

PROPOSAL SUBMITTED BY:

Contractor's Name

Street

P.O. Box

City

State

Zip Code



CITY OF AURORA
KANE COUNTY
STATE OF ILLINOIS

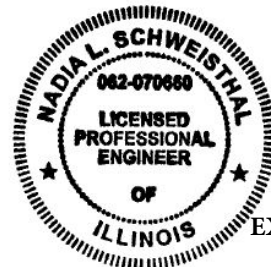
PROPOSAL AND SPECIFICATIONS FOR

Keating Drive Water Main Improvements

AURORA, ILLINOIS

June, 2024

Bid 24-076



EXP. 11/30/25

Nadia L. Schweisthal

06/07/24

PREPARED BY
CITY OF AURORA
Engineering Division
77 S. Broadway Avenue
AURORA, ILLINOIS 60507

TABLE OF CONTENTS

TITLE PAGE

TABLE OF CONTENTS

[NOTICE TO BIDDERS](#)

[SPECIAL PROVISIONS](#)

[STATE OF ILLINOIS LABOR REQUIREMENTS](#)

[CITY OF AURORA GENERAL SPECIFICATIONS](#)

[BID BOND FORM](#)

[PROPOSAL](#)

[SCHEDULE OF PRICES](#)

[SIGNATURE SHEET](#)

[BIDDER'S CERTIFICATIONS](#)

[APPRENTICESHIP OR TRAINING PROGRAM CERTIFICATION](#)

[BIDDER'S TAX CERTIFICATION](#)

[LOCAL VENDOR PREFERENCE APPLICATION](#)

[APPENDIX A](#)

[WCL RAILROAD INSURANCE REQUIREMENTS](#)

[WCL FLAGGER REQUEST](#)

[ONEOK LETTER OF NO OBJECTION/CONSTRUCTION REQUIREMENTS](#)

[ENBRIDGE CROSSING REQUIREMENTS](#)

City of Aurora

Bid 24-076

NOTICE TO BIDDERS

Time and Place of Opening of Bids

Sealed proposals for the improvement described below will be received at the office of the City Clerk, 44 E Downer Place, First Floor, Aurora, IL 60505 until **11:00 AM, Wednesday, June 26, 2024**. Proposals will be opened and read publicly at the above address on **Wednesday, June 26, 2024** at **11:00 AM** for those wishing to attend in person. The bid opening will also be live streamed, access details to be provided to all plan holders.

Description of Work

Name: **Keating Drive Water Main Improvements**

Location: **Keating Drive between Normantown Road and Middlebury Drive**

Proposed Improvement: **Installation of 900' of 16' water main including 100' of bore and jacking 30" steel casing pipe underneath railroad** and other miscellaneous appurtenances all in accordance with the Plans and specifications.

Bidder Instructions

1. Plans, specifications, and proposal forms will be available on **Monday, June 10th, 2024** and may be obtained at online at: <https://www.aurora-il.org/bids.aspx>.
2. **Prequalification of Bidders as contained in Check Sheet LRS6 in the "Supplemental Specifications and Recurring Special Provisions" is required on this project. All proposals must be accompanied by a proposal guaranty as outlined in the Proposal form.**
3. The Awarding Authority reserves the right to waive technicalities and to reject any or all proposals as provided in Standard Provisions for Bidding Requirements and Conditions for Contract Proposals contained in the "Supplemental Specifications and Recurring Special Provisions".
4. Any bidder who owes the City money may be disqualified at the City's discretion.
5. The City encourages minority business firms to submit proposals and encourages the successful contract bidder to utilize minority businesses as subcontractors for supplies, equipment, services, and construction.
6. Submission of a bid shall be conclusive assurance and warranty the bidder has examined the Plans and understands all requirements for the performance of work. The bidder will be responsible for all errors in the proposal resulting from failure or neglect to conduct an in depth examination. The Awarding Authority will, in no case be responsible for any costs, expenses, losses or changes in anticipated profits resulting from such failure or neglect of the bidder.
7. The City of Aurora has a local preference ordinance that would apply to this contract.

By Order of
City Clerk
City of Aurora

INDEX TO SPECIAL PROVISIONS

Provision Title

Number

ADMINISTRATION

[SP A.1](#) – ALTERATIONS TO PROJECT BY ENGINEER

[SP A.2](#) – ITEMS ORDERED BY ENGINEER

[SP A.3](#) – RESPONSIBILITY OF WORK

[SP A.4](#) – PUBLIC SAFETY AND CONVENIENCE

[SP A.5](#) – COMPLETION DATE

[SP A.6](#) – PERFORMANCE GUARANTEE OF WORK

[SP A.7](#) – WORK DAYS AND HOURS

[SP A.8](#) – INCIDENTAL WORK

[SP A.9](#) – PRE-CONSTRUCTION MEETING

[SP A.10](#) – NOTIFICATION

[SP A.11](#) – CONTROL OF MATERIALS

[SP A.12](#) – RECORD DRAWINGS

SAFETY

[SP S.1](#) – TRAFFIC CONTROL AND PROTECTION

[SP S.2](#) – RESPONSIBILITY FOR CONSTRUCTION SAFETY, SHORING AND CONSTRUCTION METHODS

[SP S.3](#) – LOCATION OF UTILITIES

HOUSEKEEPING/SOIL EROSION & SEDIMENT CONTROL

[SP H.1](#) – SOIL EROSION CONTROL

[SP H.2](#) – DUST CONTROL AND DIRT ON PAVEMENT

[SP H.3](#) – CLEANING ALL STRUCTURES

[SP H.4](#) – ~~HEAVY CLEANING OF SEWERS~~

[SP H.5](#) – DISPOSAL OF DEBRIS AND EXCAVATED MATERIAL

[SP H.6](#) – HAZARDOUS SPILL REMEDIATION

GENERAL

[SP G.1](#) – MOBILIZATION

[SP G.2](#) – WATER FOR CONSTRUCTION PURPOSES

[SP G.3](#) – SURFACE RESTORATION

[SP G.4](#) – ~~REMOVAL / ABANDONING OF SEWERS AND/OR WATER MAINS~~

[SP G.5](#) – ~~STORM, SANITARY AND WATER STRUCTURES TO BE ABANDONED~~

[SP G.6](#) – TRENCH BACKFILL, PIPE BEDDING, AND COVER

[SP G.7](#) – COMPACTION REQUIREMENTS

[SP G.8](#) – PIPE AND PRE-CAST CONCRETE STRUCTURES MATERIAL TESTS

[SP G.9](#) – ~~STRUCTURE TAPS~~

[SP G.10](#) – ~~MAILBOX REMOVAL AND REINSTALLATION~~

[SP G.11](#) – ~~FIBER OPTIC CONDUIT~~

[SP G.12](#) – EXPLORATORY EXCAVATION

[SP G.13](#) – ~~REMOVE AND PLUG ABANDONED WATER SERVICES~~

[SP G.14](#) – TREE TRIMMING

[SP G.15](#) – ~~TREE ROOT PRUNING~~

[SP G.16](#) **TRACK MONITORING**

<i>Provision Number</i>	<i>Title</i>
-----------------------------	--------------

STORM SEWERS

[SP ST.1](#) – STORM SEWERS

WATER MAIN

[SP W.1](#) – WATER MAIN INSTALLATION

~~[SP W.2](#) – WATER SERVICE/WATER SERVICE RELOCATION~~

[SP W.3](#) – WATER MAIN AND WATER SERVICE CROSSINGS

[SP W.4](#) – WATER MAIN LOWERING

[SP W.5](#) – GATE VALVE AND VALVE BOX FOR WATER MAINS

[SP W.6](#) – VALVE IN VALVE VAULT

[SP W.7](#) – CONNECTIONS TO EXISTING WATER MAINS

[SP W.8](#) – FIRE HYDRANT ASSEMBLY

~~[SP W.9](#) – FIRE HYDRANT REMOVAL~~

[SP W.10](#) – PRESSURE TESTING WATER MAINS

[SP W.11](#) – PROTECTION AGAINST CORROSION

[SP W.12](#) – FLUSHING OF WATER MAINS

[SP W.13](#) – REQUIREMENTS OF CHLORINE

~~[SP W.14](#) – LINE STOP~~

~~[SP W.15](#) – DIRECTIONAL DRILLING WATER MAIN INSTALLATION~~

[SP W.16](#) **BORE AND JACK WATER MAIN INSTALLATION**

RESTORATION

[SP R.1](#) – SAW CUTTING

[SP R.2](#) – TEMPORARY DRIVEWAY SURFACE, AND TEMPORARY PAVEMENT SURFACE

[SP R.3](#) – HOT MIX ASPHALT PAVEMENT REMOVAL AND REPLACEMENT

~~[SP R.4](#) – HOT MIX ASPHALT PAVEMENT SURFACE COURSE~~

~~[SP R.5](#) – PCC DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT~~

~~[SP R.6](#) – HOT MIX ASPHALT DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT~~

[SP R.7](#) – COMBINATION P.C.C. CURB AND GUTTER

[SP R.8](#) – PCC SIDEWALK REMOVAL AND REPLACEMENT, 5” AND DETECTABLE WARNINGS

~~[SP R.9](#) – AGGREGATE SHOULDER~~

[SP R.10](#) – SEEDING – AURORA MIX

CITY OF AURORA SPECIAL PROVISIONS

Revised 1/2024

The following Special Provisions supplement the 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 **Keating Drive Water Main Improvements, Bid 24-076** and in case of conflict with any part or parts of said specifications; these Special Provisions shall take precedence and shall govern.

DESCRIPTION OF PROJECT:

Project description and other miscellaneous appurtenances all in accordance with the Plans and specifications.

