thickness of each CIPP liner shall exceed the "minimum design thickness" as determined by the formulas in ASTM F1216 and the design parameters set forth in these bid documents. **All 8" diameter CIPP shall have a 6 mm nominal installed thickness and all pipes greater than 8" in diameter shall have a minimum 6 mm finished thickness. All bidders shall have a minimum 3 years CIPP lining experience and installed a minimum of 250,000 lineal feet of CIPP.**

The layers of the CIPP shall be uniformly bonded. It shall not be possible to separate any two layers with a probe or point of a knife blade so that the layers separate cleanly or the probe or knife blade moves freely between the layers. If the layers separate during the field sample testing, new samples will be required to be obtained from the installed pipe. Any recurrence may cause rejection of the work.

Any layers of the tube that are not saturated with resin prior to insertion into the existing pipe shall not be included in the structural CIPP wall thickness computation.

Safety: The Contractor shall carry out their operations in strict accordance with all OSHA and manufacturer's safety requirements. See also the included Safety Special Provisions. Particular attention is drawn to those safety requirements involving working with scaffolding and entering confined spaces.

Cleaning of Sewer Line: It shall be the responsibility of the Contractor to remove all internal debris out of the sewer line, included but not limited to, grease, gravel, mud, solids, large deposits of debris, root growth, mineral deposits, bricks, tuberculation, corrosion, damaged lining material and others to restore the pipe to its original inside pipe diameter. This work includes "light" cleaning and the cost of doing the work shall be considered incidental to the CIPP SEWER LINING pay item.

Inspection of sewers: The inspection shall be performed by experienced personnel trained in locating breaks, obstacles and service connections, and able to identify excessive sanitary service flows by closed circuit television in accordance with Special Provision Closed Circuit T.V. Inspection. The Contractor shall be responsible for confirming the locations of all branch service connections.

Bypassing Sewage: Bypassing sewage shall be performed in accordance with the bypass pumping special provision and the cost of bypass pumping shall be incidental to the cost of the work on the pipe or manhole being bypassed.

Line Obstructions: There will be no point repair excavations. The Contractor shall remove any and all obstructions prior to the installation of the cured-in-place pipe liner, such as protruding service taps, root masses, mineral deposits, etc. Protruding taps or service connections shall be removed by cutting the protrusion flush with the pipe wall with a protruding tap cutter. In no circumstance shall the protrusion be broken off by mechanical means. All debris shall then be removed from the

system and properly disposed of at a permitted disposal facility. This work shall be paid for at the contract unit price per EACH for CUT PROTRUDING TAP IN SANITARY SEWER which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer. NS edit

Public Notification: The Contractor shall make every effort to maintain sewer service usage throughout the duration of the project. In the event that a connection will be out of service, the longest period of no service shall be 8 hours. A public notification program shall be implemented, and shall as a minimum, require the Contractor to be responsible for contacting each home or business connected to the sanitary sewer and informing them of the work to be conducted, and when the sewer will be off-line. The Contractor shall also provide the following:

1. Written notice to be delivered to each home or business at least 48 hours prior to the beginning of work being conducted on the section, and a local telephone number of the Contractor they can call to discuss the project or any potential problems.
2. Personal contact with any home or business, which cannot be reconnected within the time stated in the written notice.

Pipe Installation: Individual inversion runs can be made over one or more manhole sections.

The Contractor shall designate a location where the uncured resin in the original containers and the unimpregnated tube will be vacuum impregnated (wet-out) prior to installation. The volume of resin used shall be sufficient to fill the voids in the tube material at a nominal thickness and diameter. The volume shall be adjusted by adding excess resin for the change in resin volume due to polymerization and to allow for migration of resin into the cracks and joints of the original pipe. The Contractor shall allow the Owner to inspect the materials and wet out procedure. A resin and catalyst system compatible with the requirements of this method shall be used.

The wet out tube shall be inserted through an existing manhole or other approved access by means of an inversion process and the application of a hydrostatic head sufficient to fully extend it to the next designated manhole. The tube shall be inserted into the vertical inversion standpipe with the plastic membrane side out. At the lower end of the inversion standpipe, the tube shall be turned inside out and attached to the standpipe so that a leakproof seal is created. The inversion head will be adjusted to be of sufficient height to cause the impregnated tube to invert from manhole to manhole and hold the tube tight to the pipe wall, produce dimples at side connections and flared ends at the manholes. The use of a lubricant is recommended to reduce friction during inversion. Care shall be taken during the elevated curing temperature so as not to over stress the felt fiber. (In certain cases the Contractor may elect to use a top inversion. In this method the tube is pre-inverted to a distance that corresponds to the required inversion head and instead of attaching to an elbow at the base of the vertical inversion standpipe, it is attached to a top ring and the standpipe is formed from the tube itself).

Before the inversion begins, the Contractor shall provide the minimum pressure required to hold the tube tight against the existing conduit, and the maximum allowable pressure so as not to damage the tube. Once the installation has started, the pressure shall be maintained. Tube installation forces or pressures shall be limited so as not to stretch the tube longitudinally by more than 5% of the original length.

Curing: After inversion is completed, the Contractor shall supply a suitable heat source and recirculation equipment. The equipment shall be capable of delivering hot water or hot air throughout the section to uniformly raise the temperature above the temperature required to effect a cure of the resin. This temperature shall be determined by the resin/catalyst system employed.

The heat source shall be fitted with suitable monitors to gauge the temperature. Another such gauge shall be placed between the impregnated tube and the pipe invert at the remote manhole to determine the temperature during cure. The hot water or hot air temperature in the line during the cure period shall be recommended by the resin manufacturer.

Initial cure shall be deemed to be completed when inspection of the exposed portions of the pipe appear to be hard and sound and the remote temperature sensor indicates that the temperature is of a magnitude to realize an exotherm or cure in the resin. The cure period shall be of a duration recommended by the resin manufacturer, as modified for the CIPP process.

Cool Down: The installer shall cool the hardened pipe to a temperature below 100 degrees F. before relieving the static head in the inversion standpipe. Care shall be taken in the release of the static head so that a vacuum will not be developed that could damage the newly installed pipe.

Finish: The finished pipe shall be continuous over the entire length of an inversion run and be as free as commercially practicable from visual defects such as foreign inclusions, dry spots, pinholes, lifts and delaminations. If these conditions are present, the Contractor shall remove and replace the CIPP in these areas at the Contractor’s expense. The CIPP shall also meet the leakage requirements as specified in the testing section.

During the warranty period any defects which will affect the integrity or strength of the pipe shall be repaired at the Contractor’s expense.

Sealing CIPP at Manholes: All pipes shall be fitted with a hydrophilic gasket, as manufactured by LMK or equivalent, at both ends of each segment prior to installation of the liner.

Service Connections: When service connections are encountered, they shall be reinstated after the CIPP has been cured in place, and shall be done without excavation, and in the case of non-man entry pipes, from the interior of the pipeline by means of a television camera and a cutting device that re-establishes them to not less than 90 percent capacity and not more than 100 percent. The cost of reinstating services shall be paid for at the contract unit price per EACH for CIPP SERVICE LATERAL REINSTATEMENT. No additional payment will be made for excavations required for the purpose of reopening service connections and the Contractor will be responsible for all costs associated with such excavation and restoration work.

Service Lateral Lining: All work associated with the installation of the service lateral liner shall be in accordance with ASTM Designation F 2561-06 and shall include the use of a one piece main and lateral liner. This work shall include all material and labor to perform the product including but not limited to: by-pass pumping, public notification, traffic control, pre-cleaning, sewer televising pre-installation and post installation, testing, etc. The unit price for CIPP Service Lateral Liner shall also include the cost for 2 foot of 6" liner. This work shall be paid for at the contract unit price per EACH (EA) for CIPP SERVICE LATERAL LINER. Additional lining of 6" service laterals beyond the 2 foot included under CIPP Service Lateral Liner shall be paid for at the contract unit price per LINEAL FOOT (LF) for CIPP LINING, 6". The exact length of 6" liner will be determined by the Engineer after the Contractor has completed the televising and locating of the existing sanitary services.

Testing: The physical properties of the installed CIPP liner shall be verified through field sampling and laboratory testing. All testing shall be performed by an independent third-party laboratory in accordance with ASTM D790 to determine flexural strength and modulus of elasticity. The Contractor shall provide test samples taken from the actual installed CIPP liner at a minimum frequency of one sample location per 1,000 linear feet of installed liner. Samples shall represent the full, actual thickness of the fabricated liner. Flexural testing shall be conducted using five specimens with the smooth (inner) face of the liner placed in compression. Water tightness of the CIPP liner shall be monitored during the curing process while the liner is subjected to a positive hydraulic head.

Clean-Up: Upon acceptance of the installation work and testing, the Contractor shall reinstate the project area affected by his operations.

Acceptance: Upon completion, the installer will deliver videos of the completed work and a report to the City in a digital format. The Owner will review the documentation and the site to determine that the scope of work is complete and the work is satisfactory. The CIPP shall be guaranteed for a period of two (2) years after approval of the Final Payment. Acceptance of the work will be based upon televising of the liner in accordance with the Special Provisions for closed circuit TV inspection. The pipe will be televised before and after the installation of the CIPP, under no flow conditions. The tape shall show the date, upstream and downstream manhole numbers, and shall be stationed from the upstream manhole. The video tape shall be in color. No infiltration of groundwater should be observed. According to ASTM F1216-16, tensile strength testing will only be required for CIPP lining of pressure pipe.

CIPP Sectional Sanitary Sewer Lining: The CIPP sectional sanitary sewer lining shall be completed and installed in a manner that meets the full length cured in place sanitary sewer lining process except for these additional specifications: This repair will be accomplished using a liner tube of the length required to cover the identified defect (equal to or less than 10') with a thermo-set resin with physical and chemical properties appropriate for the application. The installation procedure shall conform to ASTM F2599-11 "Standard Practice for Sectional Repair of Damaged Pipe by Means of an Inverted Cured-In-Place Liner". The tube shall be positioned within a translucent inversion bladder vacuum impregnated with the resin, then placed inside a protective launching device and winched through the sewer pipe. The liner must be installed at low pressure (not to exceed 10-PSI) to prevent further damage to the host pipe. The flexural modulus of Elasticity shall meet or exceed 250,000 PSI. The inversion installation method will not be required as long as the modulus of Elasticity requirement is met.

Payment: This work shall be paid for at the contract unit price per FOOT (FT) for CIPP SEWER FULL LENGTH LINING or EACH (EA) for CIPP SEWER SECTIONAL LINING of the size and type specified in the contract.

SP SN.4 – SANITARY SEWER

This item consists of furnishing all labor, material, and equipment necessary to perform the work required under this Special Provision and in accordance with the details shown in the Plans, and as directed by the Engineer. Sanitary sewer work shall consist of hauling and distributing all pipes, castings, fittings, providing and installation of service wyes and/or tees, and shall also include the excavation of trenches to the required depth; sheeting, bracing and supporting the adjoining ground or structures as required or as needed to protect adjacent structures; provide barricades, guards and warning lights, laying and testing the pipe, tree and shrub removal and disposal, and backfilling and consolidating the trenches, dewatering the underlying soil stratum; cleaning and maintaining the streets or other surfaces over the trenches as required, relocation of power poles, street lights, and utility services, and maintaining the streets or other surfaces over the trenches as required.

Any disturbed or exposed lead water services shall be replaced from the water main to the meter and shall be replaced and paid for per applicable sections of the Water Main special provisions.

The Contractor will be required to maintain flow at all times during replacement of the sewers. This may be accomplished by supplying sufficient pumping capacity to bypass the construction area in accordance with the bypass pumping special provision. The Contractor will not be allowed to pump the sewage into storm structures. Before leaving the construction site at the end of each working day, the Contractor shall connect the new sewer to the existing one (by gravity) with the same or larger size connecting pipe. The Contractor shall follow the guidelines of the notification special provision if a temporary sewer service interruption occurs.

If unsuitable soil conditions are encountered, the Contractor shall be required to undercut the soil below the proposed sewer. The depth and limit of the undercut shall be determined by the Engineer. The Contractor shall be required to excavate to the depth determined by the Engineer and shall replace the excavated base with CA-1 or CA-7 as directed by Engineer. The excavated material shall be disposed of off-site in accordance with special provision DISPOSAL OF DEBRIS AND EXCAVATED MATERIAL. If the material requires dewatering prior to disposal, the Contractor shall stockpile the material to allow for dewatering. The costs associated with undercutting the proposed sewer including, excavation, shoring, hauling, dewatering, providing and backfilling with CA-1 or CA-7 shall be included in the bid unit price per CUBIC YARD (CY) for UNSUITABLE SOIL REMOVAL AND REPLACEMENT.

Sanitary sewers shall be constructed with PVC of the type and size called out on the Plans and/or contract.

For sanitary sewer repair, connection to the existing sanitary sewers shall be made using CNSS non-shear sewer couplings as manufactured by Cascade Water Works Mfg. Co. or approved equal. The coupling shall be constructed with an outer shell of T-304 (ASTM A-240/ASME SA-240) stainless steel with three stainless steel heavy duty worm gear fasteners (SAE J-1508 - MIL 5059-A) permanently welded in place and passivated per ASTM A-380. The shell shall fully encircle a 40 durometer ribbed gasket made from virgin SBR (ASTM D2000) rubber formulated for sewer service.

Contractor shall be obligated to open cut both ends of a proposed spot repair to allow the Engineer to obtain the elevation of the pipes and calculate the slope and verify the alignment.

The Contractor shall be responsible for tight sheeting, shoring, and/or bracing as required to protect adjacent structures.

Unless a new opening must be constructed, connection to existing manholes shall be made in accordance with the Details included with the Plans and shall be considered incidental to the contract. If a new opening must be constructed in the existing manhole, the work shall be paid for at the contract unit price per EACH for SANITARY STRUCTURE TAP of the size specified.

Payment shall be made at the contract unit price per FOOT (FT) for SANITARY SEWER, of the size and type specified, and shall include excavation, removal of the existing sewer if required, flow bypassing, providing and installation of service wyes and/or tees, and all other appurtenances, as described in this special provision and shown on the Plans and Details. Measurement for sanitary sewers will be made along the centerline of pipe with no deductions for fittings, bends, tees, or wyes. Where the sanitary sewer ends at a structure, measurement will be made to the inside wall of said structure. Where there is a change in size, measurement will be made to the center of the fitting.

Acceptance of the replaced sanitary sewers by the City shall be dependent upon the results of the closed-circuit television inspection as detailed in that special provision.

When the Plans call out for point repairs to be performed the work shall be paid for at the contract unit price per FOOT (FT) for SANITARY SEWER REMOVAL AND REPLACEMENT of the size specified.

SP SN.5 – SANITARY SERVICE CROSSINGS

This item consists of replacing sanitary services and risers due to crossing said services during the installation of storm sewers, water mains, and sanitary sewers, and reconnection of existing sanitary services to new or existing sanitary mains, in accordance with the details included in the Plans and as directed by the Engineer in the field.

The locations of any existing sanitary services painted on-site by private contractors are approximate and are not guaranteed to be correct or complete. Sanitary services are private utilities and will not be located by the City. The Contractor shall be responsible for locating all sanitary services in the field and repairing any damaged services. The Contractor should anticipate encountering inactive sanitary services and active sanitary services that are not shown on the Plans. The Contractor shall be responsible for determining whether or not services are active. The Contractor shall plug all inactive services unless directed otherwise by the Engineer. Locating services in the field, determining if services are active or inactive, and plugging inactive services within the limits of the excavation required for the proposed utility shall be considered incidental to the contract. In the event the Contractor is directed to remove a service at the point of connection with a sewer that is to remain, the work shall be performed and paid for in accordance with special provision REMOVAL/ABANDONING OF SEWERS AND/OR WATER MAINS.

When the existing service is found to be under the proposed pipe, the Contractor shall be required to probe for the existing service. If the existing service is found to be within two feet (2') below the proposed pipe, the Contractor shall remove and replace the existing service for a length of at least two feet (2') beyond the width of the proposed trench.

In the event of a break in a sanitary service and/or riser, the Contractor shall maintain the flow from the sanitary service at all times.

When a sanitary service repair is made outside of the roadway surface, the contractor shall install a sanitary service cleanout. The contractor shall be compensated $500 for the addition of this cleanout if applicable from Items Ordered By Engineer. This requirement is waived if there is an existing cleanout on the sanitary service.

Where grade conflict arises between existing services and the proposed improvements, the Contractor shall relay those services at the grade given by the Engineer in the field prior to the construction of the proposed pipe. The locations for this work may or may not be shown on the Plans. In the event that an unforeseen conflict may occur between the proposed work and an existing sanitary sewer or service, the Contractor will not be entitled to any additional compensation other than as provided within this special provision.

Contractor shall replace said services with PVC DR 18 C-900 pipe. All connections shall be made using CNSS non-shear sewer couplings as manufactured by Cascade Water Works Mfg. Co. or approved equal. The coupling shall be constructed with an outer shell of T-304 (ASTM A-240/ASME SA-240) stainless steel with three stainless steel heavy duty worm gear fasteners (SAE J-1508 - MIL 5059-A) permanently welded in place and passivated per ASTM A-380. The shell shall fully encircle a 40 durometer ribbed gasket made from virgin SBR (ASTM D2000) rubber formulated for sewer service. Inserts shall be provided to compensate for differences in the outside diameters of the new and existing pipes.

In the case of services crossing the storm sewer trench above the proposed conduit that are damaged during construction, the Contractor shall replace said services with PVC DR 18, C-900 pipe across the full width of the excavation and an additional distance on each side of the trench so that the connection to the existing service pipe material is on solid ground. However, in no case shall this additional distance on each side of the trench for said connections be less than 24 inches. The total length of the service to be replaced shall be determined by the Engineer in the field. All connections shall be made using non-shear sewer couplings.

Payment for the work specified herein shall be made at the contract unit price per FOOT (FT), measured in accordance with the details shown on the Plans for SANITARY SEWER SERVICE REMOVAL & REPLACEMENT, 6" replaced at grade or SANITARY SEWER SERVICE RELOCATION, 6" that have their grade altered to eliminate a utility crossing conflict.

SP SN.6 – SANITARY SERVICES AND TEE REPLACEMENT

This item consists of installing sanitary tees, risers, and making connection to existing services in areas where the existing tee shall be replaced due to a conflict with the proposed pipe. Tees replaced in conjunction with installation of a new sanitary sewer main will not be paid separately and shall be considered incidental to the cost per FOOT (FT) for SANITARY SEWER of the size and type specified.

Sanitary services, risers, fittings and tees, shall be of the type and material specified in the Plans and Specifications. Size shall be minimum 6" diameter. Connection to the existing sanitary service shall be made with non-shear sewer couplings. The couplings shall be furnished with suitable bushings to correct for the difference in pipe diameters (see detail shown on the Plans).

The location of the existing sanitary sewers and services shown on the Plans is approximate and is not guaranteed to be correct or complete. When required for relocation or replacement the Contractor shall be responsible for locating services in the field. The Contractor should anticipate encountering inactive sanitary services and active sanitary services that are not shown on the Plans. The Contractor shall be responsible for determining whether or not services are active, **and record the locations of all services encountered on the record drawings**. GPS shot comment The Contractor shall plug all inactive services unless directed otherwise by the Engineer. Locating services in the field, determining if services are active or inactive, and plugging inactive services shall be considered incidental to the contract.

In the event of a break in a sanitary service and/or riser, the Contractor shall maintain the flow from the sanitary service at all times.

The contractor shall install a sanitary service cleanout when a sanitary service repair or realignment is performed outside of all hardscape surfaces. The contractor shall be compensated $500 for the addition of this cleanout if applicable.

Non-Shear Sewer Coupling

Straight and transition couplings for sewer construction and repair shall be Style CNSS non-shear sewer couplings as manufactured by Cascade Water Works, Mfg. Co. of Yorkville, IL or equal. The coupling shall be constructed with an outer shell of T-304 (ASTM A-240/ASME SA-240) stainless steel with three stainless steel heavy duty worm gear fasteners (SAE J-1508 - MIL 5059-A) permanently welded in place and passivated per ASTM A-380. The shell shall fully encircle a 40 durometer ribbed gasket made from virgin SBR (ASTM D2000) rubber formulated for sewer service.

Tees

For service connections to existing sewers less than 8 inches in diameter, the tees shall be PVC as the same size and type as previously specified and shall be connected to the existing main with non-shear couplings, as previously specified.

For service connections to sewers equal to or greater than 8 inches in diameter, the service connection shall be "Inserta Tee" (or equal). In the event that a service connection to an existing brick sewer is required, the Contractor shall core drill and cement a 6" PVC pipe hub into place.

Payment for tees will be made at the contract unit price EACH for SANITARY SEWER REMOVAL AND REPLACEMENT, TEE of the size specified and of the same material as the sanitary service, constructed in accordance with the details shown on the Plans, including the cost of furnishing and installing the tee with or without riser, removal and replacement of existing service for a distance of up to five (5) feet measured horizontally from the sewer main, excavation, bedding, granular backfill and all appurtenances.

Payment for Inserta Tee shall be made at the contract unit price EACH for INSERTA TEE of the specified size, constructed and installed in accordance with manufacturer's recommendations which shall include the furnishing and installation of the Inserta Tee or pipe hub in the event the existing sewer is brick, with or without riser, excavation, bedding, granular backfill and all appurtenances.

Payment for sanitary service risers shall be made at the contract unit price EACH for SANITARY SERVICE RISER of the specified size, which shall include the furnishing and installation of the vertical riser pipe to grade, riser cap, excavation, bedding, granular backfill and all appurtenances. The wye connection for the rise shall be paid for as the horizontal distance of the wye at contract unit price per FOOT (FT) for SANITARY SERVICE or SEWER, of the size specified.

Additional Footage of Sanitary Services

Additional footage of 6" sanitary service shall be approved by the Engineer when minimum grade of 1/8" per foot beyond the five (5) feet included in SANITARY SEWER REMOVAL AND REPLACEMENT, TEE or INSERTA TEE cannot be obtained to connect to the existing service or where a sanitary service is relocated due to a grade conflict with a proposed conduit. The additional footage shall be paid for at the contract unit price per FOOT (FT) for SANITARY SEWER SERVICE RELOCATION, 6".

Location of Sanitary Wyes and Break-Ins

The City has acquired for its use, certain information relating to the location of wyes and break-ins in the existing sanitary sewers. This information is shown on the Plans and is based on sewer televising or record information. The Contractor shall use this information for whatever value they consider it worth, since locations are not guaranteed. Inactive break-ins and wyes are expected. The Contractor shall verify them by making contact with the residents of each property owner and having them flush a toilet and/or performing other investigations. When a sanitary service is found inactive, the Contractor shall plug the inactive service watertight with a factory made plug and record its location.

SP SN.7 – SANITARY MANHOLES

New sanitary manholes shall be constructed of pre-cast reinforced concrete in accordance with the detail included in the Plans. Pipe connections to the manholes and all lift holes shall be plugged water tight with an approved non-shrink grout. The manhole components shall be sealed watertight with 1"x1" butyl rope joint sealant, compressed to the manufacturer's specifications. The cast iron frame and adjusting rings shall be sealed with M-1 adhesive/sealant and in accordance with the manufacture's specifications. Each joint of all manhole sections shall be sealed with a minimum of two (2) one-inch wide strips of Butyl-Resin Sealant #CS-212. Each cone or barrel section joint shall be externally sealed with a 6" or 9" wide sealing band of rubber mastic. The band shall have an outer layer of rubber or polyethylene with an under layer of rubberized mastic (with a protective film), meeting the requirement of ASTM C-877, type II or type III. Pipe connections to all manhole openings (casted or core-drilled) shall be constructed with a

flexible rubber watertight connector conforming to ASTM C-923.

Each manhole shall be furnished with a cast iron frame and solid cover per the Plans. Frames shall be East Jordan 1050Z1 or approved equal within paved areas. In non-paved areas, the frame shall be East Jordan 1022Z1 or approved equal. The lids shall be East Jordan 1020AGS with two (2) concealed "EPIC" pickholes, a machined bearing surface, and watertight rubber gasket seal. City of Aurora manholes shall have "City of Aurora" cast into the top, in two (2) inch high lettering and FMWRD manholes shall have "Sanitary" cast into the top.

The structures shall be constructed with a minimum of 2" adjusting rings and allow for a maximum of 10" of adjusting rings. The use of concrete adjusting rings shall not be allowed and composite PRO-RING adjusting rings manufactured by Cretex Specialty Products or an approved equal shall be installed. The grade adjustment rings shall be manufactured from ARPRO Expanded Polypropylene, (EPP), black. 5000 series meeting ASTM D3575 and ASTM D48-1913; B6D7G4L3M24S2T17W7. The rings shall be manufactured using a high compression molding process to produce a finished density of 120 g/l ((7.5pcf). "Grade" adjustment rings may contain either an upper or lower keyway (tongue and groove) for vertical alignment and/or an adhesive trench on the underside with a flat top. The grade adjustment rings shall be capable of supporting the minimum requirements of AASHTO M-306, H-25 and HS-25, be UV stable and be resistant to chemicals and corrosion commonly associated with the sanitary and storm sewer environments. The rings shall be set with M-1 Adhesive/Sealant as recommended by the manufacturer between each ring, frame and/or top of structure. [NS3] Any adjustment to the proposed structure required to match existing or proposed grade, shall be incidental to this item.

Existing frames and lids being removed shall be delivered to 2185 Liberty St., Aurora at the location shown by City personnel.

This work shall include by-pass pumping. In the event that the installation of the new manhole is not being performed in conjunction with the installation of new sanitary sewers, the work and material required to connect the manhole to the existing sewers shall be included in this item.

Adaptor-Seal, Infi-Shield, CanUSA (wrapid seal), Flexrib or an approved equal external chimney seal shall be installed on all frames.

This work shall be paid for at the contract unit price EACH for SANITARY MANHOLES, of the type and diameter specified, which price shall include the cost of excavation, by pass pumping, connection to existing sewers, testing, backfill, surface restoration, frame and cover and all other appurtenances all in accordance with the Plans and these specifications.

SP SN.8 – TESTING OF SANITARY MANHOLES

Vacuum testing of each new manhole shall be carried out prior to backfilling. All lift holes shall be plugged with an approved non-shrink grout. No grout will be placed in the horizontal joints before testing. All pipes entering the manhole shall be temporarily plugged, taking care to securely brace the plugs from being drawn into the manhole. A vacuum of 10" Hg shall be placed on the manhole and the time measured for the vacuum to drop to 9" Hg. The vacuum shall not drop below 9" Hg for the following time periods for each size of manhole:

4 Ft. Dia.	60 seconds
5 Ft. Dia. and above	75 seconds

The Vacuum Tester shall be approved by the Engineering Division prior to use. Contractor shall provide all material and equipment necessary for testing. If testing fails, Contractor shall seal all leaks with material and methods as recommended by the Engineering Division and re-test until acceptable. It is recommended that this testing be done before backfilling so that any leaks can be found and fixed externally. The manhole frame and adjusting rings shall be in place when testing. Testing of manholes shall not be paid for separately but shall be considered incidental to the manhole installation.

SP SN.9 – CEMENT LINING OF INTERIOR WALLS

This specification describes all work, materials and equipment required for manhole rehabilitation for the purpose of eliminating infiltration and restoring manhole structural integrity. These objectives are to be accomplished by the installation of a spray-applied, cementitious monolithic liner to the walls, chimney and bench of the manholes.

Sprayable Cement Mortar shall be PERMACAST CR-9000QS as manufactured by AP/M Permaform, Quadex Aluminaliner as manufactured by Quadex, Inc., Strong-Seal MS-2C as manufactured by Strong-Seal System Corp., HCE Geopolymer as manufactured by Geospray, **Quadex GeoKrete Geopolymer Liner as manufactured by Vortex**, or approved equal. Only a contractor trained and licensed by the manufacturer will perform this application. The cementitious liner shall be used to form a structural/structurally enhanced monolithic liner covering all interior manhole surfaces and shall have the following minimum requirements:

Compressive Strength ASTM C-109	28 days	5000 psi
Flexural Strength	28 days	700 psi
Tensile Strength	28 days	600 psi
Shrinkage, ASTM C-157	28 days	0.04%
Bond (uniaxial tension)	28 days	130 psi

Contractor shall be responsible for all safety associated with this type of application in accordance with the Manufacturer's requirements and with OSHA regulations. The application is to be performed only by contractors trained and licensed by the manufacturer, and will include the following:

Surface Preparation

1. All manhole interior surfaces will be thoroughly cleaned by high pressure water blast, 3000 PSI minimum, to remove loose dirt, debris and foreign materials.
2. Brick surfaces will be sand-injection water blasted to remove surface glaze and to establish a suitable anchor profile. A temporary protective cover will be placed over the bottom of the manhole to prevent foreign materials from entering the sewage collection system.
3. After the cleaning phase, the manhole shall be prepared in accordance with the manufacturer’s recommendations.
4. All spent blast debris and waste material will be removed from the structure and disposed of at a permitted site prior to installation of the cementitious monolithic liner.
5. To verify the thickness of the monolithic liner, a minimum of sixteen (16) nails shall be inserted into the existing manhole as follows: four (4) nails each evenly spaced apart in the chimney, flat top, vertical center of manhole wall, and one (1) foot above the bench in the manhole wall. Holes shall be pre-drilled into the existing wall slightly larger than the diameter of the nail. Nails shall then be tapped into the wall, along with a bare copper wire, and adjusted to an exposure length of ±3/4 in. Installation of nails may be verified by the City prior to applying the cementitious monolithic liner.
6. Protective cover from bottom of the manhole will be removed.

Elimination of Active Infiltration:

a. All actively flowing leaks will be stopped by pressure chemical grouting, and filling faults with a non-shrink patching material before installation of the cementitious monolithic liner.
b. Filling any voids, cavities and/or missing bricks within and outside the brick manhole with the same cementitious product.
c. Rehabilitation work should be performed when ground water levels are as low as possible so that interference from ground water infiltration is minimized.
d. Materials used for plugging leaks must be designed, manufactured and intended for the purpose of controlling ground water infiltration into sewer manholes. Materials must be acceptable to the manufacturer of the monolithic liner.

Installation of Cementitious Monolithic Liner:

a. Thoroughly mix the cement material for approximately 3 minutes, using a specialty mortar mixer that is specifically designed for the purpose, at a ratio of 1.5 - 1.75 gallons of water per 75 lbs. of powder.
b. Application should not be made when substrate temperature is at or below 37 º F. or when there is a possibility that the substrate could reach 37º F. within 24 hours of application. Mixing temperatures of the cement material should not exceed 90 º F.
c. Surfaces to be lined must be thoroughly dampened with clean water until they are completely saturated. No running or dripping water should be present.
d. Using a pump system designed specifically for this purpose, apply the cement material in one spray coat to a finished minimum thickness of 1”.
e. Apply the cement material to all interior manhole surfaces from the bottom edge of the frame and continuing down over the bench to the invert waterline. Spray material on the bench area to a minimum thickness of 1”. Trowel to create a gradual slope toward the invert. This ensures that a seamless monolithic liner has been installed.
f. The Contractor shall spray the outer circumference of pipes entering and exiting the manhole. Caution shall be taken as to not spray the inside of said pip
g. The cement should be troweled or brushed after application to provide a smooth, even surface.

Inspection: In order to provide the quality control required for this work, the City may perform the following inspections:

a. An above ground inspection of each manhole after the surface preparation by the Contractor has been completed and no sooner than 24 hours prior to the inside spraying of the specified product.
b. An internal visual inspection of each manhole approximately one week after the cementitious monolithic liner has been completed. A rebound hammer test may be conducted, in accordance with ASTM C805, at random locations along the interior surface of the cementitious monolithic liner to check for compliance with the minimum strength requirements. A punch list will be provided to the Contractor shortly after, to perform any necessary repairs.
c. A final internal visual inspection, upon completion of the punch list work for the above item, for those manholes that failed the first inspection. If the work is found unsatisfactory, the Contractor shall re-do the work at no cost to the City.
d. The Contractor shall provide the personnel, equipment and devices to meet OSHA's safety requirements, in assisting the City in the above inspections.

Guarantee:

All work performed by the Contractor shall be guaranteed for a period of two (2) years after approval of final payment.

Payment shall be made at the contract unit price per VERTICAL FOOT (VF) for CEMENT LINING OF INTERIOR WALLS and measured upward from the invert of the pipe to the bottom of the frame, and shall include bypass pumping, manhole preparation, stopping infiltration, testing, equipment, labor, material and all other appurtenances.

SP SN.10 – CHIMNEY REHABILITATION IN PAVEMENT

The work shall be done in accordance with the detail shown on the Plans, and as follows.

A. Saw cut and remove pavement and subgrade.

B. Remove existing masonry between top of flat top and bottom of frame.

C. **Install new composite adjusting rings set in M-1 Adhesive/Sealant as described in SANITARY MANHOLE special provision.**[NS4]

D. Set existing or specified frame and lid to match the surrounding grade on a ready-to-apply butyl rope.

E. Install Adaptor-Seal, Infi-Shield, CanUSA (wrapid seal), Flexrib or approved equal external chimney seal.

F. Backfill with Class SI concrete per the detail.

G. Remove all debris from the bench and invert and dispose of at a permitted site.

H. Replace pavement and perform all other necessary and appurtenant work in accordance with the construction details shown on the Plans.

Payment shall be made at the contract unit price EACH (EA) for CHIMNEY REHABILITATION IN PAVEMENT and shall include all work necessary to restore existing paved surfaces, sidewalks, drive approaches, curb and gutter, and landscaping disturbed while completing this work item.

SP SN.11 – CHIMNEY REHABILITATION, NON-PAVEMENT

The work shall be done in accordance with the detail shown on the Plans, and as follows.