All questions should be received by the Purchasing Division, in writing at PurchasingDL@aurora.il.us , by 4 pm Friday, June 21, 2024. Questions will be answered via addendum and posted to the City's website at <https://www.aurora-il.org/bids.aspx> by 4:00 pm, Monday, June 24, 2024 if required. All questions received after Friday will not be addressed.

SUMMARY OF 2024 MAJOR SPECIAL PROVISION REVISIONS:

- **[SP A.10 – NOTIFICATIONS](#)**
- **[SP A.12 – RECORD DRAWINGS](#)**
- **[SP G.13 – REMOVE AND PLUG ABANDONED WATER SERVICES](#)**
- **[SP SN.3 – CURED IN PLACE SANITARY SEWER LINING](#)**
- **[SP SN.5 – SANITARY SERVICE CROSSINGS](#)**
- **[SP SN.9 – CEMENT LINING OF INTERIOR WALLS](#)**
- **[SP W.2 – WATER SERVICE/WATER SERVICE RELOCATION](#)**
- **[SP ST.2 – STORM MANHOLES](#)**
- **[SP ST.7 – FURNISH NEW FRAME AND LID](#)**
- **[SP SN.7 – SANITARY MANHOLES](#)**
- **[SP SN.13 – LID REPLACEMENT](#)**
- **[SP SN.14 – FURNISH NEW FRAME AND LID](#)**
- **[SP W.6 – VALVE IN VALVE VAULT](#)**

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 may be 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 drives, 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 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 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 not 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 Final completion of the entire project by November 15, 2024.**

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 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 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 Owner and in accordance with written directions of the Owner, 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 Owner 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 allowed hours of work are between 7:00 AM and 7:00 PM, Monday through Friday, and between 8:00 AM and 5:00 PM on Saturdays. No work shall be done on Sundays or Holidays.

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 this time, the Contractor shall be required to furnish and/or discuss the following:

- Notify Engineer 14 days prior to construction start for lead service notifications.
- 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.
 - Notify Water and Sewer Maintenance Division 48 hours prior to any water main shutdown.
- 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 the 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 three (3) working days (72 hours) prior to starting the project, and a minimum of two (2) working days (48 hours) prior to starting each different type of work. The Engineering shall also be notified a minimum of 14 days prior to construction to comply with lead service notification requirements.

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.

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 project.

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.

Bid Number 24-076

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:

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.

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 as unacceptable and unauthorized and will not be paid for.

SP A.12 - RECORD DRAWINGS

Contractor shall provide level, rod, etc. and laborer in assisting Engineer to verify changes. This work shall not be paid for separately, but shall be considered incidental to the Contact.

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 flagmen 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, flagmen, 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 (FT) 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 in the course of 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 Bidder, 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 Electrical Department (630) 892-1415, Water and Sewer Department (630) 256-3710, 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.

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 Plans.

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 for INLET PROTECTION. The supply and installation of a filtration bag shall be paid for at the contract unit price per EACH 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 LINEAL 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 unit prices above.

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.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.

*This project is eligible for free **CONCRETE DISPOSAL ONLY** at the Heartland Recycling Facility at 213 Mettel Road, Aurora, IL (Heartland) when they are open and accepting concrete materials. PCC shall be in segments no larger than two foot in any one dimension. PCC taken to Heartland shall be transported separately from all other materials. Failure to comply with the material acceptance procedures at Heartland could result in the assessment of "hard to handle" fees; the Contractor will not be compensated for any such fees should they be assessed.*

*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 FACILITY 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 Contractor for any of this work should it occur.

SP G.1 – MOBILIZATION

This item consists of transportation and set up 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 his 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 649 S. River Street 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.6 – 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.7 – 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.

SP G.8 – 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.12 – EXPLORATORY EXCAVATION

This work shall consist of excavating exploratory trenches in pavement for the purpose of ascertaining 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 selected granular trench backfill and shall place temporary pavement if needed.

This work shall be paid for at the contract unit price per FOOT (FT) for EXPLORATORY EXCAVATION of the depth specified. This unit price shall include all necessary saw cutting, pavement removal, excavation, removal of spoil off-site, backfilling, and placement of temporary pavement if necessary.

SP G.14 – 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.16 -TRACK MONITORING

This work shall consist of developing and implementing a Track Monitoring Program to provide pre-construction and post-construction track surveys and daily monitoring of the WCL Railroad tracks for vertical and horizontal movements during all operations that may impact the existing railroad embankment. These operations shall include, but not be limited to:

1. Installation and removal of all TEMPORARY SOIL RETENTION SYSTEM in accordance with Article 522.07 of the Standard Specifications
2. All backfilling operations

The Track Monitoring Program shall adhere to all guidelines and restrictions as set forth by the WCL Railroad. No construction activities impacting the existing WCL Railroad embankment shall be permitted prior to approval of the Track Monitoring Program by the Engineer and the WCL Railroad.

A Track Monitoring Program to be implemented by the Contractor shall be prepared and sealed by a Professional Engineer licensed in the state of Illinois who is experienced in this type of construction and shall be submitted to the WCL Railroad and the Engineer for approval prior to the start of any survey work.

As part of the Track Monitoring Program, the following submittals, at a minimum, shall be provided to the Engineer and WCL Railroad:

1. Pre-Construction survey report
2. Post-Construction survey report
3. Weekly track condition reports
4. Contingency Plan

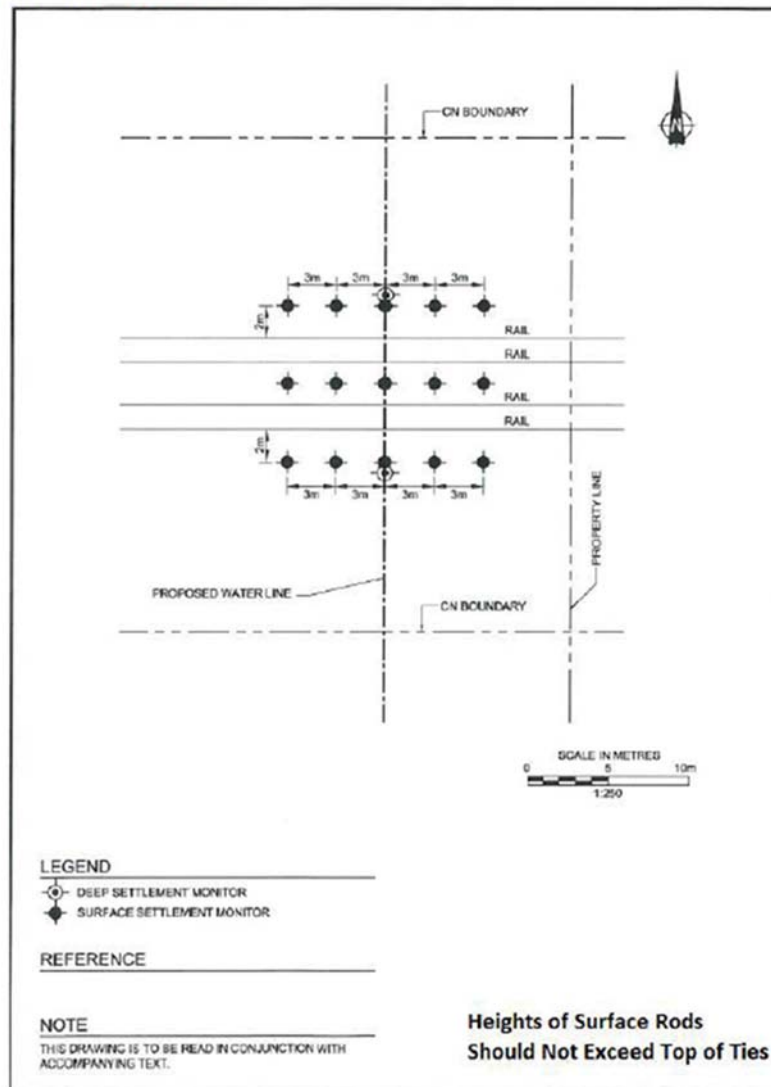
The Track Monitoring Program must be submitted for review at least 30 days before commencement of construction activities impacting the existing railroad embankment.

Prior to the start of any work on the WCL Railroad's right-of-way, the Contractor shall meet with the WCL Railroad Representative to determine their requirements for flaggers and all other necessary items related to the work activities on, over and next to the WCL Railroad facilities.

A pre-construction track survey and inspection shall be performed prior to any construction operations taking place which shall consist of the Contractor establishing a horizontal baseline and track elevations. The following track monitoring criteria, at a minimum, shall be met:

1. Each rail shall be monitored 20' north and 20' south of the proposed water main.
2. Establish at least ten (10) monitoring points and two (2) deep settlement monitoring points.
See image below:

A-1. Monitoring Points Requirements



3. Baseline values shall be set a week prior to the construction of the TEMPORARY SOIL RETENTION SYSTEM, or any alternate construction activity impacting the railroad embankment that may proceed earth retention elements.
4. Monitor horizontal and vertical ground and track displacements at least three (3) times daily for the first week and at least once daily thereafter. During Temporary Soil Retention System installation, ground displacements shall be monitored on a near continuous basis using a remote monitoring system capable of provided real-time data. Continue monitoring for at least two weeks after the completion of the construction operation.
5. The WCL Railroad shall be notified of any movement noticed during track monitoring, even when below the 1/8" threshold value. The Contractor's Contingency Plan shall be enacted when movements reach the 1/8" threshold value.
6. If ground surface displacements are still occurring after two weeks, continue monitoring up to another four weeks until the displacement stabilizes, or as directed by the WCL Railroad or the Engineer.