A. Remove top soil or gravel surface as required for rehabilitation. **Disturbance shall be kept to a minimum. No large equipment shall be used for excavation.**

A. Remove existing masonry between top of flat top and bottom of frame.
B. **Install new composite adjusting rings set in M-1 Adhesive/Sealant as described in SANITARY MANHOLE special provision.**[NS5]
C. Set existing or specified frame and lid to match the surrounding grade on a ready-to-apply butyl rope.
D. Install Adaptor-Seal, Infi-Shield, CanUSA (wrapid seal), Flexrib or approved equal external chimney seal.
E. Backfill with suitable excavated material. Mechanically compact backfill in accordance with the COMPACTION REQUIREMENTS special provisions.
F. Remove all debris from the bench/invert and dispose of at a permitted site.
G. Restore surface to meet the existing surface and perform all other necessary and appurtenant work in accordance with the construction details shown on the Plans.
H. **Grass restoration shall be in accordance with SEEDING – AURORA MIX special provision and work shall not be considered complete until a mowable weed-free stand of grass is obtained.**

Payment shall be made at the contract unit price EACH (EA) for CHIMNEY REHABILITATION, NON-PAVEMENT, and shall include all work necessary to restore existing paved surfaces, sidewalks, drive approaches, curb and gutter, and landscaping disturbed while completing this work item.

SP SN.12 – CHIMNEY REPAIR

Repair the chimney of an existing sanitary manhole by performing the following work:

A. Clean the substrate underneath the existing frame from loose material and dust.

B. Trowel in, flush with the inner surface of the existing frame a non-shrinkable quick-setting mortar, to fill all cavities, voids, crevices, etc. from the bottom of the frame down to a minimum of 24 inches of chimney. Apply waterproofing compound in accordance with manufacturer's recommendations.

C. Remove all debris from the bench and invert and dispose of at a permitted site.

Payment shall be made at the contract unit price EACH (EA) for CHIMNEY REPAIR, and shall include all work necessary to restore existing paved surfaces, sidewalks, drive approaches, curb and gutter, and landscaping disturbed while completing this work item.

SP SN.13 – LID REPLACEMENT

Replace lid with a new East Jordan 1020AGS watertight solid lid with two (2) concealed "EPIC" pickholes, and the following words cast into the top, City of Aurora manholes shall have "City of Aurora" and Fox Metro Water Reclamation District manholes shall have "Sanitary", and described as follows:

A. Investigate and obtain the dimensions of the existing frame for watertight fit of the new lid. The space tolerance on one side between the existing frame and the new lid shall be no more than 1/16" for a maximum total gap of 1/8" all around. The top surface of the new lid shall match exactly the top surface of the existing frame.
B. Clean the existing frame free of dirt and debris.
C. Furnish and install new lid.

Existing frames and lids being removed shall be delivered to 2185 Liberty St., Aurora at the location shown by City personnel.

Payment shall be made at the contract unit price EACH (EA) for LID REPLACEMENT which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

SP SN.14 – FURNISH NEW FRAME AND LID

Furnish and install a new frame and watertight lid with concealed pickholes as specified on the Plans. Frames shall be East Jordan 1050Z1 or approved equal within paved areas. In non-paved areas, the frame shall be East Jordan 1022Z1 or approved equal. The lids shall be East Jordan 1020AGS with two (2) concealed "EPIC" pickholes. The lid shall have the following words cast into the top, City of Aurora manholes shall have "City of Aurora" and Fox Metro Water Reclamation District manholes shall have "Sanitary". This item will be considered incidental to new or replacement structures, and payment is only intended for rehabilitation or repair related to CHIMNEY REHABILITATION IN PAVEMENT, CHIMNEY REHABILITATION OFF PAVEMENT, MANHOLE RECONSTRUCTION IN PAVEMENT, and MANHOLE RECONSTRUCTION OFF PAVEMENT.

Existing frames and lids being removed shall be delivered to 2185 Liberty St., Aurora at the location shown by City personnel.

Adaptor-Seal, Infi-Shield, CanUSA (wrapid seal), Flexrib or an approved equal external chimney seal shall be installed on all frames.

Payment will be made at the contract unit price EACH (EA) for FURNISH AND INSTALL NEW FRAME AND LID, and shall include all work necessary to restore existing paved surfaces, sidewalks, drive approaches, curb and gutter, and landscaping disturbed while completing this work item.

SP SN.15 – RESET EXISTING FRAME

The work shall be done in and off pavement in accordance with the details shown on the Plans, and as follows.

A. Saw cut and remove pavement or remove existing dirt around frame. **Disturbance shall be kept to a minimum. No large equipment shall be used for excavation in the grass.**
B. Clean top of flat top to obtain flat surface.
C. Set existing frame and lid to match the surrounding grade using **new composite adjusting rings set with M-1 Adhesive/Sealant as described in SP SN.7.** [NS6]
D. Install Adaptor-Seal, Infi-Shield, CanUSA (wrapid seal), Flexrib or approved equal external chimney seal.
E. Backfill with Class SI concrete if located in pavement per the detail. Mechanically compact backfill in accordance with the COMPACTION REQUIREMENTS special provision if located outside of pavement.
F. Remove all debris from the manhole bench and invert and dispose of it at a permitted site.
G. Restore surface to meet the existing surface and perform all other appurtenant work in accordance with the construction details shown on the Plans **Grass restoration shall be in accordance with SEEDING – AURORA MIX special provision and work shall not be considered complete until mowable weed-free stand of grass is obtained.**

Payment shall be made at the contract unit price EACH (EA) for RESET EXISTING FRAME AND LID and shall include all work necessary to restore existing paved surfaces, sidewalks, drive approaches, and curb and gutter, and landscaping disturbed while completing this work item.

SP SN.16 – REMOVE AND REPLACE MANHOLE BENCH

The work shall be done in accordance with the details shown on the Plans, and as follows.

A. Re-route the sewage flow temporarily with by-pass pumps during the construction and curing time as needed.

B. Remove existing bench to the bottom slab of the manhole.

C. Clean bottom of the manhole.

D. Pour Class SI concrete by forming channels with the use of thin-walled PVC pipe (shall be considered incidental to bid item) to conform accurately to the sewer's size. Shape smoothly with well-rounded junctions in conformance with details shown on the Plans and to the Engineer's satisfaction.

E. Remove and dispose of all debris including the disposable thin-walled PVC pipe. Engineer must witness the removal of the PVC pipe. The debris shall be disposed of at a permitted site.

Payment shall be made at the contract unit price EACH (EA) for REMOVE AND REPLACE MANHOLE BENCH, as type specified which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

SP SN.17 – MANHOLE RECONSTRUCTION IN PAVEMENT

Reconstruct the manhole in accordance with the detail shown on the Plans, to the depth below grade as indicated in the Manhole Rehabilitation Schedule and described as follows:

A. Remove the existing structure to the depth specified. Limit the excavation to minimum. Contractor shall verify with the Engineer the depth of reconstruction prior to commencing the work.
B. Furnish and install precast manhole sections and adjusting rings on a ready-to-apply butyl rope.
C. Wrap each external manhole and barrel section joint.
D. Make sure that steps in the new precast sections align with existing steps and are equally spaced vertically at a minimum distance of 16 inches. If there are no steps in the remaining sections of the existing manhole, no steps will be required in the new precast sections.
E. Set existing frame and lid to match the surrounding grade using **new composite adjusting rings set with M-1 Adhesive/Sealant as described in SANITARY MANHOLES.**
F. Install Adaptor-Seal, Infi-Shield, CanUSA (wrapid seal), Flexrib or approved equal external chimney seal in sanitary and combined sewers.
G. Backfill with Class SI concrete per the detail.
H. Remove all debris from the manhole bench and invert and dispose of it at a permitted site.
I. Replace pavement and perform all other necessary and appurtenant work in accordance with the details shown on the Plans.

Existing frames and lids being removed shall be delivered to 2185 Liberty St., Aurora at the location shown by City personnel.

Payment shall be made at the contract unit price per VERTICAL FOOT (VF) for MANHOLE RECONSTRUCTION IN PAVEMENT, measured downward from the top of the frame to the lowest removed section, and shall include all work necessary to restore existing paved surfaces, sidewalks, drive approaches, and curb and gutter, a new frame and grate if specified in the Plans and landscaping disturbed while completing this work item.

SP SN.18 – MANHOLE RECONSTRUCTION, NON-PAVEMENT

Reconstruct the manhole in accordance with the detail shown on the Plans, to the depth below grade as indicated in the Manhole Rehabilitation Schedule and described as follows:

A. Remove the existing structure to the depth specified. Limit the excavation to minimum. Contractor shall verify with the Engineer the depth of reconstruction prior to commencing the work.
B. Furnish and install precast manhole sections and adjusting rings on a ready-to-apply butyl rope.
C. Wrap each external manhole and barrel section joint
D. Make sure that steps in the new precast sections align with existing steps and are equally spaced vertically at a minimum distance of 16 inches. If there are no steps in the remaining sections of the existing manhole, no steps will be required in the new precast sections.
E. Set existing frame and lid to match the surrounding grade using **new composite adjusting rings set with M-1 Adhesive/Sealant as described in SANITARY MANHOLE special provision.**[NS7]
F. Install Adaptor-Seal, Infi-Shield, CanUSA (wrapid seal), Flexrib or approved equal external chimney seal in sanitary and combined sewers.
G. Backfill with suitable excavated material. Mechanically compact backfill in accordance with the COMPACTION REQUIREMENTS special provision.
H. Remove all debris from the manhole bench and invert and dispose of it at a permitted site.
I. Restore surface to meet the existing surface and perform all other necessary and appurtenant work in accordance with the details shown on the Plans.
J. **Grass restoration shall be in accordance with SEEDING – AURORA MIX special provision and work shall not be considered complete until mowable weed-free stand of grass is obtained.**

Existing frames and lids being removed shall be delivered to 2185 Liberty St., Aurora at the location shown by City personnel.

Payment shall be made at the contract unit price per VERTICAL FOOT (VF) for MANHOLE RECONSTRUCTION, NON-PAVEMENT and measured downward from the top of the frame to the lowest replaced section, and shall include all work necessary to restore existing paved surfaces, sidewalks, drive approaches, and curb and gutter, a new frame and grate if specified in the Plans and landscaping disturbed while completing this work item.

SP SN.19 – CCTV SEWER INSPECTION

This work shall be in accordance with NAASCO Pipe Condition Assessment Using CCTV Guideline Specification 1.1 Scope of Services and Working Phase insofar as applicable and the following provisions.

Prior to the City accepting new storm and sanitary sewer, the Contractor shall CCTV the storm and sanitary sewer, and the interior of each new lateral from the point of connection with the main. The CCTV inspection shall be performed from manhole to manhole with each lateral referenced from the upstream manhole.

The CCTV inspection shall be performed by an operator that is PACP certified according to NASSCO. All Operator's certifications shall be provided to the City.

In addition to televising the new storm and sanitary sewers, the Engineer may direct the Contractor to CCTV additional sewers during the project.

Prior to the CCTV inspection the Contractor shall flush and clean all sewers. The Contractor shall be responsible for the disposal of all solids or semi-solids resulting from the cleaning operations. Any cleaning that exceeds the efforts of "Light" cleaning shall be paid for as HEAVY SEWER CLEANING.

The camera used for the inspection shall be one specifically designed and constructed for sewer inspections. Lighting for the camera shall be suitable to allow a clear picture of the entire periphery of the pipe. The camera shall have a rotating head and shall be operative in 100 percent humidity conditions. The camera, monitor and other components of the video system shall be capable of producing a minimum 500 line resolution video picture in color. Picture quality and definition shall be to the satisfaction of the Engineer and if unsatisfactory, shall be redone at no cost to the City.

The inspection shall be done one manhole section at a time, and the flow in the section being inspected shall be suitably controlled. The camera shall be moved through the line from the upstream manhole to the downstream manhole at a uniform rate, stopping when necessary to ensure proper documentation of the sewer's condition, but in no case will the camera be moved at a speed greater than 30 feet per minute. **Televising shall be completed in the downstream direction unless approved by the Engineer**. Manual winches, power winches, TV cable and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions shall be used to move the camera through the sewer line.

Measurement of any defects, connections, etc. as described in the following report shall be accurate to two tenths (0.2) of a foot over the length of the section being inspected.

Electronic copies of the reports shall be provided to the Engineer in pdf format. Reports shall clearly show the location, in relation to adjacent manholes, of points of significance such as locations of building sewer connections, unusual conditions, roots, storm and/or sanitary sewer connections, collapsed sections, presence of scale and corrosion, and other discernible features. **Each manhole shall be identified by numbers pre-selected by the Engineer and depths of the manholes shall be recorded.**

Electronic copies of the videos shall be provided to the Engineer of sections televised. **Videos and reports shall be provided to the Engineer bi-weekly.**

If this work is subcontracted to others, the City shall require approval of said Subcontractor.

The Closed Circuit TV Inspection required following the installation of sanitary sewer cured in place pipe lining will not be paid for separately, but shall be considered incidental to the lining process

Televising of sewers shall be paid for at the contact unit price per FOOT (LF) for SANITARY or STORM SEWER TELEVISING, of the size specified, measured from centerline manhole to centerline manhole.

SP SN.20 – BYPASS PUMPING

When work is to be performed on live, active sanitary sewers, the Contractor shall be required to by-pass the sewage flows around the area. Prior to any work being performed under this work item, the Contractor shall submit a detailed plan for the sewage by-pass system for review and approval by the City of Aurora and Fox Metro Water Reclamation District. The Contractor shall not be allowed to plug the sanitary services without approval of the proposed bypass system. The bypass shall be made by plugging the line at an existing upstream manhole and pumping the flow into a downstream manhole or adjacent wastewater system.

If the sewer is found under surcharged condition, the Contractor shall be responsible to flush all downstream lines to lower the flow in order to perform the work.

The Contractor shall make every effort to maintain sewer service usage throughout the duration of the project. The Contractor may choose to work during off business hours to accommodate the residents and businesses upon approval from the City. It shall be the responsibility of the Contractor to notify all residences and businesses at least 48 hours in advance before proceeding with the work.

When the by-pass pumping configuration involves a combined sewer system, the Contractor shall not begin the lining process if there is rain forecast during the duration of the lining process requiring by-pass pumping.

The Contractor shall submit to the City a detailed plan and descriptions outlining all provisions and precautions to be taken by the Contractor regarding the handling of existing wastewater flow. This plan must be specific and complete, including such items as schedules, locations, elevations, capacities of equipment, materials and all other incidental items necessary and/or required to ensure proper protection of the facilities, including protection of the access and bypass pumping locations from damage due to the discharge flows, and compliance with the requirements specified in these Contract Documents. The plan shall include but not be limited to details of the following:

- Staging areas for pumps including traffic control;
- Sewer plugging method and types of plugs;
- Number, size, material, location and method of installation of suction piping;
- Number, size, material, method of installation and location of installation of discharge piping;
- Bypass pump sizes, capacity, number of each size to be on site and power requirements;
- Calculations for selection of bypass pumping pipe size and of static lift, friction losses, and flow velocity;
- Standby power generator size, location;
- Method of protecting discharge manholes or structures from erosion and damage;
- Thrust and restraint block sizes and locations;
- Method of noise control for each pump and/or generator;
- Any temporary pipe supports and anchoring required;
- Schedule for installation of and maintenance of bypass pumping lines;

All pumps used shall be fully automatic self-priming units that do not require the use of foot-valves or vacuum pumps in the priming system. The pumps may be electric or diesel powered. All pumps used must be constructed to allow dry running for long periods of time to accommodate the cyclical nature of effluent flows. The Contractor shall provide the necessary stop/start controls for each pump.

In order to prevent the accidental spillage of flows all discharge systems shall be temporarily constructed of rigid pipe with positive, restrained joints. Under no circumstances will aluminum "irrigation" type piping or glued PVC pipe be allowed. Discharge hose will only be allowed in short sections and by specific permission from the City.

Bypass pumping systems shall have sufficient capacity to pump the anticipated peak flows of the existing sanitary sewer pipe. The Contractor shall provide all pipeline plugs, pumps of adequate size to handle peak flow, and temporary discharge piping to ensure that the total flow of the main can be safely diverted around the project area. The bypass pumping system will be required to be operated 24 hours per day. The bypass pumping system shall be capable of bypassing the flow around the work area and of releasing any amount of flow up to full available flow into the work area as necessary for satisfactory performances of work. The Contractor shall have adequate standby equipment available and ready for immediate operation and use in the event of an emergency or breakdown.

The Contractor will not be permitted to stop or impede the main flows under any circumstances. The Contractor shall maintain sewer flow around the work area in a manner that will not cause surcharging of sewers, damage to sewers and that will protect public and private property from damage and flooding. The Contractor shall be responsible for all physical damage to all local sewer lines caused by human or mechanical failure. The Contractor shall protect water resources, wetlands and other natural resources.

The Contractor shall inspect bypass pumping system as needed to ensure that the system is working correctly. The Contractor shall ensure that the temporary pumping system is properly maintained and a responsible operator shall be on hand at all times when pumps are operating.

Plugging or blocking of sewage flows shall incorporate a primary and secondary plugging device. When plugging or blocking is no longer needed for performance and acceptance of work, it is to be removed in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream. The cost of bypass pumping shall be incidental to the cost of the pipe installation/lining, or manhole being bypassed.

The Contractor shall provide proper traffic control when bypass pumps are crossing intersections preventing vehicles from driving through. Traffic control shall include detour signage if needed and shall be considered incidental to the Contract.

SP SN.21 – PRESSURE TESTING SANITARY SEWER JOINTS

The Contractor shall be required to individually air test all new sanitary sewer joints replaced in the section between two manholes and for partial replacements of 40 feet in length or more.

The joints in the sanitary sewer shall be pressure tested by applying pressure equivalent to static water head of 2/3rd average depth of sanitary sewer to the joint. In no case will this pressure be less than 4.5 psig. After the required pressure has been applied to the joint, the applied pressure shall be shut off and the pressure observed for 30 seconds. If the pressure drops 1 psig within 30 seconds, then the joint shall be considered to be defective. Failed joints shall be adequately grouted and the pressure test shall be performed again. If the pressure test of the joint continues to fail, necessary repairs shall be made and the air test repeated until satisfactory results are obtained.

This work shall be paid for at the unit price per EACH (EA) for PRESSURE TESTING SANITARY SEWER JOINTS as specified in the Plans which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

SP SN.22 – LOCATE AND TELEVISE SEWER LATERAL

This work shall be in accordance with NAASCO Pipe Condition Assessment Using CCTV Guideline Specification 1.1 Scope of Services and Working Phase insofar as applicable and the following provisions.

The Contractor will be provided with a list of individual sewer laterals to be located with depths provided at the location of a proposed utility trench. The Contractor will be given a length from the sanitary main where the proposed utility trench will be located. In addition, at locations where a lead water service is being replaced, the Contractor will typically be asked to locate the sewer lateral all the way to the house.

A few locations may require CCTV inspection of a sewer lateral as a post construction check to confirm the sewer lateral was not damaged during the construction project, the length to be televised in this case will average 20'-30'.

The Contractor shall use a lateral evaluation television system to CCTV inspect the requested sewer laterals which shall have the ability to provide a depth measurement of up to 10' deep. The Engineer will provide one list of services to be televised so that this pay item can be completed at one time. All laterals will have a minimum diameter of six (6) inches.

This activity shall be paid for at the contract unit price per FOOT (LF) for LOCATE AND TELEVISE SEWER LATERAL, measured from the main to the location requested by the Engineer.

SP SN.23 – DISCONNECT AND ABANDON EXISTING SEWER CONNECTION

The Contractor shall disconnect and abandon the existing sewer at the locations shown on the Plans or as directed by the Engineer in the field.

At locations where the sewer is to be disconnected from an existing manhole, the Contractor shall plug the sewer from the inside of the manhole with concrete bricks and non-shrink mortar a minimum of 12" thick.

For pipes that are to be disconnected from the existing sewer, the Contractor shall abandon the connection by one of the following methods below:

- The Contractor shall excavate and disconnect the abandoned sewer pipe from the existing sewer in accordance with the SANITARY SEWER special provision.
- The Contractor shall install a cured in place pipe liner to cover the existing opening to be abandoned. The internal pipe liner shall be installed in accordance with CURED IN PLACE PIPE SEWER LINING special provision.

For sewers and lateral services (tee) being disconnected from an existing brick sewer, the Contractor shall abandon the existing connection by removing the pipe or tee at the location of the connection and shall patch the opening in the existing brick sewer with concrete bricks and non-shrink grout.

If at any point during construction, the end of an abandoned sewer has been exposed, the end of the pipe shall be plugged with concrete bricks and non-shrink mortar, this is considered incidental to the Contract.

The disconnection and abandonment of existing sewers and connections within manholes or within areas identified in the Plans for excavation shall not be paid for separately but shall be considered incidental to the Contract. When the limits of the disconnection and abandonment fall outside the limits of the excavation for new improvements, the Contractor shall be paid at the contract unit price as specified below.

The disconnecting and abandoning of sewer shall be paid for at the contract unit price per EACH (EA) as DISCONNECT AND ABANDON EXISTING SEWER CONNECTION, and shall include all equipment, labor, and material necessary to complete the work.

The plugging of the sewer pipe openings to be abandoned within a manhole to remain in place and as identified on the Plans shall be paid for at the contract unit price per EACH (EA) as MANHOLE INVERTS TO BE BRICK AND MORTARED, and shall include all equipment, labor, and material necessary to complete the work.

If any sewer is called out on the Plans or directed by the Engineer in the field to be filled with Controlled Low Strength Material (CLSM), the work shall be paid for at the contract unit price per CUBIC YARD (CY) for FILLING EXISTING SEWER OR WATER MAIN WITH CLSM.

Select Granular Trench Backfill shall be considered incidental to the DISCONNECT AND ABANDON EXISTING SEWER CONNECTION pay item.

5.8. WATER MAIN

SP W.1 – WATER MAIN INSTALLATION

This item consists of furnishing all labor, materials, and equipment necessary to perform the work required under this Special Provision and shall be in accordance with the Specifications, the Plans, and as directed by the Engineer. It shall consist of providing, hauling and distributing all pipe, castings, fittings, and accessories and shall also include the excavation of trenches to the required depth; sheeting, bracing and supporting the adjoining ground or structures where necessary; dewatering; provide barricades, guards and warning lights; restrained joints; V-bio polyethylene encasement; laying and testing the pipe, castings, fittings, and accessories, backfilling and consolidating the trenches; dewatering the underlying soil stratum; relocation and/or bracing of power poles and street lights; cleaning

and restoration of the work site and maintaining the streets or other surfaces over the trenches as required. The water main shall be laid to meet all vertical and horizontal separation requirements as described in section 41-2.01 of the Standard Specifications for Water and Sewer Construction in Illinois, latest edition, as amended and the separation details provided in the improvement Plans.

All appropriate parts shall be lead free and be stamped “NL”. Any variation from the special provisions below should be approved by the Engineering Division prior to installation.

All contamination preventive measures, pressure testing, preliminary flushing, chlorination, and bacteriological sampling of the water main shall be conducted under the supervision of the City of Aurora’s Engineering Division or its designated representative. The installation Contractor shall notify the City of Aurora’s Engineering Division or its designated representative a minimum of 48 hours in advance of each of the following activities: starting construction of a project, scheduling shutdowns, connections, pressure testing, preliminary flushing, chlorination, and bacteriological sampling of any water main piping. Refer to the separate special provisions regarding each of those activities.

Contamination Preventive Measures During Construction

Soil, organic matter, and other heavy material typically contain bacteria and can prevent even high concentrations of chlorine from contacting and killing the organisms. These bacteria can cause failure of bacteriological sampling. Preventing these types of materials from entering water main pipe either during or before installation is critical. Preventive measures are described in detail in AWWA Standard C651-14 Section 4.8. At a minimum, the following preventive measures shall be followed during water main pipe installation:

1. *Keep pipe clean and dry*. The interiors of pipes, fittings, and valves shall be protected from contamination. All openings in the pipeline shall be closed watertight or with rodent-proof plugs when pipe laying is stopped at the close of the day’s activities or for other reasons.
2. *Joints*. Joints of all pipe in the trench shall be completed before work is stopped.
3. *Cleaning and swabbing*. If dirt or other foreign material enters the pipe, it shall be removed and the interior of the pipe surface swabbed with a 1 to 5% sodium hypochlorite (NaOCl) disinfecting solution. If in the opinion of the City of Aurora Engineering Division, or its designated representative, the foreign material in the pipe will not be removed by preliminary flushing activities, the interior of the pipe shall be cleaned using mechanical means at no additional cost to the City of Aurora and then swabbed as described above.

Brass wedges shall be installed per Section 41-2.05D of the Standard Specifications for Water and Sewer Construction in Illinois, latest edition, as amended.

The Contractor shall be required to keep existing water mains in service until the existing service connections are transferred to the newly installed water main. Any work associated with temporarily capping or disconnecting existing mains, or installing temporary services shall be considered incidental to the contract and shall not be paid for separately unless the activity requires a separate dig location/occurrence and is specified on the improvement Plans and bid schedule. **Reducing the pressure in the water main below 20 PSI will result in the issuance of a precautionary boil order to all services connected to that section of the water main. The engineer may provide direction or the improvement plans may show the proposed steps to be taken to avoid dropping the pressure below this threshold which may necessitate the use of a line stop or the installation of an inserta-valve at specific locations.** Prior to performing any water main shutdowns, the Contractor shall assist the City with notifying any affected residents or businesses per the NOTIFICATION special provision.

Specification references made herein for manufactured materials such as pipe, fittings, valves and hydrants refer to designations for AWWA, or to ANSI, as effective on the date of call for bids.

Unless specified in the pay items or on the Plans, Ductile Iron Water Main (DIWM) shall be used for all water mains in this project. Ductile-iron pipe for water mains shall conform to ANSI Specification A21.51 or AWWA C151. Class 52, thickness designation, casting, marking, testing, etc. shall be provided in accordance with applicable ANSI or AWWA standards.

Zinc Pipe Coating

The exterior of the ductile iron pipe shall be coated with arc-sprayed zinc. The mass of zinc is to be 200 g/m^2 of surface area. A bituminous top coat shall be provided on top of the zinc. Zinc coating shall meet ISO 8179 except where noted within the specifications. The zinc coating of the water main shall be included in the lineal foot unit price of the water main.

All ductile-iron pipe and appurtenances shall be protected against corrosion with V-bio polyethylene wrapping in accordance with AWWA C-105-82 and the Protection Against Corrosion special provision.

Cement lining shall be included in accordance with ANSI A21.4 (AWWA C-104). All pipe and fittings shall be cement mortar lined in the shop with centrifugally spun lining in accordance with AWWA C205-85 or cement mortar lined mechanically in accordance with AWWA C602-83. Use ASTM C150, Type II, cement for lining. Field joints shall be made in accordance with AWWA C205, Appendix A.

Pipe joints shall be either mechanical or push-on (rubber gasket) type as recommended by the pipe manufacturer. Restrained joints shall be of the type recommended by the pipe manufacturer and approved by the Engineer. Backfilling and bedding shall be accomplished in accordance with Trench Details shown within these Plans.

Water Main Steel Casing – Bore and Jack

The Contractor shall furnish and install steel casing pipe of the diameter and minimum wall thickness specified at the locations shown on the plans and in accordance with the notes and specifications shown on the plans, and the special provisions. The steel casing pipe shall be installed by boring and jacking.

Water main shall be centered within the casing pipe and be supported by stainless steel casing spacers. Casing spacers and casing end seals are considered incidental to the STEEL CASING PIPE, BORE AND JACK. The cost of installing the water main inside the casing pipe shall be paid for at the contract unit price per FOOT (FT) for WATER MAIN of the diameter and type specified. Dewatering, if required, shall be considered incidental to the contract.

Direction of pipe boring and jacking shall be determined by the Contractor. Location of boring and receiving pits shall be proposed by the Contractor and approved by the Engineer prior to working beginning. No additional compensation will be provided due to conflicts with utilities shown on the plans.

This work shall be paid for at the contract unit price per foot for STEEL CASING PIPE, BORE AND JACK, of the diameter and wall thickness specified, which price shall include all labor, material, and equipment needed to properly install the casing pipe.

Laying of Pipe

The pipe shall be installed so that the entire length of pipe shall have full bearing. The bedding shall be shaped such that the pipe is uniformly supported over its entire length.

Installation of the water main pipe shall be accomplished to line and grade in the trench only after the bedding has been completely de-watered and is free of mud, loose silt, or foreign material. All foreign material shall be kept out of the pipe.

Dirt or other foreign material shall be prevented from entering the pipe or pipe joint during handling or laying operations and any pipe or fitting that has been installed with dirt or foreign material in it shall be thoroughly cleaned. At times when pipe installation is not in progress, and at the end of each working day, the open ends of the pipe shall be closed by a water-tight plug to ensure absolute cleanliness inside the pipe.

Water Main Restraint – Mechanical Joint Restraint

In lieu of thrust blocking, joint restraint systems such as a mechanical joint fitting or a joint restraint gasket can be utilized for restraining the system and shall be installed to the lengths specified in the Minimum Restraint Length (ft) on both sides of the Fitting detail located in the improvement Plans. Field Lok 350 Gaskets or an approved equal shall be utilized for the joint restraint gaskets. All nuts, bolts, and threaded rods shall be stainless steel, Grade 304 bolts and Grade 316 nuts.

Water Main Restraint – Thrust Blocking

Additionally, the Contractor may install thrust blocking to prevent movement of lines under pressure at bends eleven and one-quarter (11¼) degrees and greater, tees, caps, valves and hydrants shall be precast or poured Portland cement concrete, rated at 3500 psi, a minimum of twelve (12") thick. Stainless steel tie rods are to be used in addition to blocking on all fittings and shall be anchored in such a manner that pipe and fitting joints will be accessible for repairs. Poured concrete shall not hinder access to metal fittings and bolts or hydrant drainage. All nuts, bolts, and threaded rod shall be stainless steel. When used for restraint, the thrust blocking and tie rods shall be considered included in the cost of the water main.

Installation of Mechanical Joints for Ductile Iron Pipe

The outside of the spigot and the inside of the bell of mechanical joint pipe shall be thoroughly cleaned to remove all foreign matter from the joint. The cast iron gland shall then be slipped on to the spigot end of the pipe with lip extension of the gland toward the socket or bell end. The rubber gasket shall be placed on the spigot end with the thick edge toward the gland. The pipe shall be pushed forward to completely seat the spigot end in the bell. The gasket shall then be pressed into place within the bell, being careful to have the gasket evenly located around the entire joint. The cast iron gland shall then be moved along the pipe into position and bolted.

Nuts spaced 180 degrees shall be tightened alternately to AWWA C-600 Standards in order to produce an equal pressure on all parts of the gland.

Jointing Gasket Joint Pipe (AWWA C111, AWWA C900, AWWA C200, ASTM F477, AWWA C950)

The inside of the bell shall be thoroughly cleaned to remove all foreign matter from the joint. The gasket shall be inserted in the gasket seat provided.

A thin film of gasket lubricant shall be applied to inside surface of the gasket. Gasket lubricant shall be a solution of vegetable soap or other solution supplied by the pipe manufacturer and approved by the City. The spigot end of the pipe shall be cleaned and entered into the rubber gasket in the bell, using care to keep the joint from contacting the ground. The joint shall then be completed by forcing the plain end to the seat of the bell. Care must be taken not to damage exterior or interior lining when joining the pipe. Field cut pipe lengths shall be beveled to avoid damage to the gasket and facilitate making the joint.

All pipe shall be furnished with a depth mark to assure that the spigot end is inserted to the full depth of the joint.

All fittings shall be ductile iron conforming to the latest ANSI specifications A21.10 for fittings, twelve inches (12”) or less, and AWWA C110 for fittings fourteen inches (14”) or larger. Joints for all fittings shall be mechanical joints with Mega Lug wedge action retaining glands or approved equal. All nuts and bolts used for jointing shall be stainless steel, Grade 304 bolts, and Grade 316 nuts.

This work shall be paid for at the contract unit price per FOOT (LF) for WATER MAIN of the diameter and type specified, which shall be payment in full for all labor equipment and material to install and/or relocate the water mains as shown on the Plans or as directed by the Engineer in the field.

All fittings shown on the Plans shall be considered incidental to the cost of the water main.

In the event that fittings are required beyond what are shown in the Plans, payment shall be made at the contract unit price per POUND (LB) for ADDITIONAL FITTINGS.

SP W.2 – WATER SERVICE/WATER SERVICE RELOCATION

All copper fittings shall be flared fittings. Compression fittings shall not be allowed. All water services shall be constructed of 1" diameter Type K copper pipe unless otherwise called out on the Plans or directed by the Engineer in the field. Whenever possible, the Contractor shall install water services under pavement using trenchless construction methods (TCM). The Contractor shall submit a detailed plan describing the TCM to be used to the Engineer for approval. The costs associated with exposing existing utilities that may potentially be in conflict with the proposed copper water service to be installed utilizing trenchless methods shall not be paid for separately and shall be considered incidental to the trenchless copper water service installation. Water services and all appurtenances shall be installed meeting the requirements of Part 890 of the Illinois Plumbing Code (77 IL Admin Code 890.1150).

The contractor will be given the contact information the City has obtained from the lead water service sign-off form which the contractor will use to coordinate any work required within the private property. The contractor will be responsible for all contact with the homeowner from that point forward and it is recommended the contractor has a bilingual employee to help with that communication. A before and after picture at the water meter should be taken of each property and provided to the City on completion of the work in order to be paid these allowances. The contractor should display the address and date in each picture.

The Contractor shall televise and locate the sanitary service prior to lead water service replacement. If the homeowner or property owner claim to have a damaged sanitary service post water service replacement, the Contractor shall investigate and repair any damaged services resulting from the lead service replacement at their own expense and as directed by the Engineer.

Installation of water services shall be paid for at the contract unit price per FOOT (LF) for OPEN CUT COPPER WATER SERVICE or for TRENCHLESS COPPER WATER SERVICE for the size specified in the contract, which shall be payment in full for all excavation, backfill material, dewatering, sheeting, shoring and bracing, supplying and installing the copper pipe and fittings, connection to existing lead lines if required, exposing existing utilities, and flushing the existing system, all in accordance with the Plans, specifications and as directed by the Engineer.

The footage for TRENCHLESS COPPER WATER SERVICE payment shall be from the water main tap to the wall or floor where the new copper service enters the residence.

The contractor will be responsible for performing the work listed below and as directed by the Engineer while connecting the new copper water service to the interior water meter, in accordance with the details.