The Contingency Plan shall be implemented if the track displacements exceed the threshold (1/8") movement value. Construction activities must be discontinued if track movements exceed the 1/4" shutdown value as established by the pre-construction track survey. Permissible mitigation measures to correct excessive movement of the tracks may include, but are not limited to:

1. Compaction grouting through the embankment to raise the grade
2. Coordination with the WCL Railroad to re-level the tracks affected. Track re-leveling would be done by WCL Railroad forces at their earliest convenience.

Any mitigation measures shall be the responsibility of the Contractor, performed at the Contractor's expense prior to resuming construction operations. Construction shall not resume until mitigation measures are satisfactory to the WCL Railroad.

The Track Monitoring Program shall utilize a remote monitoring system that does not require fouling of the tracks to take the survey readings; fouling the tracks to survey movement is not acceptable other than to place any track monitoring targets. Monitoring targets should be placed such that monitoring is possible when a train is present. However, monitoring during the passing of a train is not required. The same targets should be maintained throughout the duration of the Track Monitoring Program. Targets should be removed once the monitoring phase is completed.

Track conditions shall be documented and tabulated for weekly submittal to the WCL Railroad and the Engineer.

The Contractor shall complete a post-construction track survey and inspection after completion of the operation. The post-construction track survey shall consist of the Contractor surveying the same points taken during the pre-construction track survey, taking horizontal and vertical measurements, for a period of fourteen (14) consecutive calendar days and as accepted by the WCL Railroad and the Engineer. If multiple operations are on-going concurrently, the post-construction track survey shall be performed based off the operation that is completed last. All pre-construction and post-construction track survey work shall be included in the cost of the daily track monitoring.

The track monitoring will be measured for payment per calendar day until the post-construction track survey is completed. Additional track monitoring that extends beyond the post-construction track survey due to continued ground surface displacements will not be measured for payment.

This work will be paid for at the contract unit price per calendar day for TRACK MONITORING.

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 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.

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 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 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/m² 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 Casing

Joints for water main to be installed inside casing pipes shall be either mechanical joint or push on with Field Lok 350 gaskets or approved equal. Casing pipe shall consist of the pipe size and type as specified on the Plans. Casing spacers manufactured by Cascade Waterworks Mfg. or an Engineer approved equal shall be utilized in the pipe. The location of the spacers shall be per the manufacturers recommendations which shall be included in the cost of the casing pipe. The ends of the casing pipe shall be capped with a rubber seal or Engineer approved equal also included in the cost of the casing pipe. This work shall be paid for at the contract unit price per FOOT (FT) for WATER MAIN CASING of the diameter specified, which shall be payment in full for all labor, equipment and material required to install the casing pipe with spacers and end caps as shown on the Plans or as directed by the Engineer in the field.

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 Owner. 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 (FT) 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.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 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.

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 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 length of lowered main shall be paid for at the contract unit price per FOOT (FT) for WATER MAIN LOWERING of the size specified in the contract, which shall be payment in full for all equipment, labor, and material required.

Fittings required to lower the mains shall not be paid for separately, but shall be considered incidental to WATER MAIN LOWERING.

Select Granular Trench Backfill and surface restoration shall be paid for separately.

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 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 snugly 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 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
Bid Number 24-076

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. Composite rings shall be set with 3/8"x3.5" butyl rope between each ring, frame and/or top of structure in lieu of the manufacturer recommended sealant. Any adjustment to the proposed structure required to match existing or proposed grade, shall be incidental to this item.

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 for MJ VALVE IN VAULT of the 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 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 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 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.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.

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 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** 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 (FT) 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 (Inch)	Flow Required to Produce 3.0 ft/s Velocity in Main (gpm)	Size of Tap			Number of 2-1/2 inch Hydrant Outlets
		1-inch	1-1/2 inch	2-inch	
		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.

Bid Number 24-076

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 (Inch)	100% Chlorine Gas* (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 (Inch)	1% Sodium Hypochlorite Solution* (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 **Bid Number 24-076**

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.16 – BORE AND JACK WATER MAIN INSTALLATION

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. 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.

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.

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.

SP R.7 – COMBINATION P.C.C. CURB AND GUTTER

This work shall consist of the removal of existing and the installation of new combination P.C.C. (Portland cement concrete) 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 P.C.C. 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 P.C.C. curb and gutter shall include full depth saw cuts.

Construction of combination P.C.C. 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, P.C.C. (Portland cement concrete) 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 P.C.C. 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 (FT) for COMBINATION P.C.C. CURB & GUTTER 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 – P.C.C. SIDEWALK REMOVAL AND REPLACEMENT, 5" AND DETECTABLE WARNINGS

This work shall consist of removing the existing sidewalk and placing a Portland Cement Concrete 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 (FT) 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 AND 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.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.

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.

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.

CITY OF AURORA GENERAL SPECIFICATIONS
SECTION 1 - DEFINITION OF TERMS

1.1 ADVERTISEMENT

The word Advertisement shall mean and refer to the official notice as published in the Aurora Beacon News, a daily newspaper published in the City of Aurora, Illinois, 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.

SECTION 2 AWARD AND EXECUTION OF CONTRACT

2.1 PUBLIC OPENING OF PROPOSALS

Proposals will be opened and read publicly at the time and place specified in the advertisement, or as soon thereafter as the business of the City Clerk permits. Bidders, their authorized agents, and other interested parties are invited to be present.

2.2 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.

2.3 BONDS AND INSURANCE

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

2.4 SUBLETTING OR ASSIGNMENT OF CONTRACT

The Contractor shall not sublet, sell, or assign all, or any portion of the contract, or of the work provided for therein, without the written consent and authorization of the City, and in no case shall such consent relieve said Contractor from either, any, or all of the obligations herein entered into, or change the terms of the obligations hereof.

2.5 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 fifteen (15) 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.

2.6 VENUE FOR LEGAL ACTION

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

2.7 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.

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.

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.

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, it 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.

SECTION 6 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

6.1 COMPLIANCE WITH LAWS AND REGULATIONS

The Contractor 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 hereto; 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 claim or liability arising from or based on the violation of any such law, ordinance, regulation, requirement, order or decree, whether by himself or his employees.

6.2 PERMITS AND LICENSES

The Contractor shall take out and procure at his own expense all permits and licenses required by Federal, State or local public authorities, and he shall, without extra compensation from the City, pay all fees and charges and give notices required incident to the due and lawful prosecution of the work in relation thereto.

6.3 PATENTED DEVICES, MATERIALS, AND PROCESSES

It is mutually understood and agreed that without exception contract prices are to include all royalties and costs arising in the work. It is the intent that whenever the Contractor is required or desires to use any design, device, material, or process covered by letters of patent or copyright, the right of such use shall be provided for by suitable legal agreement with the patent owner. The Contractor and Surety in all cases shall indemnify and save harmless the City from any and all claims for infringement by reason of the use of any such patent design, device, materials, or process, to be performed or used under the contract, and shall indemnify and save harmless the said City for any costs, expenses, attorney's fees, and damages which it may be obligated to pay, by reason of any such infringement at any time during the prosecution or after the completion of the work.

6.4 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.

6.5 USE OF EXPLOSIVES

The use of explosives shall be prohibited.

6.6 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.

6.7 RESPONSIBILITY FOR DAMAGE CLAIMS

The Contractor agrees to indemnify and save harmless the City of Aurora, their agents, and employees 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	
<u>Each Occurrence</u>	<u>Each Occurrence</u>	<u>Aggregate</u>
\$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.

6.8 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.

6.9 LOCAL BIDDER PREFERENCE

O18-070, amended by 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.

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 GUARANTEE AND MAINTENANCE OF WORK

The Contractor 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 Contractor 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 ensure 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.

7.4 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.



Illinois Department of Transportation

Local Agency Proposal Bid Bond

RETURN WITH BID

Route Various
County Kane
Local Agency City of Aurora
Section _____

PAPER BID BOND

WE _____ as PRINCIPAL,

and _____ as SURETY,

are held jointly, severally and firmly bound unto the above Local Agency (hereafter referred to as "LA") in the penal sum of 5% of the total bid price, or for the amount specified in the proposal documents in effect on the date of invitation for bids whichever is the lesser sum. We bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly pay to the LA this sum under the conditions of this instrument.

WHEREAS THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the said PRINCIPAL is submitting a written proposal to the LA acting through its awarding authority for the construction of the work designated as the above section.

THEREFORE if the proposal is accepted and a contract awarded to the PRINCIPAL by the LA for the above designated section and the PRINCIPAL shall within fifteen (15) days after award enter into a formal contract, furnish surety guaranteeing the faithful performance of the work, and furnish evidence of the required insurance coverage, all as provided in the "Standard Specifications for Road and Bridge Construction" and applicable Supplemental Specifications, then this obligation shall become void; otherwise it shall remain in full force and effect.

IN THE EVENT the LA determines the PRINCIPAL has failed to enter into a formal contract in compliance with any requirements set forth in the preceding paragraph, then the LA acting through its awarding authority shall immediately be entitled to recover the full penal sum set out above, together with all court costs, all attorney fees, and any other expense of recovery.

IN TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this _____ day of _____

Principal

(Company Name)

(Company Name)

By: _____
(Signature and Title)

By: _____
(Signature and Title)

(If PRINCIPLE is a joint venture of two or more contractors, the company names, and authorized signatures of each contractor must be affixed.)

Surety

By: _____
(Signature of Attorney-in-Fact)

(Name of Surety)

STATE OF ILLINOIS,

COUNTY OF _____

I, _____, a Notary Public in and for said county,
do hereby certify that _____

(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instruments as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of _____

My commission expires _____
(Notary Public)

ELECTRONIC BID BOND

☐ **Electronic bid bond is allowed (box must be checked by LA if electronic bid bond is allowed)**

The Principal may submit an electronic bid bond, in lieu of completing the above section of the Proposal Bid Bond Form. By providing an electronic bid bond ID code and signing below, the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the LA under the conditions of the bid bond as shown above. (If PRINCIPAL is a joint venture of two or more contractors, an electronic bid bond ID code, company/Bidder name title and date must be affixed for each contractor in the venture.)