- A plumber licensed by the State of Illinois shall be responsible for any work under this contract that is required by the Illinois Plumbing Code which shall be included in the INTERIOR CONNECTION pay item.
- The interior connection pay item shall include up to 10’ of additional pipe past the point of entry, the connection to the existing meter and a new 1” brass ball valve before and if needed after the meter.
- Interior pipe in excess of 10’ shall be paid per foot of Interior 1” Copper pipe
- A new drain down shall be installed if needed and included in the cost of the interior connection
- The hole in the foundation wall or concrete floor shall be patched with hydraulic cement or concrete which shall be included in the interior connection. Any restoration beyond this patch will be the homeowner’s responsibility
- Existing jumper wire and ground clamps will be reinstalled or replaced if needed which shall be included in the interior connection
- If the meter requires replacement, the replacement will be scheduled and completed by the City at a later date
- City to provide meter socket or meter horn if needed but the installation cost shall be included in the interior connection pay item
- If the water heater requires removal and resetting it shall be paid for separately if approved by the Engineer the associated work shall be paid for on a time and materials basis if approved by the Engineer utilizing ITEMS ORDERED BY ENGINEER pay item.
- If the toilet requires removal and resetting to televise/locate the sanitary service, the associated work shall be paid for on a time and materials basis if approved by the Engineer utilizing ITEMS ORDERED BY ENGINEER pay item.
- Any project management time needed to coordinate access with the home or property owner shall be included in the INTERIOR CONNECTION pay item.

This work shall be paid for at the contract unit price per EACH (EA) for INTERIOR CONNECTION TO WATER METER W/SLAB or INTERIOR CONNECTION TO WATER METER W/BASEMENT OR CRAWL SPACE and shall include all materials and labor necessary to perform the work as previously specified.[LG1] [JH2]

The Contractor shall remove and replace the curb stop and box if directed by the Engineer. All curb stops shall be Minneapolis pattern with flared connections conforming to ANSI/AWWA C800 and shall be the following brands or approved equal: A.Y. McDonald 6104, Ford B22-444M, or Mueller H-15151. All curb boxes shall be 5’6” bury Minneapolis pattern with minimum 1-1/4” upper section equal to: A.Y. McDonald 5614 or Ford EM-55-56. (Accepted Brands: Mueller, Star Pipe Products, Sigma/Nappco, Bingham & Taylor or approved equal) Removal and replacement of the curb stop and box shall be paid for at the contract unit price per EACH (EA) for CURB STOP AND BOX for the size specified in the contract which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

The Contractor shall excavate and tap the new water main and install a new corporation stop at locations shown on the Plans or as directed by the Engineer. Corporation stops shall have flared connections conforming to ANSI/AWWA C-800 and shall be the following brands or approved equal: A.Y. McDonald 4701 or Ford F-600. All excavation, shoring, spoil removal and disposal, trench backfill and materials and labor necessary for connecting the water service to the new water main shall be paid for at the contract unit price per EACH (EA) for CORPORATION STOP for the size specified in the contract which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications and as directed by the Engineer.

At the Engineer's discretion, if the existing water service crossing the newly constructed water main is copper, the Contractor shall transfer the service to the new water main by cutting and tapping it at the new main. This work shall be paid for as CORPORATION STOP, for the size specified, pay item.

At the Engineer's discretion, if the existing water service has been recently replaced and has a new curb stop and buffalo box, the Contractor shall connect the new water service to the existing curb stop and buffalo box. This work shall be paid for as CONNECT TO EXISTING CURB STOP AND BBOX, of the size specified, pay item. If a service has been partially replaced in either the Right-of-Way or private property, then the Contractor will be required to replace the remainder of the lead service line with the appropriate bid items.

In locations where the new service is to be connected to PVC water mains, the Contractor shall use an epoxy coated ductile iron service saddle with stainless steel bands. Saddles shall be Ford FC202 for C900/C905 PVC or approved equal. All labor and material necessary for installing saddles shall be paid for at the contract unit price per EACH (EA) for SERVICE SADDLE which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

Restoration Minimization Control: To minimize grass restoration and long-term efforts to establish new turf grass, the following preventative restoration measures shall be made:

- **Any parkway excavations where spoils are not directly loaded into trucks and will be utilized for non-trench backfill material may be stockpiled in the parkway when using preventative restoration measures. Preventative restoration measures may include placing filter fabric, plastic sheeting, plywood, etc. on the existing turfgrass where the spoils are temporarily stockpiled.**
- **Drill rig equipment or other trenchless installation equipment driven over turf areas shall utilize preventative restoration measures which may include placing hard plastic mats, plywood, etc. over the turfgrass prior to moving equipment.**
- **Drill rig anchoring holes shall be backfilled and restored at the contractor's expense following the SEEDING-AURORA MIX special provision.**
- **Any restoration required as deemed by the Engineer outside of typical excavation limits where preventative restoration measures are required as outlined above will NOT be eligible for payment. The contractor shall restore any stockpile and equipment tracking areas as deemed by the Engineer at the contractor's expense. Grass restoration in these areas shall be done according to this SEEDING-AURORA MIX special provision.**

SP W.3 – WATER MAIN AND WATER SERVICE CROSSINGS

Crossing of water mains and services with storm and sanitary sewers shall comply with Sections 31-1.02 and 41-2.01 of the Standard Specifications for Water and Sewer Main Construction in Illinois. In the event of a break in the water main, the Contractor shall replace said main with new Ductile Iron Pipe Class 52 (cement lined) across the full width of the trench and an additional distance on each side of the trench so that the connection to the existing main is on solid ground. However, in no case shall this additional distance on each side of the trench for said connections be less than eighteen inches (18"). All connections shall be made using a ductile iron transition sleeve with transition gaskets for varying outside [WS5] diameters of pipe complying with mechanical joint ductile iron fittings ANSI-A21.10 and AWWA C-110 Specifications, and said fittings shall not be less than twelve inches (12") in length. All ductile-iron pipes and appurtenances shall be protected against corrosion with V-bio polyethylene wrapping in accordance with AWWA C-105-82 and the Protection Against Corrosion special provision.

SP W.4 – WATER MAIN LOWERING

This item consists of lowering existing or proposed water mains in order to avoid vertical conflicts with existing or proposed utilities. This work may be shown on the plans or may be required due to unforeseen conflicts between the existing or proposed water main and other existing or proposed utilities. For areas where the existing main must be lowered, or the proposed main must be installed at a depth of 1.5' greater than the proposed depth, the installed pipe length and fitting length of lowered main[WS6] [HJ7] [HJ8] shall be paid for at the contract unit price per FOOT (LF) for WATER MAIN LOWERING of the size specified in the contract, which shall be payment in full for all equipment, labor, and backfill material. Fittings required to lower the mains shall not be paid for separately but shall be considered incidental to WATER MAIN LOWERING.

SP W.5 – GATE VALVE AND VALVE BOX FOR WATER MAINS

This section applies to the construction of standard cast iron valve boxes, all in accordance with the City of Aurora Standard Specifications for Improvements.

Cast Iron Valve Boxes: Valve boxes must be free of debris, vertical, and centered over the operating nut so that the nut is easily keyable. Valve boxes and extensions must be cast iron only (no plastic). Valve boxes shall be 6850 Series as manufactured by Tyler Union, or approved equal. Adjustable cast iron valve boxes shall be screw type and shall set to position during backfilling operations so they will be in a vertical alignment to the valve operating stem. The screw type valve box shall be adjustable by screwing the upper section over the lower section. The lower casting of the unit shall be installed first in such a manner as to be

snuggly settled upon the body of the valve. The upper casting of the unit shall then be placed into proper alignment at such an elevation that its top will be at final grade. If necessary, extension sections shall be furnished to increase the length of the screw type valve box to ensure the top of the box will be at final grade. CA-6 crushed stone shall be utilized to backfill around the valve and valve box.

Ring and Cover and Valve Box Castings: Castings with cast iron ring and cover, and cast iron parts of valve boxes, shall conform to the requirements of Standard Specifications for Gray Iron Castings, ASTM Designation A-48.

Gate Valve: Gate valves shall be Waterous series 2500 resilient wedge or Engineer approved equal with cast iron body, fully bronze mounted, non-rising stem with upper and lower thrust collars. Waterways shall be smooth. All valves shall open by turning counterclockwise. Valves shall meet or exceed AWWA C-500. Valves shall be Waterous. All nuts, bolts, and threaded rods shall be stainless steel, Grade 304 Bolts and Grade 316 Nuts.

ALPHA restraint joint gate valves manufactured by Romac Industries, Inc. with a working pressure of 350 psi shall be accepted as an Engineer approved equal.

End Connections

End connections of all valves shall be mechanical joint.

Valve Stem Seals: All gate valves shall be furnished with O-Ring Stem Seals. Number, size and design shall conform to the AWWA Standard for R/W valve O-Ring Stem Seals.

The minimum requirements for all valves shall, in design, material and workmanship, conform to the standards of the latest AWWA C509-87, and C504. All materials used in the manufacture of waterworks valves shall conform to the AWWA standards designed for each material listed.

Manufacture and Marking: The valves shall be standard pattern and shall have the name or mark of the manufacturer, size and working pressure plainly cast in raised letters on the valve body.

Valve with valve box will be paid for at the contract unit price per EACH (EA) for GATE VALVE WITH VALVE BOX of the specified diameter which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

SP W.6 – VALVE IN VALVE VAULT

This work shall consist of all excavation, furnishing and installing the valve; valve vault; frame and closed lid and appurtenances; testing; disinfecting; protection; removal of existing valve, valve box or vault, and installation of corporation stops, installation and removal of copper whips for flushing and testing, removal of surplus material; and clean-up, all in accordance with the Plans and specifications.

Corporation stops shall be installed on both sides of all valves within the valve vaults. The corporation stops shall be 1” diameter, unless otherwise called out in the Plans or needed to provide minimum flushing velocities.

Gate Valve

Gate valves shall be resilient wedge with cast iron body, fully bronze mounted, non-rising stem with upper and lower thrust collars. Waterways shall be smooth. All valves shall open by turning counterclockwise. Valves shall meet or exceed AWWA C-500. Valves shall be Waterous. All nuts, bolts, and threaded rods shall be stainless steel, Grade 304 bolts and Grade 316 nuts. All gate valves shall be furnished with O-Ring Stem Seals. Number, size and design shall conform to the AWWA Standard for R/W valve O-Ring Stem Seals.

End Connections

End connections of all valves shall be mechanical joint.

The minimum requirements for all valves shall, in design, material and workmanship, conform to the standards of the latest AWWA C509-87, and C504. All materials used in the manufacture of waterworks valves shall conform to the AWWA standards designed for each material listed. The Contractor shall provide corporation stops on either side of all valves. The corporation stop shall be a minimum of 1” diameter. Larger diameter corporation stops may be required if needed to provide adequate flushing velocities.

Valve Vaults

Valve Vaults shall be 4’ in diameter for 10” and smaller valves and 5’ in diameter for 12”- 16” valves. Valve vaults shall be constructed in accordance with the Plans and details and shall include all excavation, testing, frame and cover, granular trench backfill, and all other appurtenances. **Each valve vault shall be furnished with a cast iron frame and cover as specified in the Plans. Frames shall be East Jordan 1050Z1 or approved equal within paved areas. In non-paved areas, the frame shall be East Jordan 1022Z1 or approved equal. The lids shall be East Jordan 1020A watertight covers with two (2) concealed “EPIC” pickholes. The cover shall have the words "City of Aurora” cast into the top, in two (2) inch high lettering. The structures shall be constructed with a minimum of 2” adjusting rings and allow for a maximum of 10” of adjusting rings. The use of concrete adjusting rings shall not be allowed and composite PRO-RING adjusting rings manufactured by Cretex Specialty Products or an approved equal shall be installed. The grade adjustment rings shall be manufactured from ARPRO Expanded Polypropylene, (EPP), black. 5000 series meeting ASTM D3575 and ASTM D48-1913; B6D7G4L3M24S2T17W7. The rings shall be manufactured using a high compression molding process to produce a finished density of 120 g/l ((7.5pcf). “Grade” adjustment rings may contain either an upper or lower keyway (tongue and groove) for vertical alignment and/or an adhesive trench on the**

underside with a flat top. The grade adjustment rings shall be capable of supporting the minimum requirements of AASHTO M-306, H-25 and HS-25, be UV stable and be resistant to chemicals and corrosion commonly associated with the sanitary and storm sewer environments. The rings shall be set with M-1 Adhesive/Sealant as recommended by the manufacturer between each ring, frame and/or top of structure. [NS9] Any adjustment to the proposed structure required to match existing or proposed grade, shall be incidental to this item[NS10] [JH11] . **Pipe connections to all manhole openings (casted or core-drilled) shall be constructed with a flexible rubber watertight connector conforming to ASTM C-923.**

Manufacture and Marking

The valves shall be standard pattern and shall have the name or mark of the manufacturer, size and working pressure plainly cast in raised letters on the valve body.

Valve with valve vault will be paid for at the contract unit price per EACH (EA) for MJ VALVE IN VAULT of the size, type and diameter of valve and vault specified which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

SP W.7 – CONNECTIONS TO EXISTING WATER MAINS

This work shall consist of all excavation, furnishing and installing the tapping valve, saddle; valve vault; frame and closed lid and appurtenances; furnishing and installing the valve tie downs and thrust blocking; fittings; reducers; sleeves; testing; disinfecting; protection; removal of surplus material; and clean-up, all in accordance with the Plans and specifications.

Tapping Sleeve

Tapping sleeves shall be ductile iron construction meeting ASTM A536 Grade 65-45-12.

Tapping Valve

Tapping valves shall be resilient wedge with cast iron body, fully bronze mounted, non-rising stem with upper and lower thrust collars. Waterways shall be smooth. All valves shall open by turning counterclockwise. Valves shall meet or exceed AWWA C-500. Valves shall be Waterous. All nuts, bolts, and threaded rods shall be stainless steel, Grade 304 bolts and Grade 316 nuts.

End connections of all valves shall be mechanical joint with Mega Lug retainers.

Valve Stem Seals

All gate valves shall be furnished with O-Ring Stem Seals. Number, size and design shall conform to the AWWA Standard for R/W valve O-Ring Stem Seals.

The minimum requirements for all valves shall, in design, material and workmanship, conform to the standards of the latest AWWA C509-87, and C504. All materials used in the manufacture of waterworks valves shall conform to the AWWA standards designed for each material listed.

Valve Vaults

Valve Vaults shall be 5’ in diameter for 12” diameter and smaller pressure connections. Valve Vaults shall be 6’ in diameter for pressure connections greater than 12” diameter.

Manufacture and Marking

The valves shall be standard pattern and shall have the name or mark of the manufacturer, size and working pressure plainly cast in raised letters on the valve body.

Non pressure connections to existing mains shall consist of the installation of necessary fittings, reducers, and sleeves; the location of the existing main to determine size and alignment prior to the installation; notification to affected residents in accordance with the special provisions; properly plugging the portion of existing main to be abandoned.

The tapping valve with valve vault will be paid for at the contract unit price per EACH (EA) for PRESSURE CONNECTION in VAULT for the size specified in the contract; non-pressure connections to existing mains shall be paid for at the contract unit price per EACH (EA) for CONNECT TO EXISTING WM, of the size specified in the contract which shall be payment in full for all labor, equipment, and material necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer in the field.

SP W.8 – FIRE HYDRANT ASSEMBLY

This item shall consist of the installation of new fire hydrant assemblies, including: all excavation; furnishing and installing the fire hydrant, tees, fittings, up to 15 feet of six inch (6”) DIWM pipe, auxiliary gate valve, cast iron valve box with lid, thrust blocks, drainage system and appurtenances; testing; disinfecting; protection; removal of surplus excavated material; and clean-up. The fire hydrant shall be red in color.

Description

These specifications are to be used in conjunction with the AWWA Standard C502 for fire hydrants for ordinary water works service, and the City of Aurora’s Standard Specifications for Improvements.

Materials

All materials used in the production of fire hydrants for ordinary service shall conform to the specifications designated for each material listed in AWWA Standard C502.

The hydrant shall be Waterous Pacer WB-67 (5 1/4" barrel) of a pattern approved by the Engineer. The seat must be bronze. The name or mark of the manufacturer, size of the valve opening shall be plainly cast in raised letters and so placed on the hydrant barrel as to be visible after the hydrant has been installed.

All nuts, bolts, and threaded rods shall be stainless steel, Grade 304 bolts and Grade 316 nuts.

ALPHA restraint joint hydrants manufactured by Romac Industries, Inc. with a working pressure of 350 psi shall be accepted as an Engineer approved equal.

Any vertical adjustments or hydrant extensions will not be paid for separately but shall be considered incidental to Fire Hydrant Assembly.

This work shall be paid for at the contract unit price per EACH (EA) for FIRE HYDRANT ASSEMBLY, which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

SP W.9 – FIRE HYDRANT REMOVAL

This work shall consist of removing and if necessary disposing of existing fire hydrants, auxiliary valves, valve boxes, including all required excavation, plugging the existing hydrant lead with brick and mortar, and backfill material. The Contractor shall keep existing hydrants in service until the proposed water main improvements have passed all required testing and have been placed into service.

Existing hydrants and valves being removed shall be delivered to 2185 Liberty St., Aurora and unloaded at the location designated by City personnel.

This work shall be paid for at the contract unit price per EACH (EA) for FIRE HYDRANT ASSEMBLY REMOVAL which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

SP W.10 – PRESSURE TESTING WATER MAINS

The newly laid water mains or any valved sections of it shall be subject to a hydrostatic pressure test of no less than one-hundred and fifty (150) psi. All testing activities shall be recorded and witnessed by the City of Aurora's Engineering Division or its designated representative. Any testing not witnessed will not be accepted. The Contractor shall furnish the pump pipe connection and all necessary apparatus, including gauges and meters.

After the water main has been laid and partly backfilled, the water main shall be slowly filled with water to eliminate air pockets prior to testing. If necessary, taps with corporate stops shall be placed at points of highest elevation allowing trapped air to be expelled before being plugged. The main shall be filled with water at a rate to ensure that the water within the main will flow at a velocity no greater than 1 foot/second.

Before applying the test pressure, air shall be completely expelled from the pipe. **The Contractor shall pre-pressure test the main prior to the City witnessing the test. If the Contractor schedules a pressure test prior to pre-testing and the test fails, the Contractor will be deducted $500 for each failed test.** The test pressure shall be at least 150 psi and the test shall last for a minimum of 2 hours. A loss of more than 5 psi during the test shall result in a test failure and the test must be restarted. Upon completion of the test, the volume of recovery water shall be defined as the amount necessary to restore the pressure within the test section to the value at the commencement of the test. The allowable leakage shall be as determined by AWWA Standard C600-100 Sec. 5.2, based on an allowable leakage of 10.49 gpd/mi/inch. While lengths greater than 1,000 feet may be tested at one time, the permissible leakage will be calculated for the length of water main tested up to a maximum of 1,000 feet regardless if the actual length of main tested is longer.

All joints showing visible leaks shall be repaired until tight. Any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of this pressure test shall be removed and replaced by the Contractor with sound material and the entire pressure test shall be repeated until satisfactory to the Engineer. The Contractor will not be allowed to utilize "Bell Joint Clamps" to repair leaks at push-on joints.

This work shall not be paid for separately, but shall be considered incidental to the costs for installation of the water main.

SP W.11 – PROTECTION AGAINST CORROSION:

This covers material specifications and installation procedures for **V-bio polyethylene wrapping**[WS12] of the underground installations of ductile iron pipe, and other related appurtenances or water main. **The Contractor shall use a V-bio enhanced polyethylene wrap or an Engineer approved equal.** To ensure protection against corrosive soils, all ductile iron pipe installed as part of the public system shall include V-bio polyethylene encasement. The encasement shall be installed in accordance with the following specifications.

Table 1 – Raw Material Used to Manufacture Polyethylene Film

All Characteristics	In accordance with ASTM Standard Specification D-1238-68
Type	I

Class	A (Natural Color) or C (Black)
Grade	E-I
Flow Rate (Melt Index)	0.4 Maximum
Thickness	0.008 inch (8 mils) Minimum
Volume Resistivity	Minimum Ohm-cm^3 = 10^15
Tensile Strength	1200 psi Minimum
Elongation	300% Minimum
Dielectric Strength	800 Volts per mil Minimum

Thickness Tolerance

Polyethylene film shall have a minimum thickness of 0.008 inch (8 mils). The minimum thickness tolerance is ten percent (10%) of the nominal thickness.

Table II – Minimum Polyethylene Width

Nominal Diameter of Pipe (Inch)	Flat Tube	Sheet
6	21	48
8	24	48
10	27	54
12	30	60
16	37	74
24	54	108
30	67	134
36	81	162

General Installation

The V-bio polyethylene encasement shall prevent contact between the pipe and the surrounding backfill and bedding material but is not intended to be a completely air and water tight enclosure. Overlaps shall be secured by the use of adhesive tape, plastic string, or other material capable of holding the V-bio polyethylene encasement in place until backfilling operations are completed.

Pipe Wrapping

The standard includes three different methods for the installation of V-bio polyethylene encasement on pipe. For polyethylene supplied in tubes, use Methods A and B. Method C is for use with polyethylene sheets.

METHOD A

Cut polyethylene tube to a length approximately two feet (2') longer than that of the pipe section. Slip the tube around the pipe, centering it to provide a one foot (1') overlap on each adjacent pipe section, and bunching it accordion fashion length-wise until it clears the pipe ends.

Lower the pipe into the trench and make up the pipe joint with the preceding section of pipe. A shallow bell hole must be made at joints to facilitate installation to the polyethylene tube.

After assembling the pipe joint, make the overlap of the polyethylene tube. Pull the bunched polyethylene from the preceding length of pipe, slip it over the end of the new length of pipe and secure in place. Then slip the end of the polyethylene from the new pipe section over the end of the first wrap until it overlaps the joint at the end of the preceding length of pipe.

Secure the overlap in place. Take up the slack width to make a snug, but not tight fit along the barrel of the pipe, securing the fold at quarter point.

Repair any rips, punctures, or other damage to the polyethylene with adhesive tape or with a short length of polyethylene tube cut open, wrapped around the pipe and secured in place. Proceed with installation of the next section of pipe in the same manner.

METHOD B

Cut polyethylene tube to length approximately one foot (1') shorter than that of the pipe section. Slip the tube around the pipe, centering it to provide six inches (6") of bare pipe at each end. Make polyethylene snug, but not tight; secure ends as described elsewhere.

Before making up a joint, slip a three foot (3') length of polyethylene tube over the end of the preceding pipe section, bunching it accordion fashion lengthwise. After completing the joint, pull the three foot (3') length of polyethylene tube over the joint, overlapping the polyethylene previously installed on each adjacent section of pipe by at least one foot (1'); make snug and secure each end as described elsewhere.

Repair any rips, punctures, or other damage to the polyethylene. Proceed with installation of the next section of pipe in the same manner.

METHOD C

Cut polyethylene sheet to a length approximately two feet (2') longer than that of the pipe section. Center the cut length to provide a one foot (1') overlap on each adjacent pipe section, bunching it until it clears the pipe ends. Wrap the polyethylene around the pipe. Secure the cut edge of polyethylene sheet at intervals of approximately three feet (3').

Lower the wrapped pipe into the trench and make up the pipe joint with the preceding section of pipe. A shallow bell hole must be made at joints to facilitate installation of the polyethylene. After completing the joint, make the overlap as described above.

Repair any rips, punctures or other damage to the polyethylene. Proceed with installation of the next section in the same manner.

Pipe Shaped Appurtenances Wrapping

Cover bends, reducers, offsets, and other pipe-shaped appurtenances with polyethylene in the same manner as the pipe.

Odd Shaped Appurtenances Wrapping

When valves, tees, crosses, and other odd-shaped pieces cannot be wrapped practically in a tube, wrap with a flat sheet or split length of polyethylene tube by passing the sheet under the appurtenance and bringing it up around the body. Make seams by bringing the edges together, folding over twice, and taping down. Handle width and overlaps at joints as described above. Tape polyethylene securely in place at valve stem and other penetrations.

This work shall not be paid for separately, but shall be considered incidental to the contract unit price per FOOT (LF) for WATER MAIN and WATER MAIN LOWERING of the size and type specified.

SP W.12 – FLUSHING OF WATER MAINS

After satisfactory completion of pressure/leakage testing, the water main shall receive a preliminary flush. Flushing of water mains shall be conducted under the supervision of the City of Aurora's Engineering Division, or its designee, in accordance with the approved flushing plan. The flushing shall include 100% of the newly installed water main as well as **every fire hydrant installed**. During the flushing operation the direction of flow through the mains shall be reversed. All main line and hydrant valves shall be opened and closed while flushing in each direction.

The flushing velocity in the main shall be a **minimum of 3.0 feet/second**. See Table A for recommended flows to properly flush piping.

Table A Required Flow and Openings to Flush Pipelines*

Pipe Diameter	Flow Required to Produce 3.0 ft/s Velocity in Main	**Size of Tap**			**Number of 2-1/2 inch Hydrant Outlets**
		1-inch	**1-1/2 inch**	**2-inch**	
(Inch)	**(gpm)**	Number of Taps on Pipe**			
4	120	1	-	-	1
6	260	-	1	-	1
8	470	-	2	-	1
10	730	-	3	2	1
12	1,060	-	-	3	2
16	1,880	-	-	5	2

* Assuming 40 psi residual pressure in existing water main

** Number of taps on pipe based on discharge through 5 ft. of galvanized iron (GI) pipe with one 90 degree elbow.

NOTE: Flushing is no substitute for preventive measures during construction. Certain contaminants, such as caked deposits, resist flushing at any feasible velocity.

This work shall not be paid for separately, but shall be considered incidental to the costs for installation of the water main.

SP W.13 – REQUIREMENTS OF CHLORINE

Water Main Disinfection

Disinfection shall be accomplished by the use of liquid sodium hypochlorite (NaOCl) or chlorine gas only. The City of Aurora's Engineering Division or its designated representative shall witness the chlorination of the water main. Chlorination of the water main shall not be permitted until the main has passed the pressure/leakage test and a preliminary flush has been performed, witnessed, and approved.

Under the supervision of the project field representative, water from the existing distribution system shall be made to flow at a constant rate into the newly laid water main. At a point not more than 10 feet downstream from the beginning of the new main, water entering the new main shall receive a dose of chlorine fed at a constant rate such that the water will receive not less than 50 mg/L of free chlorine (see Table B or C below).

If chlorine gas is utilized, a minimum of two people employed by the Chlorinator are required when chlorinating a main. One person to monitor the chlorine gas system at the cylinder and one person to monitor the free chlorine levels at the whip/sample locations. The chlorine gas cylinder is not to be left unattended at any time during the disinfection procedure.

All main line and hydrant valves (except for valves at the connection between the new and existing systems) shall be operated after the main has been chlorinated in order to allow the valve disk to make contact with the chlorine solution. As an optional procedure (if specified by the City of Aurora or its designee), water used to disinfect the new main during the application of chlorine will be supplied through a temporary connection. This temporary connection shall be installed with an appropriate cross-connection control device to prevent backflow into the distribution system.

Table B

Chlorine Gas Required to Produce 50 mg/L

Concentration in 100 ft. of Pipe

Pipe Diameter	100% Chlorine Gas*
(Inch)	**(Pounds / 100 LF)**
4	.026
6	.060
8	.108
10	.170
12	.240
16	.434

* Approximate dosages required

Table C

1% Sodium Hypochlorite (NaOCl) Solution Required to

Produce 50 mg/L Concentration in 100 ft. of Pipe

Pipe Diameter	1% Sodium Hypochlorite Solution*
(Inch)	**(Gallons / 100 LF)**
4	.32
6	.72
8	1.30
10	2.04
12	2.88
16	2.60

* Approximate dosages required

A minimum free chlorine residual of 25 mg/l shall remain in the water main after standing 24 hours in the pipe as tested/confirmed by the City's Engineering Division or designated representative. A free chlorine concentration less than 25 mg/L indicates an unusually large chlorine demand and can be an indication of significant contamination within the pipe. This condition shall require the Contractor to perform a second preliminary flush and also to chlorinate the main a second time prior to collection of any samples.

Final Flushing and Bacteriological Testing

A minimum of 24 hours after the water main has been properly chlorinated, the Contractor shall schedule an appointment for bacteriological testing. The Contractor shall contact the City of Aurora's Microbiology Laboratory at 630-256-3255 to schedule sample collection. Typically, sample collection will occur on the next business day. Samples will NOT be collected on Fridays, Saturdays, or Sundays, unless advance coordination has been completed and the Contractor is willing to pay for the sampling.

All of the water main that is covered by one IEPA permit must be tested and sampled as a complete project. Bacteriological sampling will not begin until the entire length of the water main being permitted by the IEPA for that particular project has been installed, pressure tested, and chlorinated. Modifications of this requirement must be discussed with the city's representative 7 days prior to disinfection procedures.

Just prior to sampling, the main shall be flushed under the supervision of approved City of Aurora personnel or a designated representative to reduce the free chlorine concentration to no more than 3.5 mg/L. City of Aurora Water Production Division personnel shall collect all bacteriological samples. Sample points shall consist of only copper whips attached to the main and shall be located every 1,200 feet, plus one location from the end of the line, and at least one location from each branch greater than one pipe length long (generally 20 feet). Representative samples shall be collected at locations as directed by the City of Aurora's Water Production Division. **Samples shall not be drawn from hydrants.**

All water mains must be shown to be free of bacterial contamination before being placed into service. All samples shall be analyzed for bacteriological contamination at the City of Aurora's Illinois Department of Public Health certified laboratory. If an initial sample set indicates no bacterial contamination in the water main then the disinfection will be considered satisfactory. If any of the samples that are part of the initial sample set do not pass satisfactorily, then two consecutive water samples collected at least 24 hours apart from each of the unsatisfactory locations must pass to indicate no bacteriological contamination and to allow the main to be placed into service.

The City of Aurora will collect a total of three samples from each designated sample location free of charge. If any of the third samples collected from any location indicate bacteriological contamination then the Contractor must again perform preliminary flushing and chlorination (as described above) on the water main before additional samples will be collected by the City of Aurora. If the portions of the water main which have not passed the bacteriological sampling can be properly isolated from the portions that have passed, and the City of Aurora Engineering Division or its designated representative approves, then only the unsatisfactory portions of the main will be required to be re-flushed, re-chlorinated, and re-sampled.

Once samples are collected, City of Aurora employees or its designated representative shall stop the flow of water through the copper sample whip and the main. Thus, all valves associated with all hydrants, copper whips, and new main isolation valves shall be closed and may not be left "running" between collections of samples on consecutive days.

After samples are collected, City of Aurora personnel or its designated representative shall close the main isolation valve that provides water from the existing water main into the newly installed water main being tested. This valve shall remain closed until the water main project receives approval to become active or if additional sampling or flushing is required. Approved City of Aurora personnel, or its designated representative, shall be the only individuals allowed to operate this valve.

Any questions concerning installation, testing, or disinfection procedures should be directed to the City's designated representative or the Water Production Division at 630-256-3250.

This work shall not be paid for separately, but shall be considered incidental to the costs for installation of the water main.

SP W.14 – INSERTION VALVE

The Contractor shall furnish and install a permanent stainless steel body resilient wedge gate valve, designed for permanent use in the City's water system and at the location shown on the Plans or as directed by the Engineer. Before ordering the insertion valve, the Contractor shall dig exploratory pits to determine the exact outside diameter of the existing water main.

The method of installation and the equipment for installing the insertion valve shall be in strict accordance with the recommendations of the manufacturer. The insertion valve shall be installed into an existing pressurized pipeline while maintaining constant pressure and service without system shutdown. Insertion valves shall be Insta-Valve 250 as manufactured by Hydra-Stop, or approved equal. All insertion valves shall be rated for 250 psig maximum working pressure. The pressure rating must be permanently marked into the body. No restraining devices, restraining fasteners, or transition gaskets shall be required for the installation or operation of the valve. Any excavation required to install the insertion valve at a safe distance (to be determined by the Contractor and/or the manufacturer) from the point of insertion shall be considered incidental to this pay item. The necessary backfill and restoration at the site of the insertion valve shall be paid for using the appropriate pay item.

Insertion valves must be installed by workers trained and authorized by the approved valve manufacturer.

This work will be paid for at the contract unit price of EACH (EA) for INSERTION VALVE of the size specified, which price shall include all of the labor, materials and equipment to install the insertion valve as described herein.

SP W.15 - DIRECTIONAL DRILLING WATER MAIN INSTALLATION

This work shall consist of the installation of water main via directional drilling methods. All pipe shall be High Density Polyethylene Plastic Pipe – HDPE (Directional Drilling Installation) or Ductile Iron Pipe – DIP (Directional Drilling Installation).

Polyethylene Plastic Pipe shall meet the applicable requirements of ASTM F-714 “Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter” and ASTM D-1248 “Polyethylene Plastic Molding and Extrusion Materials” and shall meet the following minimum requirements:

1. All pipe shall be made of virgin material. Use of rework will not be permitted. The pipe shall be homogenous throughout and shall be free of visible cracks, holes, foreign material, blisters, or other deleterious faults.
2. HDPE shall comply with ANSI/AWWA C906 and ANSI/AWWA C901 specifications.
3. Pipe material shall conform to ASTM D-1248 Type IV, Class C, or in accordance with directional drilling system manufacturer’s recommendation as approved by the Engineer.
4. Dimension ratios – the minimum wall thickness of the polyethylene pipe shall be DR-11.
5. All pipe sections shall be connected using molded butt fusion welded in accordance with ASTM D3261.
6. Pipe shall be black with a blue stripe shall conform to PE 4710 DIPS HDPE Pipe specifications and sizes.
7. Provide coupling to connect HDPE to Ductile Iron at each end of directional bore and at fittings. Provide JCM 230 pipe stiffeners or approved equal at all HDPE to mechanical joint connections. Pipe stiffeners are to be made of 316 stainless steel, match the inside diameter of the HDPE, and be designed for use with mechanical joint restraining devices. Couplings and pipe stiffeners shall be incidental to the cost of the HDPE pipe, hydrant or valve installation.
8. All fittings shall be ductile iron fittings and shall be considered incidental to the line items in the bid.
9. All HDPE pipe shall be installed along with two detectable tracer wires attached to the top of the main. Wire shall be a #10 gauge copper wire with 45 mil PE coating (Kris-Tech or approved equal). Terminal ends shall be brought to the surface at all structures, fire hydrants and any other locations determined by the Engineer. All splice locations shall be made with suitable electrical connection devices or electrical wire connectors as approved by the Engineer. The Contractor shall demonstrate to the Engineer a check of the completed tracer wire “continuity” to verify the wires were installed properly. If the Contractor fails to install the tracer wires properly, the Contractor will be required to fix or replace the wires until they are working properly.