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Electronic Bid Bond ID Code

(Company/Bidder Name)

(Signature and Title)

Date

Bid Number 24-076

PROPOSAL

TO: THE HONORABLE MAYOR AND CITY COUNCIL
CITY OF AURORA
44 EAST DOWNER PLACE
AURORA, ILLINOIS 60507

1. Proposal of _____
for the improvement known as the **Keating Drive Water Main Improvements, Bid 24-076.**
2. The Plans and specifications for the proposed improvements are those prepared by the City of Aurora Engineering Division and approved by the City Council of Aurora, Illinois.
3. In submitting this proposal, the undersigned declares that the only persons or parties interested in the proposal as principals are those named herein, and that the proposal is made without collusion with any person, firm, or corporation.
4. The undersigned further declares that he has carefully examined the proposals, Plans, specifications, form of contract and contract bond, and special provisions, if any, and that he has inspected in detail the site of the proposed work and that he has familiarized himself with all of the local conditions affecting the contract and detailed requirements of construction, and understands that in making this proposal he waives all right to plead any misunderstanding regarding the same.
5. The undersigned further understands and agrees that if the proposal is accepted, he is to furnish and provide all necessary machinery, tools, apparatus and other means of construction and to do all of the work and to furnish all of the materials and labor required.
6. The undersigned declares that he understands that the quantities mentioned are approximate only, and that they are subject to increase or decrease; that he will take in full payment therefore the amount of the summation of the actual quantities, as finally determined, and multiplied by the unit prices shown in the schedule of prices contained herein.
7. The undersigned agrees that the unit prices submitted herewith are for the purpose of obtaining a gross sum and for use in computing the value of extras and deductions; that if there is a discrepancy between the gross sum bid and that resulting from the summation of the quantities multiplied by their respective unit prices, the latter shall apply.
8. The undersigned agrees that if the City decides to extend or shorten the improvement, or otherwise alter it by extras or deductions, including the elimination of any one or more of the items, as provided in the specifications, he will perform the work as altered, increased or decreased, at the contract unit prices without claim for profits lost as a result of any work or items eliminated by the City of Aurora.
9. The undersigned agrees that the Engineer may, at any time during the progress of the work covered by this contract, order other work or materials incidental thereto, and that all such work and materials as do not appear in the proposal or contract as a specific item accompanied by a unit price, and which are not included under the bid price for other items in this contract, shall be performed as extra work, and that he will accept as full compensation therefore the actual cost plus ten percent (10%), the actual cost to be determined as provided for in the specifications.
10. The undersigned further agrees to execute a contract, 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 receiving the notice of award of the contract.

11. The undersigned further agrees to begin work not later than **ten (10)** calendar days after the execution or by the date stated within the contract documents 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.
12. The undersigned agrees to complete the work within the time stipulated in the Special Provisions.
13. All work shall be completed to the satisfaction of the Engineer by the above dates unless the Engineer in accordance with the specifications grants additional time. In case of failure to complete the work within the time named herein, or within such extra time as may have been allowed by extensions, the undersigned agrees that the City shall withhold from such sums as may be due him under the terms of the contract the liquidated damages as set forth in the Standard Specifications, which costs shall be considered and treated not as a penalty, but as damages due the Municipality from the undersigned by reason of inconvenience to the public, added cost of engineering and supervision, and other items which have caused an expenditure of public funds resulting from the failure of the undersigned to complete the work within the time specified in the contract.
14. If this proposal is accepted and the undersigned shall fail to execute a contract and contract bond as required herein, it is hereby agreed that the amount of the check or draft or bidder's bond substituted in lieu thereof shall become the property of the City and shall be considered not as a penalty but as payment of liquidated damages due to delay and other causes suffered by the City because of the failure to execute said contract and contract bond, otherwise said check or draft or bidder's bond substituted in lieu thereof shall be returned to the undersigned.
15. Accompanying this proposal is either a **5% Bid Bond** or a proposal guaranty check, complying with the specifications, made payable to the City Treasurer of the City of Aurora. The amount of the check is \$

16. The undersigned submits herewith his schedule of prices covering the work to be performed under this contract, he understands that he must show in the schedule the unit prices for which he proposes to perform each item of work, that the extensions must be made by him, and that if not so done, his proposal may be rejected as irregular or non-responsive.
17. The undersigned agrees to conform to Section 100 of the Standard Specifications and to Article 107.27 of that section indemnifying and saving harmless the City of Aurora and its officers, agents, and employees. The Contractor shall provide insurance with limits as stated in the Article 6.7 of the *City of Aurora - General Specifications*.
18. The City of Aurora reserves the right to reject any or all of the bids and to waive any and all irregularities and technicalities. The City of Aurora shall either award the project or reject the bids within Sixty (60) calendar days after the bid opening. This time frame may be extended upon mutual agreement of the City and the Bidder.
19. The undersigned of this proposal agrees that he or she has examined all sections of this Proposal, Specifications, and Bidding Documents and hereby understands and accepts the provisions for access, or the lack of access, to the construction site and shall claim no compensation other than the prices as bid for this condition of accessibility.
20. The undersigned further agrees that the unit prices submitted herewith are for the complete item constructed, including all labor, equipment, material and other necessary incidental work.
21. The undersigned agrees to indemnifying and saving harmless the City of Aurora, its officers, agents, employees, and servants by filing with the City, prior to the execution of the contract, copies of completed Certificates of Insurance satisfactory to the City, with the City of Aurora named as co-insured; automobile

liability insurance covering owned, non-owned, and hired vehicles with limits of liability as stated in the City of Aurora - General Specifications Article 6.7.

22. No bid shall be considered unless the party offering it shall furnish evidence satisfactory to the City of Aurora that he has been previously engaged in the quality construction of improvements of the same character as the one herein specified, and that he has the necessary facilities, equipment, experience, and ability and pecuniary resources to fulfill the conditions of the contract
23. No contract will be awarded to any bidder where that bidder or any principal or supervisory personnel of the bidder has been personally involved with another business that has been delinquent or unfaithful in any former contract with the City or where that bidder or any supervisory personnel of the bidder has been personally involved with another business that is a defaulter as surety or otherwise upon obligation to the City.
24. The Illinois Freedom of Information Act (FOIA) has been amended and effective January 1, 2010, adds a new provision to Section 7 of the Act which applies to public records in the possession of a party with whom the City of Aurora has contracted. The City of Aurora will have only a very short period of time from receipt of a FOIA request to comply with the request, and there is a significant amount of work required to process a request including collating and reviewing the information. The undersigned acknowledges the requirements of 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.
25. The undersigned submits herewith this **Schedule of Prices** covering the work to be performed under this contract:



**Schedule of Prices
Keating Drive
Water Main Improvements
Bid 24-076**

Route	_____ Keating Drive
County	_____ Dupage & Will
Local Agency	_____ City of Aurora

RETURN WITH BID

(For complete information covering these items, see plans and specifications)

<u>NO.</u>	<u>ITEM</u>	<u>UNIT</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>AMOUNT</u>
1	Select Granular Trench Backfill	CY	650		
2	Unsuitable Soil Removal and Replacement	CY	30		
3	Exploratory Excavation	LF	20		
4	Restrained Joint Gasket, 16"	EA	4		
5	Zinc Coated DIP Water Main, CI 52, 16" w/V-bio Polywrap	LF	900		
6	Bore and Jack Steel Casing, 30"Diameter & .406" Thickness	LF	100		
7	16" MJ Gate Valve in 60" Vault	EA	2		
8	Additional Fittings	LB	1,000		
9	Fire Hydrant Assembly	EA	1		
10	Connect to Existing 12" WM (Middlebury and Keating)	EA	1		
11	Connect to Existing 12" WM (Normantown and Keating)	EA	1		
12	Storm Sewer Remove and Replacement - 8" DIP	LF	10		
13	Storm Sewer Remove and Replacement - 12" PVC C-900	LF	20		
14	Class D Patching, 5" Binder & 1.5" Surface	SY	900		
15	Combination PCC Curb and Gutter Removal and Replacement	LF	10		
16	Seeding - Aurora Mix	SY	50		
17	Items Ordered by Engineer	Allowance	1	\$60,000.00	\$60,000.00
18	Traffic Control and Protection	LS	1		
19	Inlet Protection	EA	4		
20	Silt Fence	LF	100		
21	Temporary Staging	TON	60		
22	Non-Special Waste Disposal	TON	60		
23	Special Waste Disposal	TON	20		
24	Track Monitoring	CAL DAY	60		
Bidder's Total Proposal for Making Entire Improvements =					



(If an individual)

Signatures

Signature of Bidder _____

Business Address _____

(If a partnership)

Firm Name _____

Signed by _____

Business Address _____

Insert
Names and
Addresses of
All Partners

(If a corporation)

Corporate Name _____

Signed By _____

President

Business Address _____

President _____

Secretary _____

Treasurer _____

Attest: _____

Secretary

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. 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. I/We will submit with our bid, 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.
- ☐ Contractor shall check the box indicating that a copy of applicable program certification is attached.
- H. I/We have obtained IDOT prequalification as described in Check Sheet LRS6 in the "Supplemental Specifications and Recurring Special Provisions" in the categories appropriate for the type of work proposed for this project.
- ☐ Contractor shall check the box indicating that a copy of the IDOT prequalification certification for the appropriate categories is attached.
- I. I/We will abide by all other Federal, State and local codes, rules, regulations, ordinances and statutes.
- J. I/We will abide by the "Illinois Preference Act" which requires contractors to use at least 90% Illinois laborers on all public works projects that receive State funds or funds administered by the State during a period of "excessive unemployment" (Employment of Illinois Workers on Public Works Act, 30 ILCS 570/).