Ductile Iron Pipe shall meet all requirements as specified under “Water Main Installation” and shall be boltless restrained joint or lock ring type and shall be manufactured in the United States and **shall be double wrapped with V-bio polyethylene encasement**. All ductile iron fittings shall be manufactured in the United States.

The Contractor shall provide plan of proposed directional installation, including, but not limited to location and dimensions of push-pits and receiving pits and proposed vertical and horizontal alignment. **The Contractor must consider the presence of existing utilities, soil conditions, ground water, space constraints, existing manmade improvements both below and above ground, such as vaults, building foundations, transformers, utility poles, traffic control devices, underground utilities, and other unique characteristics of the proposed work and work site.** Installation of pipelines shall be in accordance with the applicable reference standards and as specified herein.

The Contractor shall be responsible for excavating and exposing all private utility, sanitary, and water service crossings to inspect the crossing and state of the service after it has been crossed. The cost of this action will be incidental to the cost of the trenchless pipe installation.

The Contractor shall take necessary precautions to insure materials are not damaged in unloading, handling, and placing on site storage area will be designated by Engineer. Damaged material shall be removed from the site and replaced with undamaged material. Pipe ends shall be closed at the completion of any work period to prevent entry of animals and foreign material. All new materials shall be selected, handled and installed in accordance with these specifications.

The Contractor shall notify the engineer not less than 48 hours in advance of the time when he Plans to begin construction work at a particular location within the project area. The contractor is responsible for obtaining the location of other utilities near the area to be excavated.

Contractor shall install all pipe at designated depth and grade in accordance with the reference standards, industry practices, and in strict accordance with the equipment and material manufacturer. The Contractor will furnish all labor, equipment materials, and supplies and will perform all work necessary to provide City with a complete, finished product. All spoil and slurry from the directional drilling activities shall be promptly removed from the site and disposed of in a legal manner. Contractor will supply portable mud tanks or construct temporary mud pits to contain excess drill fluids during construction. It is the intent to install majority of water main through long segments of directional drilling. Contractor will be allowed to utilize small amounts of open cut installation as shown on Plans and as directed by the Engineer. The proposed alignment, length, profile and grade to which the pipe shall be installed are noted on the applicable drawings. This profile indicates the grade to which the pipe will be installed. Contractor shall haul, string, weld, coat field joints and hydrostatically test the product line in one section. The Contractor shall provide adequate security and shall be responsible for the integrity of the work until after the pullback and final testing. Contractor shall provide adequate support rollers for the product line during pullback of the product string into the pre-drilled hole. The rollers and cradles shall be of a type that will preve :: damage to the product line and/or coating and will be of sufficient number to prevent over stressing due to sag bends during the pullback procedure.

Prior to beginning construction, Contractor shall be required to submit a detailed drilling procedure for installation of the crossing, a drill site layout drawing and a bar chart detailing the proposed work schedule. In the event that the Contractor must abandon the drill hole before completion of the crossing, the Contractor will seal the borehole and re-drill the crossing at no extra cost to City. In the event that a boulder or other obstacle is encounter, the contractor shall attempt horizontal alignment adjustment to avoid the obstacle. If necessary, the contractor shall remove the obstacle utilizing the most appropriate and economic technology available, including vertical auguring through the boulder.

The Contractor shall limit the longitudinal pull on the product line so as not to exceed 72% of the specified minimum yield strength (SMYS) of the product. Contractor will continuously monitor the longitudinal pulling forces during product line pullback.

The Contractor shall perform acceptance tests on all new lines. Unless otherwise noted, no separate compensation will be paid for testing; the testing costs are to be included in the related pay items. If the work should fail to pass the tests, it is the Contractor's responsibility to correct the work and re-test with no additional compensation. If, within the warranty period, any section of the water system is not acceptable due to subsequent leakage or any other defects, although originally accepted, the Contractor shall repair or replace the affected portion at no cost to the City.

This work shall be paid for at the contract unit price per FOOT (LF) for WATER MAIN HDPE (TRENCHLESS) or WATER MAIN DIP (TRENCHLESS) of the size and type specified in the Plans and specifications and shall include the cost of:

A. Site preparation except removal and replacement of pavement and curb and gutter.
B. Excavating and backfilling of drilling and receiving pits to proper grade (if necessary) and disposing off-site of all surplus excavated materials.
C. Protecting existing utilities, site objects, and new work, which are to remain in service after completion of new sewers and appurtenances including the costs associated with exploratory excavations.
D. Sheeting, shoring, and bracing materials and their installation and removal.
E. Dewatering and/or By-Pass Flow Control as necessary to complete the work. Contractor shall maintain flow in all existing mains/services throughout the entire process.
F. Drilling materials, equipment, and labor. Pipe materials and pipe installation. Pipe, fittings, butt joints, equipment, labor and material.
G. Providing and installing fittings, flexible connectors for connecting to proposed ductile iron pipe transitions, existing pipe or structures.
H. Cleanup and all other appurtenant and incidental work.

SP W.16 – DISCONNECT AND ABANDON EXISTING WATER MAIN CONNECTION

The Contractor shall disconnect and abandon the existing water main at the locations shown on the Plans or as directed by the Engineer in the field.

The Contractor shall expose the water main to be disconnected and confirm the size and type of pipe material. If the water main to be abandoned is connected to water main via a tee, the tee shall be removed along with a minimum of two (2') feet of pipe on either side and replaced with Class 52 Ductile Iron Water Main along with Ductile Iron Long Sleeve. If the water main to be removed is connected to the water main via a cross, the pipe shall be removed from the cross and replaced with a Ductile Iron Plug.

All fittings shown on the Plans shall be considered incidental to the cost of the disconnect and abandon existing water main. In the event that fittings is required beyond what are shown in the Plans, payment shall be made at the contract unit price per POUND (LB) for ADDITIONAL FITTINGS.

The disconnecting and abandoning of water main in order to facilitate the installation of new water main, shall not be paid for separately, but shall be considered incidental to the Contract.

The removal of water main and connections not within the vicinity of valve vaults or planned excavated areas as identified on the Plans shall be paid for at the contract unit price per EACH (EA) as DISCONNECT AND ABANDON EXISTING WATER MAIN CONNECTION, and shall include all equipment, labor, and material necessary to complete the work.

If any water main is called out on the Plans or directed by the Engineer in the field to be filled with Controlled Low Strength Material (CLSM), this work shall be paid for at the contract unit price per CUBIC YARD (CY) for FILLING EXISTING SEWER OR WATER MAIN WITH CLSM.

Select granular trench backfill shall be considered incidental to the DISCONNECT AND ABANDON EXISTING WATER MAIN CONNECTION pay item.

5.9. RESTORATION

SP R.1 – SAW CUTTING

When called for on the Plans or where directed by the Engineer, the Contractor shall saw-cut existing bituminous concrete and/or Portland cement concrete pavement full depth to penetrate the base and sub-base, so as to completely separate the existing pavement to be removed from that to remain. It is the Contractor's responsibility to determine the thickness of the existing pavement and whether or not it contains reinforcement.

The work shall be performed in such a manner that a straight, vertical joint will be obtained. The saw cutting shall be done prior to the commencement of removal operations. Care shall also be taken by the Contractor so as not to damage the remaining pavement or surface directly adjacent to the pavement or surface to be removed. Any damage to the existing pavement or surface resulting from removal operations shall be repaired at the Contractor's expense, as directed by the Engineer.

The saw cutting shall be performed on both sides of the trenches for the proposed underground utilities. This work shall be performed prior to the commencement of the installation of the improvements as specified. It shall be the Contractor's responsibility to lay out the locations for the proposed saw cuts.

This work shall not be paid for separately but shall be considered incidental to the contract unit prices. Saw cutting required for items not listed above or designated elsewhere in the special provisions shall be considered incidental to the contract.

SP R.2 – TEMPORARY DRIVEWAY SURFACE, AND TEMPORARY PAVEMENT SURFACE

Restoration of all improvements on public property is to be done in an expeditious manner. Failure to conform to these requirements will result in the City causing such work to be done. All costs of such work, including administrative costs, will be charged to the Contractor along with a $500.00 penalty for each occurrence on Driveways, Local Roads and Minor Arterials, and $500.00 for each hour per occurrence on Major Collectors and Arterials during the peak traffic hours Monday through Friday between 7 AM to 9 AM and 3 PM to 7 PM, during non-peak hours the penalty shall be $500 per occurrence whereby the City must invoke this provision. The parties agreeing that actual damages to the City of Aurora would be uncertain and difficult to calculate and the amount of such liquidated damages is a reasonable estimate of the supervision costs likely to be incurred by the City of Aurora as a result of the Contractor's failure to temporarily or permanently restore public property as required.

PRIOR TO THE REMOVAL OF ANY PAVEMENT OR DRIVEWAYS, THE CONTRACTOR SHALL HAVE TEMPORARY PAVEMENT ON SITE, IN ORDER TO ENSURE THAT THE TEMPORARY PAVEMENT IS IN PLACE THE SAME DAY THAT THE EXISTING PAVEMENT IS REMOVED.

Where a temporary pavement surface has not been requested by the Engineer, the Contractor is encouraged to cap the surface with HMA grindings. However, HMA grindings will not qualify as a temporary pavement surface and will not be paid for as such.

Driveways

A cold mix **temporary surface** is required the same day of excavating the drive approach or the curb adjacent to the drive approach. The Contractor shall provide a temporary approach for all driveways across the width of the approach until the final surface is placed. Temporary driveways shall be inspected at the end of all workdays or in a timely manner to ensure the driveway surface remains usable to the satisfaction of the Engineer. Special attention shall be taken for handicapped residents or residents who may need imminent emergency care (expectant mothers, etc.). The Contractor and Engineer will work to identify special-needs residents to assure they have access to traffic or special vehicles at all times.

Local Streets and Minor Collectors

The Contractor shall place cold mix at street intersections, and/or at other locations as directed by the Engineer the same day of excavating the pavement. Cold Mix shall have a minimum of two inches (2") thickness. The temporary surface shall be removed prior to placing the permanent pavement the cost of which is included in this temporary pavement surface pay item. The temporary surface shall be maintained so that it will provide a smooth, usable surface with a minimum of distraction to traffic to the satisfaction of the Engineer. The Contractor shall be responsible for coring through the cold patch in order to jet trenches. After the trenches are thoroughly jetted and consolidated, additional cold patch shall be applied. At all locations where cold mix is not installed, the Contractor shall place and maintain a CA-6 crushed limestone surface. Holes shall be backfilled or steel-plated over weekends and holidays. The permanent patch to City specifications must be in place as soon as possible.

Special attention shall be taken for handicapped residents or residents who may need emergency trips to a hospital. The Contractor, as directed by the Engineer, shall work with special-needs residents to assure they have special access to traffic and/or special vehicles at all times.

Arterials and Major Collectors

The Contractor shall place Hot Mix Asphalt (HMA) at all excavated locations within active travel lanes and intersections, and at other locations as directed by the Engineer. The HMA depth shall have a minimum of two inches (2") thickness. The temporary surface shall be maintained so that it will provide a smooth, usable surface with a minimum of distraction to traffic to the satisfaction of the Engineer. The Contractor shall be responsible for coring through the temporary pavement in order to jet trenches. After the trenches are thoroughly jetted and consolidated, additional temporary pavement shall be applied. As an alternative, the Contractor may use cold mix asphalt. If cold mix is used, the Contractor shall inspect, repair and/or replace cold mix at all actively travelled locations, and at other locations as directed by the Engineer, on a daily basis when the temporary patch exceeds 1-inch of deviation (above or below) from the adjacent pavement or when excessive tracking of material occurs. Cold mix must be compacted with vibratory or heavy equipment – hand tamping shall not be allowed. Tracking of cold mix onto the travelled lanes shall be cleaned on a daily basis during off-peak traffic hours. The Contractor may use steel-plates, secured in place, to cover open excavations during weekends and holidays with appropriate warning signage. The use of CA-6 crushed limestone as a temporary patch is prohibited. The temporary surface shall be removed prior to placing the permanent pavement the cost of which is included in this temporary pavement surface pay item. HMA in good condition may be allowed to remain in place at the Engineer's discretion. Cold mix shall be removed and replaced with permanent pavement.

Special attention shall be taken for handicapped residents, residents who may need emergency trips to a hospital, and businesses and emergency services needing 24-hour access for public safety. The Contractor, as directed by the Engineer, shall work with special-needs residents, businesses, and services to assure they have special access to traffic and/or special vehicles at all times.

Measurement and Payment

The installation and maintenance of the temporary surface shall be paid for at the contract unit price per SQUARE YARD (SY) for TEMPORARY PAVEMENT, 2" which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

SP R.3 – HOT MIX ASPHALT PAVEMENT REMOVAL AND REPLACEMENT

This work shall consist of saw cutting, removing, and disposing of the existing roadway pavement and replacement with Hot Mix Asphalt pavement and aggregate base course in accordance with the IDOT Specifications, and as shown on the plan details. This work shall be performed after the successful completion of a proof roll.

Pavement patching shall extend six inches (6") past the stone trench width.

The cut faces of the existing pavement shall be primed in accordance with the IDOT Specifications.

Damages to existing pavement due to construction traffic and track machinery shall be repaired according to these specifications, to the limits dictated by the Engineer. The repair of damages to existing pavement due to construction traffic and track machinery shall **not** be paid for but shall be fully repaired at the Contractor's expense.

Prior to the placement of any permanent pavement, the Contractor shall perform a proof roll in accordance with the latest addition of the IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

Measurement and Payment

This work shall be paid for at the contract unit price per SQUARE YARD (SY) for CLASS D PATCHING of the thickness specified, which price shall be payment in full for all labor, materials including aggregate base, and equipment necessary to perform this work in accordance with the Plans, details, and specifications.[NS1] [JH2]

SP R.4 – HOT-MIX ASPHALT PAVEMENT SURFACE COURSE

This work shall consist of the placement of a one and one-half (1-1/2") layer of hot-mix asphalt surface course mix N50 after preparing and cleaning the base in accordance with the applicable portions of Section 406 of the Standard Specifications and as stated herein.

The Contractor shall begin the placing of bituminous surface so as to complete the work on the same day. The Contractor shall stagger the longitudinal joints in the surface course to provide a minimum offset distance of six inches (6") from the binder course. Prime coat in accordance with the IDOT Specifications is incidental.

This work shall be measured and paid for at the contract unit price per TON in place for HOT-MIX ASPHALT SURFACE COURSE 1-1/2", which price shall be payment in full for preparing and cleaning the base, application of prime coat, placement of bituminous mixture, and disposal of any unsuitable material, as specified herein and as directed by the Engineer.

SP R.5 – PCC DRIVEWAY PAVEMENT REMOVAL & REPLACEMENT

This work consists of the removal of existing residential and commercial drive approaches, and replacement with Portland concrete cement driveways and performing necessary earthwork (such as excavation or embankment) according to the proposed grade.

The replaced driveway shall be six inches (6") for residential approaches, and eight inches (8") for commercial approaches of Class PV Portland cement concrete, non-reinforced with a continuous, full depth bituminous fiber expansion joint at the sidewalk and at the back of the curb. The surface shall be cured and protected as per the requirements for sidewalk. The pavement shall be placed on a compacted stone or gravel base to a depth of four inches (4") minimum for residential, and 6" minimum for commercial. **Portland cement concrete driveways shall have contraction joints installed as shown on the plan details.**

The contractor shall be responsible for damage or vandalism to finished concrete surfaces until final acceptance of the project. Damaged or vandalized concrete shall be replaced at the discretion of the Engineer.

This item shall be paid for at the contract unit price per SQUARE YARD (SY) for PCC DRIVEWAY PAVEMENT REMOVAL & REPLACEMENT, for the thickness specified in the contract, measured in place, which price shall be payment in full for all labor, materials, and equipment necessary to complete this item in accordance with the Plans and specifications.

SP R.6 – HOT MIX ASPHALT DRIVEWAY PAVEMENT REMOVAL & REPLACEMENT

This work consists of the removal of existing residential and commercial drive approaches, and replacement with hot-mix asphalt driveways and performing necessary earthwork (such as excavation or embankment) according to the proposed grade.

The replaced driveway surface course shall be two inches (2") for residential approaches and four inches (4”) for commercial approaches. The driveway pavement shall be placed on a compacted stone or gravel base to a depth of four inches (4") minimum for residential, and 6” minimum for commercial.

This item shall be paid for at the contract unit price per SQUARE YARD (SY) for HOT MIX ASPHALT DRIVEWAY PAVEMENT REMOVAL & REPLACEMENT, for the thickness specified in the contract, measured in place, which price shall be payment in full for all labor, materials, and equipment necessary to complete this item in accordance with the Plans and specifications.

SP R.7 – COMBINATION PCC CURB AND GUTTER REMOVAL & REPLACEMENT

This work shall consist of the removal of existing and the installation of new combination (Portland Cement Concrete, PCC) curb & gutter of the type and size matching that which exists, or as directed by the Engineer, by method and materials specified in Articles 606 and 1020 of the Standard Specification for Road and Bridge Construction. The new combination PCC curb and gutter shall be installed in locations where the work has caused damage or loss of the existing curb, or as shown on the Plans or directed by the Engineer.