COMPANY NAME _____

ADDRESS _____

CITY/STATE/ZIP CODE _____

NAME OF CORPORATE/COMPANY OFFICIAL _____

PLEASE TYPE OR PRINT CLEARLY

TITLE _____

AUTHORIZED OFFICIAL SIGNATURE _____

DATE _____

Subscribed and Sworn to

TELEPHONE (____) _____

Before me this ____ day

FAX No. (____) _____

of _____, 20____

E-MAIL ADDRESS _____

Notary Public

Bid Number 24-076

Apprenticeship or Training Program Certification

Return with Bid

All contractors are required to complete the following certification:

- ☐ For this contract proposal or for all groups in this deliver and install proposal.
- ☐ For the following deliver and install groups in this material proposal:

The City of Aurora policy, adopted in accordance with the provisions of the Illinois Highway Code, requires this contract to be awarded to the lowest responsive and responsible bidder. In addition to all other responsibility factors, this contract or deliver and install proposal requires all bidders to disclose participation in apprenticeship or training programs that are approved by and registered with the United States Department of Labor's Bureau of Apprenticeship and Training, and applicable to the work of the above indicated proposals or groups. Therefore, all bidders are required to complete the following certification:

- I. Except as provided in paragraph III below, the undersigned bidder certifies that it is a participant, either as an individual or as part of a group program, in an approved apprenticeship or training program applicable to each type of work or craft that the bidder will perform with its own employees.
- II. The undersigned bidder, by inclusion in the list in the space below, certifies the official name of each program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's employees. The list shall also indicate any type of work or craft job category for which there is no applicable apprenticeship or training program available.

- III. Except for any work identified above, any bidder that shall perform all or part of the work of the contract or deliver and install proposal solely by individual owners, partners or members and not by employees to whom the payment of prevailing rates of wages would be required, check the following box, and identify the owner/operator workforce and positions of ownership. ☐

The requirements of this certification and disclosure are a material part of the contract. The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project is accounted for and listed. **The City of Aurora requires a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors be included with the bid in order to qualify to bid on the project.**

Bidder: _____

By: _____
(Signature)

Address: _____

Title: _____

STATE OF ILLINOIS) ss.
)
County of Kane)

BIDDER'S TAX CERTIFICATION

(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 despondent 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.

DATED this _____ day of _____, 20____.

By _____
(Signature of Bidder's Executing Officer)

(Print name of Bidder's Executing Officer)

(Title)

ATTEST/WITNESS:

By _____

Title _____

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

Notary Public

(SEAL)

Bid Number 24-076



City of Aurora, IL - Local Vendor Preference Application

The business identified below is requesting to be placed on the City of Aurora, Illinois Local Vendor Preference list, in accordance with ordinance O20-029 approved April 28, 2020.

- 1) Date Submitted: _____
- 2) Name of Business: _____
- 3) Address of Local Office: _____
- 4) City, State, Zip: _____
- 5) Company's Web Address: _____
- 6) Phone: _____ Fax: _____
- 7) County your Local Business is Located In: _____

Submitted By (Signature): _____

Print Name and Title: _____

Email Address: _____

Sec. 2-410.-Prequalification; local bidder.

- (a) If an interested business would like to prequalify as a "local business", such a business shall complete and submit the prequalification application along with supporting documentation, as listed below, and the applicable fee as set by the City Council, to the Finance Department:
 - a. Evidence that the business has established and maintained a physical presence in the City of Aurora, by virtue of the ownership or lease of all or a portion of a building for a period of not less than twelve (12) consecutive months prior to the submission of the prequalification application; and
 - b. Evidence demonstrating that the business is legally authorized to conduct business within the State of Illinois and the City of Aurora, and has a business registered to operate in the City if required; and
 - c. Evidence that the business is not a debtor to the City of Aurora. For purposes of this subparagraph, a debtor is defined as having outstanding fees, water bills, sales tax or restaurant/bar tax payments that are thirty (30) days or more past due, or has outstanding weed or nuisance abatements or liens, has failure to comply tickets or parking tickets that are not in dispute as to their validity and are not being challenged in court or other administrative processes.

Back up documentation for (a) a. and (a) b. must accompany this submittal or application will be rejected.

Please note for (a) c. above the City of Aurora will verify internally that your company does not have any outstanding fees. Your company should make sure that to the best of its knowledge all bills are current.

Return completed application, with all required backup documentation to:
City of Aurora, Attn: Purchasing Division, 44 E. Downer Place, Aurora, IL 60507
Or email to: PurchasingDL@aurora.il.us

Do not write below this line: For City of Aurora use ONLY

- (a) a.
- (a) b.
- (a) c.

Date: _____

Approved: _____
Letter Sent: _____

Denied: _____
Initials: _____

APPENDIX A



INSURANCE REQUIREMENTS

1. By Licensee

Before commencing work, and until this Agreement shall be terminated or the FACILITY shall be removed (whichever date is later), the LICENSEE shall provide and maintain the following insurance in form and amount with companies satisfactory to and as approved by the RAILROAD.

- a. Statutory Workers Compensation and Employer's Liability insurance.
- b. Automobile Liability in an amount not less than \$1,000,000 dollars combined single limit.
- c. Comprehensive General Liability (Occurrence Form) in an amount not less than \$5,000,000 dollars combined single limit, with an aggregate of at least \$10,000,000 dollars. The Policy must name the appropriate RAILROAD as an Additional Insured and must not contain any exclusions related to:
 1. Doing business on, near, or adjacent to railroad facilities.
 2. Loss or damage resulting from surface, subsurface pollution contamination or seepage, or handling, treatment, disposal, or dumping of waste materials or substances.

Before commencing work, the LICENSEE shall deliver to the RAILROAD a certificate of insurance evidencing the foregoing coverage and upon request the LICENSEE shall deliver a certified, true and complete copy of the policy or policies. The policies shall provide for not less than ten (10) days prior written notice to the RAILROAD of cancellation of or any material change in, the policies; and shall contain the waiver of right of subrogation.

It is understood and agreed that the foregoing insurance coverage is not intended to, and shall not, relieve the LICENSEE from or serve to limit LICENSEE's liability under the indemnity provisions of any applicable agreement.

It is further understood and agreed that, so long as the Agreement shall remain in force or the FACILITY shall have been removed (whichever shall be later), the RAILROAD shall have the right, from time to time, to revise the amount or form of insurance coverage provided as circumstances or changing economic conditions may require. The RAILROAD shall give the LICENSEE written notice of any such requested change at least thirty (30) days prior to the date of expiration of the then existing policy or policies; and the LICENSEE agrees to, and shall, thereupon provide the RAILROAD with such revised policy or policies thereof.



INSURANCE REQUIREMENTS

2. By the Licensee's Contractor

If a contractor is to be employed by the Licensee for the installation of the FACILITY, then, before commencing work, the contractor shall provide and maintain the following insurance, in form and amount and with companies satisfactory to, and as approved by, the RAILROAD.

- a. Statutory Workers' Compensation and Employer's Liability insurance.
- b. Automobile Liability in an amount not less than \$1,000,000 dollars combined single limit.
- c. An Occurrence Form Railroad Protective Policy with limits of not less than \$5,000,000 dollars per occurrence for Bodily Injury Liability, Property Damage Liability and Physical Damage to Property with \$10,000,000 dollars aggregate for the term of the policy with respect of Bodily Injury Liability, Property Damage Liability and Physical Damage to Property. The policy must name the appropriate RAILROAD as the insured, and shall provide for not less than ten (10) days prior written notice to the RAILROAD'S as cancellation of, or any material change, in the policy.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: PHONE (A/C, No, Ext): _____ FAX (A/C, No): _____ E-MAIL ADDRESS: _____	
INSURED	INSURER(S) AFFORDING COVERAGE	
	INSURER A : _____	
	INSURER B : _____	
	INSURER C : _____	
	INSURER D : _____	
	INSURER E : _____	
		NAIC #
		INSURER F : _____

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER: 1

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADD L	SUB R	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
X	GENERAL LIABILITY	Y	Y		EFF DATE	EXP DATE	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) \$ \$5,000,000
	COMMERCIAL GENERAL LIABILITY						
	CLAIMS-MADE X OCCUR						MED EXP (Any one person) \$
							PERSONAL & ADV INJURY \$
							GENERAL AGGREGATE \$10,000,000
							PRODUCTS - COMP/OP AGG \$
							\$
X	AUTOMOBILE LIABILITY	Y	Y		EFF DATE	EXP DATE	COMBINED SINGLE \$1,000,000
	ANY AUTO ALL OWNED AUTO						BODILY INJURY (Per person) \$
	SCHEDULED AUTOS NON-OWNED AUTOS						BODILY INJURY (Per accident) \$
							PROPERTY DAMAGE (Per accident) \$
							\$
X	UMBRELLA LIAB EXCESS LIAB	X	OCCUR		EFF DATE	EXP DATE	EACH OCCURRENCE \$5,000,000
	CLAIMS-MADE	Y	Y				AGGREGATE \$10,000,000
	DED RETENTION \$						\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	Y	Y		EFF DATE	EXP DATE	OTHER MIN STATUTORY
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y/N					
	If yes, describe under DESCRIPTION OF OPERATIONS below						

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Certificate holder is an additional insured under all policies on this certificate including Commercial General Liability and Umbrella Liability.

A Waiver of Subrogation applies in favor of the Certificate Holder for all policies on this certificate including Commercial General Liability and Umbrella Liability.

50 foot railroad exclusion is removed through CG 2417 10 01

CERTIFICATE HOLDER

CANCELLATION

(Appropriate Railroad Company Subsidiary for work location)

Example: Wisconsin Central Ltd. and its Parents

Attn: CN Flagging - US
17641 South Ashland Avenue
Homewood, IL 60430

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
of

© 1988-2010 ACORD CORPORATION. All rights reserved.

ACORD 25 (2010/05)

The ACORD name and logo are registered marks of ACORD

REQUIREMENTS TO PROVIDE FLAGGING PROTECTION AND CABLE LOCATION FOR PROJECTS ON OR IN THE VICINITY OF CN PROPERTY

**(Hereinafter called "Railroad")
(Revised: Effective December 4th, 2018)**

NOTE: Flagging and/or Cable Locate fees may apply

A utility or contractor shall not commence, or carry on, any work for installation, maintenance, repair, changing or renewal of any FACILITY, under, over, on, or near RAILROAD property at any location without giving notice to the RAILROAD authorized representative at the RAILROAD's office located at Homewood, IL. If in the opinion of the RAILROAD the presence of an authorized representative of the RAILROAD is required to supervise the same, the RAILROAD shall render bills to the utility or contractor for all expenses incurred by it for such supervision. This includes all labor costs for flagmen or cable locate supplied by the RAILROAD to protect RAILROAD operation, and for the full cost of furnishing, installation and later removal of any temporary supports for said tracks, as the RAILROAD's Chief Engineer's Office may deem necessary.

A flagman is required any time any work is performed (i) under or across any Railroad track, regardless of whether said work involves a physical presence on the surface of the Railroad property; (ii) on the surface of the Railroad property within twenty-five (25) feet horizontally of the centerline of any railroad track; or (iii) on, near, or over Railroad property if the work may potentially encroach (intentionally or unintentionally) within twenty-five (25) feet from the centerline of any railroad track. Causes of potential encroachment include but are not limited to equipment that has the potential to swing, pivot, extend or mechanically fail. Potential encroachment must also account for a distance of one-half the length of the largest load that any equipment may lift. Additionally, Railroad reserves the right to require a flagman for work on Railroad property not meeting the above criteria when there are other conditions or considerations that would indicate the need for a flagman to safeguard Railroad's operations, property and safety of any person.

Cable Location

A cable location of RAILROAD owned facilities may be required prior to the start of any work based on the RAILROAD's review of the proposed project. The purpose of cable location is to identify and protect Signal & Communication cables that have been installed to provide power, signal control, and wayside communications. These cables are vital to a safe and reliable railway operation. The cable locate will be performed by a qualified RAILROAD employee.

The cost for a cable location is \$350.00, and must be prepaid by check before RAILROAD will undertake the cable locate work.

Outside contractors are prohibited from driving on, along, or across any track that does not have a CN installed crossing. They may utilize an existing public crossing. The practice of allowing rubber tired equipment to operate over track with no crossing is strictly prohibited. Exceptions to this rule will require the express approval from CN Engineering.

Prior to any project being started, the RAILROAD requires a "Request for Flagging Services and Cable Location" form to be completed and submitted, including check for prepayment based on the number of days and hours flagging protection will be required and also prepayment for cable location as necessary. Separate checks must be issued for flagging protection and cable location. You must have an agreement with a CN railroad subsidiary, such as a Right of Entry, Permit, License, or Formal Agreement in addition to any necessary flagging before you may enter CN property.

Request for Flagging Services and Cable Location U.S.

Requests and inquiries must be directed to:

Flagging-US

17641 South Ashland Ave.

Homewood, IL 60430

Flagging_US@CN.CA

Is this a continuation of an existing project? Yes ☐ No ☐

If YES, please provide your Service Order # _____

All blanks below must be completely filled in before any flagman request will be honored.

Work Authorization:

Right of Entry/License/Permit No.: _____ Dated: _____ Railroad: _____

Does your Right of Entry/License/Permit require a Railroad Cable Locate? Yes ☐ No ☐

You must have an agreement with a CN railroad subsidiary, such as a Right of Entry, Permit, License or Formal Agreement in addition to any necessary flagging before you may enter CN property.

Project Information:

Please submit a detailed map of the location where protection is being requested.

Street Location/Intersection _____ City/State _____

Railroad Milepost _____ Railroad Subdivision _____

Description of work being performed: _____

Location for flagman to report: _____

Name of Site Contact: _____ Site Contact Phone: (____) ____ - ____ Alt: (____) ____ - ____

Requested Dates/Times:

Dates requested are subject to flagman availability. Minimum 5 business days advance notice required.

Requested Dates for Flagging Protection: _____, _____, _____, _____, _____, _____,

_____, _____, _____, _____, _____, _____, _____

Project Starting time: _____ Anticipated Ending Time: _____ Anticipated # Hours per Day: _____

*Flagmen start and end time may vary based on type of protection required.

Billing Information:

All blanks spaces must be filled out

Company Name: _____ Requestor Name: _____

Billing Address: _____

City: _____ State: _____ Zip: _____

Company Phone: _____ Company Fax: _____ E-Mail: _____

CN required online training must be completed before Flagman Protection will be scheduled.

Prepayment must be received before Flagging Protection will be scheduled. There is an 8 hour minimum per day. The base rate per day for Flagman Protection is \$1,300.00 for 10 hours; this includes 2 overtime hours for flagman to set up/take down protection if needed.

Additional overtime hours must be prepaid at the rate of \$150.00 per hour. Weekends and Holidays must be prepaid at the overtime rate with a \$1,500.00 / 10 hour minimum. Any prepayment for additional days or overtime not used can be refunded.

Railroad Cable Location must be prepaid, the cost is \$350.00 per locate.

Separate Checks must be issued for Flagging Protection and Cable Location. Checks should be made payable to the railroad subsidiary listed on your Right of Entry/Permit/License or, Formal Agreement.

If additional days of protection are required they must be prepaid in advance.

Rates Effective January 1st 2017.

**THIS COMPLETED FORM MUST BE SENT WITH A MAP, PREPAYMENT CHECK(S), AND PROOF OF INSURANCE TO:
US-FLAGGING / 17641 SOUTH ASHLAND AVE. HOMEWOOD, IL 60430**

I agree to pay for flagging services as requested: _____

(SIGN AND PRINT NAME)



November 3, 2023

Attention: City of Aurora

RE: **Letter of No Objection**-Crossing of ONEOK North System, L.L.C.

Location: South Half (S/2) Section 32, Township 38N, Range 9E, City of Aurora, Illinois

Dear Jason Bauer:

ONEOK North System, L.L.C. ("ONEOK") grants conditional consent to the City of Aurora ("The City") for a period of one hundred twenty (120) days beginning at the date of commencement of construction to construct a sixteen inch (16") water line ("City Facility") over, under or perpendicular to ONEOK's pipeline(s) ("Pipeline") in DuPage Co., Illinois as shown on the drawing attached hereto as **Exhibit A**, dated subject to the following conditions:

1. Except as otherwise specifically permitted hereunder, The City agrees not to build, create or construct any permanent obstruction, engineering works or other structures over ONEOK's Pipeline, or easement area ("Easement Area"), nor permit same to be done by others directly on behalf of The City. The phrase "engineering works or other structures" shall include, but not be limited to, pipelines, electric lines, water lines, sewer lines, drainage lines, utilities, buildings, sheds, homes, fences, parking areas (shelled or paved), signs, trees, bushes, and sidewalks. The City shall comply with the requirements attached as **Exhibit C**, subject to the Special Provisions set forth in **Exhibit B**. To the extent that any of the Special Provisions set forth in this **Exhibit B** conflict with the General Construction Requirements set forth in **Exhibit C**, the Special Provisions set forth in **Exhibit B** shall have priority.
2. Where the City Facility crosses over or under ONEOK's Easement Area (the "Encroachment"), said the City Facility will be constructed in compliance with standards and specifications submitted by The City to ONEOK for written approval, which approval must be obtained prior to construction. **THE CITY UNDERSTANDS AND AGREES THAT ANY DEVIATIONS FROM SAID STANDARDS OR SPECIFICATIONS, OR NONCOMPLIANCE WITH ANY REQUIREMENTS CONTAINED IN THIS LETTER OF NO OBJECTION, WILL PERMIT ONEOK North System, L.L.C., AT ITS SOLE OPTION, TO NOTIFY THE CITY THAT THE CITY'S RIGHTS UNDER THIS LETTER OF NO OBJECTION HAVE BEEN TERMINATED.**
3. The City Facility will cross the Easement Area at as close to a ninety (90) degree angle as reasonably possible (and in no event at less than a forty-five (45) degree angle) above as

shown in the attached drawing. In the case the City Facility is a pipeline laid by open cutting, a minimum clearance of one and one-half (1.5) times the diameter of the largest pipe, but with at least two (2) feet of separation from ONEOK's Pipeline is required, and both ONEOK and The City shall install a cathodic protection test station at the Crossing. If the City Facility is a pipeline laid using a bore technique, the minimum clearance shall be four (4) feet under the Pipeline from the bottom of Pipeline, and a viewing window shall be utilized. If supplying a viewing window is not possible, ONEOK shall be notified prior to bore commencement and the parties shall agree upon a reasonable alternative thereto. Under no circumstances shall dirt or other debris be piled over ONEOK's Pipeline or within the Easement Area. Anytime The City is crossing and/or working over the Pipeline, The City shall lay laminated mats, where required by ONEOK. Equipment to be used for excavation shall be inspected and approved by ONEOK personnel and/or a ONEOK contract inspector (collectively, "ONEOK Representative") prior to commencement of excavation activities.