Removal of PCC curb and gutter shall include full depth saw cuts.

Construction of combination PCC curb and gutter shall include:

A. The excavation for, the supplying and placement of, four inches (4”) compacted CA-7 Aggregate base.
B. The placement of Class SI, PCC per the detail shown on the Plans.
C. The placement of reinforcement per the detail shown on the Plans.
D. The drilling and placement of dowel bars with grease caps into the existing adjoining concrete.
E. The placement of contraction joints, expansion joints, and construction joints per the detail and table shown on the Plans.
F. The application of curing and sealing compounds for Portland cement concrete per the PCC Sidewalk Removal & Replacement special provision below.
G. The backfilling of curb & gutter with material approved by the Engineer.

The contractor shall be responsible for damage or vandalism to finished concrete surfaces until final acceptance of the project. Damaged or vandalized concrete shall be replaced at the discretion of the Engineer.

This work shall be paid for at the contract unit price per FOOT (LF) for COMBINATION PCC CURB & GUTTER REMOVAL & REPLACEMENT and shall include all labor, material, and equipment necessary for installation as specified herein. Saw cutting, expansion joints, reinforcement, and dowel bars shall be considered incidental to this item.

SP R.8 – PCC SIDEWALK REMOVAL AND REPLACEMENT, 5” AND DETECTABLE WARNINGS

This work shall consist of removing the existing sidewalk and placing a PCC Sidewalk in accordance with Section 424 and 440 of the Standard Specifications, the details included and as directed by the Engineer.

The Contractor shall saw cut, remove and dispose of sidewalks marked in the field for removal and prepare the subgrade to provide for the proposed sidewalk and 2" of compacted granular material, CA-6.

At locations where sidewalk shall be lowered to meet ADA accessibility requirements, the Contractor shall excavate subbase and subgrade as required to properly construct the lowered sidewalk. Earth excavation and disposal required to achieve the desired subgrade shall be considered incidental to the cost of the sidewalk.

Sidewalk ramps may require curb installation along the edge of the ramp where adjacent grading is prohibitive. In this application barrier curbs will be poured monolithically on each side of the curb ramp. These Barrier Curbs will be paid for at the contract unit price per FOOT (LF) of BARRIER CURB and shall include all labor, material, earth excavation and disposal, and equipment necessary for installation as specified herein.

Sidewalk shall be completely formed with lumber of 1½” nominal thickness and held securely in place with stakes.

All replacement sidewalks shall be a minimum of 5" thick. Sidewalk through driveways shall be increased to 6” thick for residential and 8” thick for commercial drive approaches. Sidewalk curb ramps shall be increased to 6" thick. The additional thickness will not be paid for separately but shall be considered incidental to Sidewalk Removal and Replacement.

The concrete used shall be Class SI concrete in accordance with Section 424 and 440 of the Standard Specifications, and should be cured as specified in the current issue of the Standard Specifications for Road and Bridge Construction. Membrane curing with W. R. Meadows CS 309, or approved equal, will be allowed with a white fugitive dye as per Type II membrane curing.

All sidewalk shall be sealed with W. R. Meadows "TIAH", or approved equal, immediately after seven (7) days of curing at a rate of 300 sq.ft. per gallon, utilizing a spray application. The surface must be thoroughly clean and dry at time of application.

The surface finish shall be a light broom finish.

The sidewalk shall be constructed with construction joints at five foot (5') intervals and shall be saw cut to a minimum depth of one inch (1") full width within twenty-four (24) hours of concrete placement, or tooled at the time of placement to the same depth.

Expansion joints of three-fourths inches (3/4") full depth bituminous fiber material are required where the new sidewalk abuts all curb, buildings, poles, other structures, through all drives on each side, and spaced as specified in the Plans, at the recommended spacing based on the pour temperature, or as directed by the Engineer.

The contractor shall be responsible for damage or vandalism to finished concrete surfaces until final acceptance of the project. Damaged or vandalized concrete shall be replaced at the discretion of the Engineer.

At locations as directed by the Engineer, the Contractor shall excavate sod, topsoil and other material to install subbase granular material and a new sidewalk. Subbase thickness at these locations shall be 4". Earth Excavation required for this work will not be paid for separately but shall be considered incidental to this item.

Sidewalk curb ramps with detectable warning surface shall be constructed according to Standard 424001 and the details included. The Detectable Warning area shall be Red Color, 2' X 4' or 2' X 5' as required.

This work will be paid for at the contract unit price per SQUARE FOOT (SF) for PCC SIDEWALK REMOVAL & REPLACEMENT, 5" and DETECTABLE WARNINGS, which price shall include all labor and equipment necessary to remove the existing sidewalk, earth excavation and disposal, subbase material, disposal and placing sidewalk and furnishing and installing detectable warnings as specified herein. Root cutting and disposal of roots shall be considered incidental to this item.

SP R.9 – AGGREGATE SHOULDER

This work shall consist of the installation of new aggregate shoulder of the depth which exists, or as directed by the Engineer, by method and materials specified in Articles 481 and 1004 of the Standard Specification for Road and Bridge Construction. The new aggregate shoulder shall be installed in locations where the work has caused damage or loss of the existing aggregate shoulder, or as shown on the Plans.

All select granular material shall meet IDOT specifications. Material excavated as part of this project shall not be processed on site for re-use. This work shall be paid for at the contract unit price per TON for AGGREGATE SHOULDER which shall be payment in full for all material, equipment, and labor necessary to perform this work in accordance with the Plans, specifications, and as directed by the Engineer.

SP R.10 – SEEDING - AURORA MIX:

This work shall consist of re-establishing swales and ditch lines, furnishing and placing 6" of pulverized top soil, fine grading, fertilizer, sowing of "Aurora Mix" grass seed by hand raking, and installing loose straw mulch stabilized with hydraulic mulch at the locations designated by the Engineer in accordance with the applicable portions of Section 250 and 251 of the Standard Specifications for Road and Bridge Construction.

Fertilizer nutrients shall be applied to the prepared areas at a 9:18:9 ratio at a rate of 200 pounds per acre.

Aurora Mix:

The City of Aurora grass seed mixture consists of:

24.93% ASAP Perennial Ryegrass

24.46% Caddieshack Perennial Ryegrass

24.33% Goalkeeper Perennial Ryegrass

12.37% Geronimo Kentucky Bluegrass

12.29% Kentucky Bluegrass (variety not stated)

1.34% Inert Matter, 0.28% Crop, 0.00% weed

This mixture shall be sown in such a manner as to produce a growth of grass similar in quality and appearance to the grass of adjoining areas. Grass seed mix shall be proportioned by weight and planted at a minimum rate of eight (8) pounds per thousand (1,000) square feet. Seeds furnished shall be first grade in quality, high in germination, and free from weeds. Seed shall not be sown in high wind, foul weather conditions, or when ground conditions are not proper in the opinion of the Engineer.

Within twenty-four (24) hours from the time seeding has been performed, the seeded area shall be covered with loose straw mulch and immediately stabilized in accordance with Method 2, Procedure 2 of Article 251.03 of the Standard Specifications.

The Contractor shall notify the Engineer a minimum of 48 hours prior to performing any landscape restoration. The Contractor shall demonstrate to the Engineer seeding and fertilizer applications rates prior to performing this work. Documentation regarding seed mixtures and fertilizer concentrations shall be provided to the Engineer prior to performing this work. In the event that the Contractor fails to adhere to these requirements, the work shall not be eligible for payment.

This work shall not be considered complete until a mowable weed-free stand of grass is obtained.

Measurement and Payment: The work specified herein shall be paid for by the contract unit price per SQUARE YARD (SY) for SEEDING – AURORA MIX, which price shall be payment in full for all labor, materials, and equipment necessary, including pulverized top soil, loose straw mulch covered with hydraulic mulch, and all other appurtenances required to perform this work in accordance with the Plans, details, and specifications.

SP R.11 – COMBINATION PCC CURB AND GUTTER EXCAVATION AND INSTALLATION

This work shall consist of earth excavation and the installation of new combination (Portland Cement Concrete, PCC) curb & gutter of the type as directed by the Engineer, by method and materials specified in Articles 606 and 1020 of the Standard Specification for Road and Bridge Construction. The new combination PCC curb and gutter shall be installed as shown on the Plans or directed by the Engineer.

Removal of PCC curb & gutter shall include full depth saw cuts, removal, disposal of the existing roadway pavement, and removal of PCC curb and gutter.

Excavation of PCC curb & gutter shall include up to a 6” excavation cut beyond the required excavation for the placement of compacted aggregate base and PCC curb & gutter.

Construction of combination PCC curb and gutter shall include:

1. The excavation for, the supplying and placement of, four inches (4”) compacted CA-7 Aggregate base.
2. The placement of Class SI, PCC per the detail shown on the Plans.
3. The placement of reinforcement per the detail shown on the Plans.
4. The drilling and placement of dowel bars with grease caps into the existing adjoining concrete.
5. The placement of contraction joints, expansion joints, and construction joints per the detail and table shown on the Plans.
6. The application of curing and sealing compounds for Portland cement concrete per the PCC Sidewalk Removal & Replacement special provision below.
7. The backfilling of curb & gutter with material approved by the Engineer.

The contractor shall be responsible for damage or vandalism to finished concrete surfaces until final acceptance of the project. Damaged or vandalized concrete shall be replaced at the discretion of the Engineer.

This work shall be paid for at the contract unit price per FOOT (LF) for COMBINATION PCC CURB & GUTTER EXCAVATION AND INSTALLATION and shall include all labor, material, and equipment necessary for installation as specified herein. Saw cutting, excavation, spoil disposal, expansion joints, reinforcement, and dowel bars shall be considered incidental to this item.

SP R.12 – PCC GUTTER EXCAVATION AND INSTALLATION

This work shall consist of earth excavation removing, and disposing of the existing roadway pavement and replacement with (Portland Cement Concrete, PCC) gutter of the type as directed by the Engineer, by method and materials specified in Articles 606 and 1020 of the Standard Specification for Road and Bridge Construction. The new combination PCC curb and gutter shall be installed as shown on the Plans or directed by the Engineer.

Removal of PCC curb and gutter shall include full depth saw cuts.

Excavation of PCC gutter shall include up to a 6” excavation cut beyond the required excavation for the placement of compacted aggregate base and PCC gutter.

Construction of PCC gutter shall include:

1. The excavation for, the supplying and placement of, four inches (4”) compacted CA-7 Aggregate base.
2. The placement of Class SI, PCC per the detail shown on the Plans.
3. The placement of reinforcement per the detail shown on the Plans.
4. The drilling and placement of dowel bars with grease caps into the existing adjoining concrete.
5. The placement of contraction joints, expansion joints, and construction joints per the detail and table shown on the Plans.
6. The application of curing and sealing compounds for Portland cement concrete per the PCC Sidewalk Removal & Replacement special provision below.
7. The backfilling of curb & gutter with material approved by the Engineer.

The contractor shall be responsible for damage or vandalism to finished concrete surfaces until final acceptance of the project. Damaged or vandalized concrete shall be replaced at the discretion of the Engineer.

This work shall be paid for at the contract unit price per SQUARE YARD (SY) for PCC GUTTER EXCAVATION & INSTALLATION and shall include all labor, material, and equipment necessary for installation as specified herein. Saw cutting, excavation, spoil disposal, expansion joints, reinforcement, and dowel bars shall be considered incidental to this item.

6. PRICING TABLE

Line Item	Description	Quantity	Unit of Measure	Unit Cost	Total
1	Select Granular Trench Backfill	5378	CY		
2	Disconnect and Abandon Existing Sewer Connection	7	EA		
3	Storm Structures to be Removed	5	EA		
4	Sanitary Manhole Inverts to be Brick and Mortared	9	EA		
5	Unsuitable Soil Removal and Replacement	200	CY		
6	Exploration Trench, 6 Ft	30	LF		
7	Restrained Joint Gasket, 8"	20	EA		
8	Zinc Coated DIP WM, Cl 52, 6" w/V-bio Polywrap	50	LF		
9	Zinc Coated DIP WM, Cl 52, 8" w/V-bio Polywrap	3850	LF		
10	8" MJ Gate Valve in 48" Vault	10	EA		
11	Additional Fittings	500	LB		
12	Disconnect and Abandon Existing Water Main Connection	4	EA		
13	Water Structures to be Abandoned	10	EA		
14	Fire Hydrant Assembly Removal	4	EA		
15	Fire Hydrant Assembly	9	EA		
16	Connect to Existing 4" WM	1	EA		
17	Connect to Existing 6" WM	5	EA		
18	Connect to Existing 8" WM	5	EA		
19	Water Main Lowering, 8" DIP CL 52	30	LF		
20	Water Main Insulation	585	LF		
21	1" Dia. Curb Stop & B-box	119	EA		
22	Connect to Existing 1" Dia. Curb Stop & B-box	4	EA		
23	1" Dia. Tap and Corp Stop	123	EA		
24	Trenchless HDPE Water Service, 1"	200	LF		
25	Trenchless Copper Water Service, 1"	7485	LF		
26	Interior Connection to Water Meter w/Slab	12	EA		
27	Interior Connection to Water Meter w/Basement or Crawl Space	107	EA		

Columns

	Total

Line Item	Description	Quantity	Unit of Measure	Unit Cost	Total
1	Items Ordered by Engineer	1	Allowance	$200,000.00	
	Total				**$**

Columns

7. VENDOR SUBMISSIONS

1. Bid Deposit*

Bid Deposit MUST be uploaded electronically with submission through the City's E Procurement System, OpenGov. Upon notification from the City, Bidder's must deliver ORIGINAL Bid Deposit within three (3) business days.

*Response required

2. IDOT Prequalification*

*Response required

3. Contact Information*

Please download the below documents, complete, and upload.

COA_Contact_Information.docx

*Response required

4. References*

Include Municipality, Address, Phone Number, Contact Person, Date of Project for each reference

Enter response

*Response required

5. Sub-Contractor List*

Please provide the following information for each subcontractor. If you do not have subcontractors, please write "N/A"

Company:

Address:

City, State, Zip:

Phone Number:

Contact Person:

Enter response

*Response required

6. Eligibility*

By signing this Proposal, the Proposer hereby certifies that they are not barred from bidding on this Proposal as a result of a violation of Article 33E, Public Bids of the Illinois Criminal Code of 1961, as amended (Illinois Compiled Statutes, 720 ILCS 5/33E-1).

Please confirm

*Response required

7. Bidder's Tax Certification*

The Bidder's Executing Officer, being first duly sworn on oath, deposes and states that all statements made herein are made on behalf of the Bidder, that this deponent is authorized to make them and that the statements contained herein are true and correct.

Bidder deposes, states and certifies that Bidder is not barred from contracting with any unit of local government in the State of Illinois as result of a delinquency in payment of any tax administered by the Illinois Department of Revenue unless Bidder is contesting, in accordance with the procedures established by the appropriate statute, its liability for the tax or the amount of the tax, all as provided for in accordance with 65 ILCS 5/11-42.1-1.

☐ Please confirm

*Response required

8. Bidder's Certification*

I/We hereby certify that:

A. A complete set of bid papers, as intended, has been received, and that I/We will abide by the contents and/or information received and/or contained herein.

B. I/We have not entered into any collusion or other unethical practices with any person, firm, or employee of the City which would in any way be construed as unethical business practice.

C. I/We have adopted a written sexual harassment policy which is in accordance with the requirements of Federal, State and local laws, regulations and policies and further certify that I/We are also in compliance with all other equal employment requirements contained in Public Act 87-1257 (effective July 1, 1993) 775 ILCS 5/2-105 (A).

D. As applicable, I/We are in compliance with the most current “Prevailing Rate” of wages for laborers, mechanics and other workers as required by the State of Illinois Department of Labor.

E. I/We operate a drug free environment and drugs are not allowed in the workplace or satellite locations as well as City of Aurora sites in accordance with the Drug Free Workplace Act of January, 1992.

F. The Bidder is not barred from bidding on the Project, or entering into this contract as a result of a violation of either Section 33E-3 or 33E-4 of the Illinois Criminal Code, or any similar offense of “bid rigging” or “bid rotating” of any state or the United States.

G. As applicable, I/We will submit, for all contracts in excess of $25,000.00, a certificate indicating participation in apprenticeship and training programs approved and registered with the United States Department of Labor.

H. I/We will abide by all other Federal, State and local codes, rules, regulations, ordinances and statutes.

☐ Please confirm

*Response required

9. Apprenticeship or Training Program Certification*

Please download the below documents, complete, and upload.

Aurora_Training_Program_Cert.pdf

*Response required

10. Union/Apprenticeship Requested Documentation*

Please provide verification letter like sample attached.

Apprenticeship_Program_Letter_of_Verification_EXAMPLE.pdf

*Response required

11. Local Vendor Preference Application*

Please download the below documents, complete, and upload.

COA_2024_Local_Preference_Vendor_Application_FILLABLE.pdf

*Response required

12. Standard City of Aurora Contract*

Please download the below documents, complete, and upload.

Sample_Standard_Contract_ITB.pdf

*Response required

13. Certificate of Insurance (COI)*

A prospective contractor shall submit a compliant Certificate of Insurance (COI) with its bid or proposal, evidencing the coverage required for the project in accordance with City of Aurora Policy No. 2026-2502-002. All required insurance policies must remain in full force and effect for the duration of the project.

*Response required

14. Additional Information