4. All exposed portions of the Pipeline will be visually inspected for damage by a ONEOK Representative and any span of exposed Pipeline longer than twenty (20) feet shall be supported. **A ONEOK Representative must be present during excavation, ongoing activities within the EASEMENT AREA, and the back filling process of the site.**
5. The City agrees that where the City Facility crosses the Easement Area, ONEOK **will not be liable** for repair to the City Facility, or any loss of service which may occur, due to any repair to, maintenance of, any other activity concerning ONEOK's Pipeline or Easement Area or related facilities except to the extent such damage or loss is caused by the gross negligence or willful misconduct of ONEOK.
6. ONEOK requires that, prior to commencement of The City's construction activities the appropriate "One Call" notices shall be given and that ONEOK shall additionally be directly notified by The City a minimum of forty-eight (48) hours in advance. Each notice shall identify the location and Pipeline to be crossed and afford a ONEOK Representative the opportunity to be on site to inspect said activities. **The ONEOK Representative who shall be notified is Matthew Orтели (or such other individual as ONEOK may in the future designate) at phone number (851) 378-1962, or at such other phone number as ONEOK may in the future designate.**

TO THE EXTENT PERMITTED BY STATE LAW, THE CITY COVENANTS AND AGREES TO INDEMNIFY, DEFEND AND FOREVER HOLD HARMLESS ONEOK, ITS PARTNERS, MEMBERS, OFFICERS, DIRECTORS, AFFILIATES, AGENTS, EMPLOYEES, REPRESENTATIVES, SUCCESSORS AND ASSIGNS (COLLECTIVELY, "ONEOK NORTH SYSTEM, L.L.C. INDEMNITEES"), FROM AND AGAINST EACH AND EVERY CLAIM, JUDGMENT, SUIT, COST (INCLUDING ALL REASONABLE ATTORNEYS' FEES, COURT COSTS AND COSTS OF DEFENSE), DEMAND, AND CAUSE OF ACTION IN ANY WAY ARISING OUT OF ANY ACTIVITY RELATING TO THE CONSTRUCTION OR EXISTENCE OF THE CITY FACILITY FOR WHICH THIS LETTER OF NO OBJECTION IS GRANTED AND/OR FROM ANY BREACH BY THE CITY OF

ANY PROVISION OF THIS LETTER OF NO OBJECTION INCLUDING BUT NOT LIMITED TO ANY PERSONAL INJURY (INCLUDING DEATH), PROPERTY DAMAGE AND/OR OTHER DAMAGES, EXCEPT TO THE EXTENT SUCH CLAIM, JUDGMENT, SUIT, COST, DEMAND OR CAUSE OF ACTION ARISES OUT OF THE NEGLIGENCE OR WILLFUL MISCONDUCT OF A ONEOK HYDROCARBON, L.P. INDEMNITEE.

7. The City agrees that ONEOK's Pipeline are or may be catholically protected and that The City will not operate and maintain its The City Facility in any manner that would interfere in any way with the cathodic protection of ONEOK's Pipeline. The City also agrees that ONEOK will have no liability to The City or any third party as a result of any damages or other adverse effects which ONEOK cathodic protection may have on the City's Facility or third-party properties now or in the future. Cathodic test leads stations must be installed on The City Facility where required by ONEOK. Additionally, The City shall reimburse ONEOK for the reasonable costs of any close interval surveys or similar activities that ONEOK may deem (now or in the future) to be necessary due to the presence of the City Facility. The City, in carrying out its work as described above, shall consult ONEOK's Representative. Additionally, The City shall (in the course of its excavating) cooperate with ONEOK so as to enable ONEOK to place any protective device on ONEOK's Pipeline that ONEOK may deem necessary.
8. Prior to commencing any work relevant hereto, The City agrees to obtain all licenses, permits and approvals required by all third parties, including governmental bodies and that all work shall be conducted in accordance with all applicable laws, rules, regulations and orders of all governmental bodies having or claiming jurisdiction.
9. The City agrees that ONEOK's execution of this Letter of No Objection does not, and will not be deemed to grant approval, as to any matter on behalf of any person or entity other than ONEOK. Without limiting the foregoing, The City expressly recognizes that The City is solely responsible for obtaining any necessary easements from the fee owner(s) of the relevant real property.
10. Nothing contained herein shall be deemed to constitute ONEOK's consent to any activities of The City other than those necessary to accomplish the work herein described.
11. By acceptance of this Letter of No Objection, The City agrees to all of the terms and conditions contained herein. The City's construction of the City Facility subject hereto shall be deemed for all purposes to constitute The City's acceptance of this Letter of No Objection. Any waiver of any specific portion of the above must be in writing and in no way shall waive any other part of this Letter of No Objection.

November 3, 2023

Sincerely,

ONEOK

By: ONEOK North System, L.L.C.

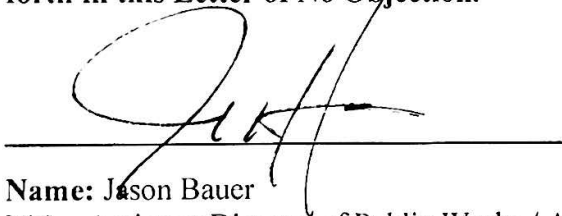


Name: Matt Gillett

Title: Vice President, Natural Gas Liquids – Pipelines and Terminals



City of Aurora, Illinois hereby acknowledges and accepts the terms and conditions set forth in this Letter of No Objection.



Name: Jason Bauer

Title: Assistant Director of Public Works / Assistant City Engineer

November 3, 2023

EXHIBIT A THE CITY FACILITY

- ONEOK North System, L.L.C. (035)
PL 106 West Wayne Mag Jct to Lemont 8"
Line No. 11106, Tr. No. DE-24
SE/SW 32-38N-9E, DuPage Co., IL (north side of Keating Drive/87th Street)GPS:
41.724934, -88.236359

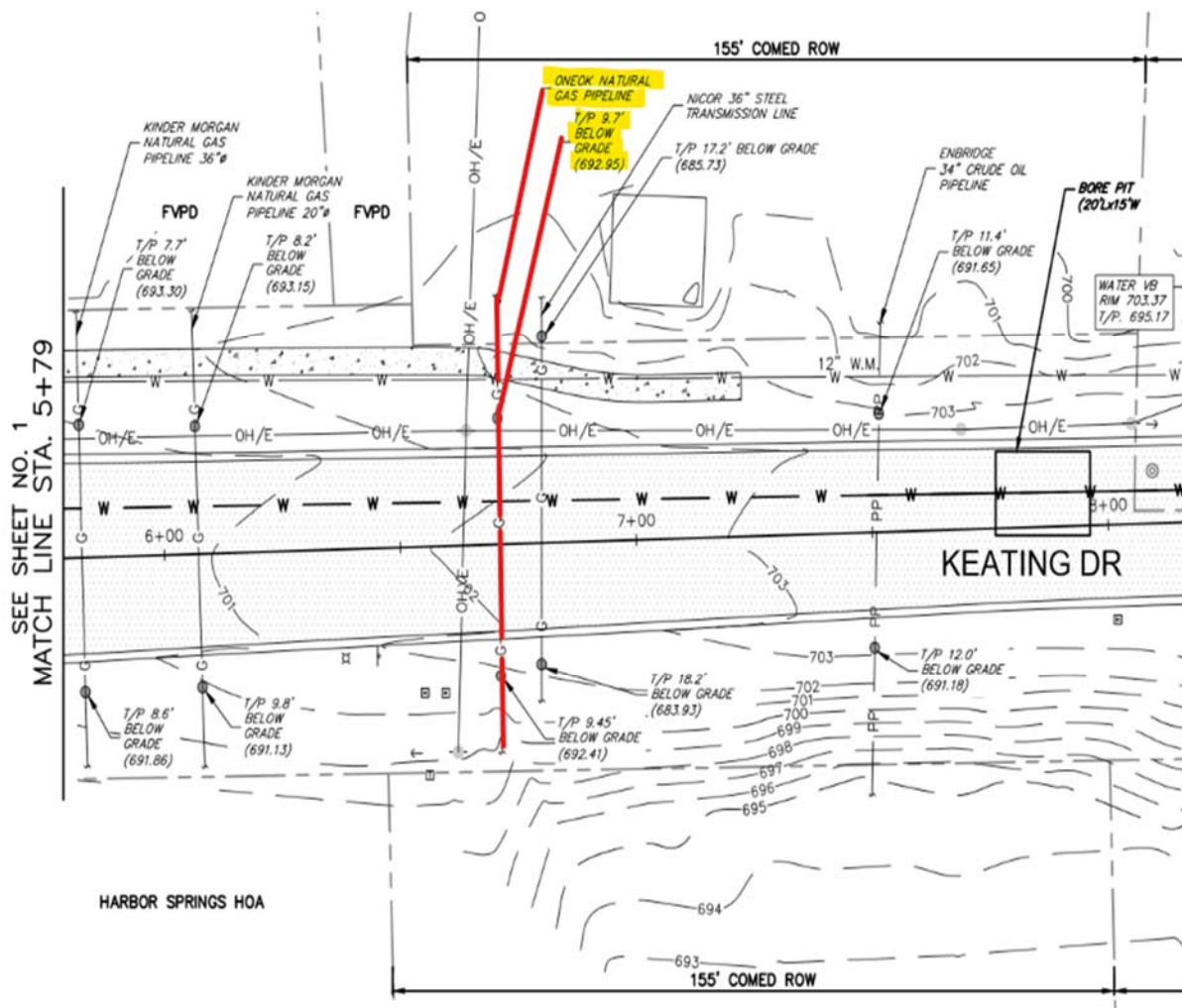


EXHIBIT B

ONEOK CONSTRUCTION SPECIAL PROVISIONS

SPECIAL PROVISIONS:

Encroachment Description:

Waterline: The City is planning on installing a sixteen-inch (16") waterline above the existing Pipeline with a separation distance of at least two feet (2'). The proposed design is shown on drawing 'Keating Drive Water Main Improvements – Sheet 3' dated 08/2023 prepared by City of Aurora – Engineering Division, a copy of which has been delivered to ONEOK. The maximum load use is based off of allowable axle weights per Illinois Rev. Stat. ch. 625, §§5/15-101 et seq. which is a maximum of 20,000 pounds for a single axle and 34,000 pounds for a tandem axle. The equipment maximum loads are listed below.

Requirements:

Waterline: The City agrees to comply with the following:

- The City may temporarily cross the Pipeline with the following equipment:
 - Hydraulic Excavator
 - Front Wheel Loader
 - Dump Truck
- The City shall install the Waterline at a separation distance of at least two feet (2') and in accordance with Exhibit B.

EXHIBIT C

ONEOK GENERAL CONSTRUCTION REQUIREMENTS

PROTECTION OF THE PIPELINE AND EASEMENT AREA OF ONEOK

ONEOK North System, L.L.C. as the owner and operator of pipeline(s) (“Pipeline”) (by and through its direct and indirect subsidiaries or Affiliates) (collectively “ONEOK”), is dedicated to protecting the environment, the public, contractors, and employees. The following requirements and guidelines for constructing, installing, or otherwise placing or permitting any object, natural or artificial over, under or perpendicular (the “Encroachment”) to ONEOK’s Pipeline or easement area (“Easement Area”) are established to comply with governmental regulations and to reduce the risk of damage to ONEOK’s Pipeline. Deviations from the following requirements may be requested in writing and **must** be approved and permitted by ONEOK prior to any such deviation.

City of Aurora (“The City”) desires to construct certain Encroachment’s within ONEOK’s Pipeline and Easement Area (“City Facility”). ONEOK’s consent to the Encroachment is conditioned on The City’s compliance with the applicable terms of these ONEOK General Construction Requirements (“General Requirements”) and any specific construction requirements in any Encroachment Agreement or Letter of No Objection (either an “Agreement”) between the ONEOK and The City regarding the Encroachment. To the extent any of the requirements set forth in these General Requirements conflict with any specific construction requirements in an Agreement, the specific construction requirements of the Agreement will control.

General Requirements:

1. A plan and profile with sufficient detail depicting the relationship between ONEOK’s Pipeline, existing grade, grade during construction, final grade, and all surface and underground Encroachment’s (“**Construction Plan**”) must be provided to ONEOK’s engineering department for evaluation and approval. **All construction drawings shall have notation that reads as follows: “WARNING-High Pressure Natural Gas Pipeline or Natural Gas Liquids Line, Contact the state’s “One-Call” system and ONEOK at 1-800-344-8377 before digging.”** If the Encroachment is part of a development that will eventually result in the construction of a private dwelling, or any industrial building, or place of public assembly within fifty (50) feet of the pipeline, then The City must agree to provide the pipeline with a minimum depth of cover of 48" within the confines of the legal description for which the permit is written, and also to provide a registered plat at The City’s expense of the centerline of the pipeline with respect to The City’s planned improvements.
2. After acquiring approval of the Construction Plan, The City must give at least **forty-eight (48) hours’** notice by calling the appropriate state One-Call telephone number before

starting any individual excavation or other construction work in or near ONEOK's Pipeline or Easement Area.

3. ONEOK's Easement Area must be kept clear of such things as trees, shrubs, ponds, culverts, driveways, rock or brick fences, retaining walls, lateral lines, septic tanks, lagoons, dikes, bridges, canals, levees, burn piles, trash dumps, feeders, pole barns, hay barns, carports, garages, trailers, tanks, buildings, homes or any inhabitable structures, or other obstructions that are not specifically permitted.
4. ONEOK permits the Encroachment only to the extent it may do so by law.
5. The City acknowledges and agrees that ONEOK's review or approval of the Construction Plans and/or other specifications relating to the Encroachments is solely for ONEOK's benefit for the protection of the Pipeline, and without any representation or warranty whatsoever to The City with respect to the adequacy, correctness or efficiency of the Construction Plan or otherwise, and it is understood that ONEOK's review or approval of the Construction Plan does not absolve The City of any liability for the Encroachment.
6. No utilities or roads shall run parallel to the ONEOK Pipeline within the Easement Area.
7. Authorized ONEOK personnel and/or a ONEOK contractor or contract inspector (collectively, "ONEOK Representative") must be present during excavation within twenty-five (25) feet of ONEOK's Pipeline, Easement Area or facility and will be deemed to be present if proper notice was given under this Agreement and appointment set for ONEOK Representative to be present.
8. Blasting within five hundred (500) feet of a ONEOK's Easement Area is subject to evaluation and prior approval by ONEOK.
9. Changes in grade that could cause loss of cover or erosion within the Easement Area are forbidden. Provisions to prevent erosion shall be incorporated into the Construction Plan.
10. Markers and signs must not be obstructed, removed, or damaged; however, any signs damaged or removed during construction and or operations shall be replaced per ONEOK's specifications.
11. Transportation of construction equipment longitudinally over ONEOK's Easement Area is not permitted. A perpendicular construction crossing that provides a minimum of thirty-six (36") inches of cover, and as further described in the Surface Construction Requirements, section of this Exhibit C, must be used to gain access to job sites.
12. Future repairs to ONEOK's Pipeline and or Easement Area, which are required due to the activities of The City, are to be performed at the expense of The City.

13. Pipeline rerouting, lowering, encasing, etc., will be done by ONEOK, or ONEOK's Representative, and will be paid for by The City. The City must pay the estimated costs of such operations in advance.
14. Storage of equipment or materials on ONEOK's Easement Area is prohibited.
15. Ground cover over the Easement Area shall not be reduced and after completion of the Encroachment, the ground cover shall be restored by The City as nearly as reasonably possible to its condition prior to construction activities.

Equipment Restrictions:

1. The use of scrapers or pan-type tractors for soil removal within ten (10) feet of ONEOK's Pipeline is prohibited.
2. The use of vibratory rollers or sheepsfoot rollers within five (5) feet of ONEOK's Pipeline is prohibited. ONEOK will address the best available technique at a reasonable cost given the specific circumstances at the time.
3. If reasonable, teeth covers shall be used on excavating equipment to reduce the chance of damaging ONEOK's Pipeline; however, the heavy equipment operator must dig no closer than one (1) foot from the top, bottom, or sides of the Pipeline, or greater if required by federal, state, or local regulation.
4. Track equipment shall not turn directly over ONEOK's Pipeline.

Surface Construction Requirements:

1. Roads shall cross as close to ninety degrees (90°) to ONEOK's Easement Area as possible. In the event Encroacher will place upon or cross the easement with a load exceeding 20,000 pounds per axle and over eight (8) inches nominal diameter pipe or larger, The City shall install the approved The City Facility as required by ONEOK to ensure the continued safety and integrity of the Pipeline. By way of example and not to be construed as a limitation, in the event The City will place upon or cross the easement with a load exceeding 20,000 pounds per axle and on eight (8) inch nominal diameter pipe or larger, ONEOK may require the placement of wooden ties for temporary crossings and/or constructing a concrete cap. In addition, ONEOK agrees to install signage containing a "High Pressure Natural Gas Pipeline" warning adjacent to any roadway under which the Pipeline is located.
2. At no time will (i) the removal of the existing earth cover from over ONEOK's Pipeline such that ONEOK would be in violation of any existing law, regulation or order be permitted (ii) the cover be allowed to be less than thirty-six (36) inches, except to the extent prior written approval is granted by ONEOK, or (iii) an increase in the existing earth cover cause the total to exceed ten (10) feet over the Pipeline.

3. Temporary construction crossings for heavy equipment access to job sites shall cross as close to ninety degrees (90°) to ONEOK's Easement Area as possible and provide a minimum of ten (10) feet of earth cover or temporary bridges to be approved by ONEOK. Provisions to prevent rutting and erosion shall be used.
4. Structures such as manholes and catch basins cannot be located within ONEOK's Easement Area.
5. Overhead power lines or other such crossings must maintain a twenty-five (25) foot clearance above the entire breadth of ONEOK's Easement Area, and cross as close to ninety degrees (90°) as possible.
6. In the event The City is a Wind Farm, the rotor blades must maintain a seventy-five (75) foot clearance above the entire breadth of ONEOK's Easement Area.
7. Poles, guy wires, etc. cannot be located within the boundaries of ONEOK's Easement Area.
8. Fence posts must be located a minimum of ten (10) feet horizontal distance from ONEOK's Pipeline.

Underground Construction Requirements:

1. Crossings shall be made as close to ninety degrees (90°) to ONEOK's Easement Area as possible.
2. Crossings shall be made under the existing line with a clearance of one and one-half (1.5) times the diameter of the largest pipe, but with at least two (2) feet of separation from ONEOK's Pipeline.
3. Except for portions of crossings installed by boring, a six (6) inch wide warning tape must be installed twelve (12) to eighteen (18) inches above non-metallic lines across the entire width of ONEOK's Easement Area. For crossings installed by boring, markers will be installed at the boring ends and The City will sign the crossing. No tape will be installed between boring markers.
4. Warning signs, where practical, identifying the owner, type of service, and emergency phone numbers shall be placed at each edge of the Easement Area at the crossing locations.
5. Fiber optics cables shall be encased in non-metallic conduit within ONEOK's Easement Area.
6. Power lines must be installed in a non-metallic conduit; however, if a metallic conduit must be installed, cathodic protection will be required. Notwithstanding anything herein to the contrary, underground alternating current (AC) electrical cables with a metallic outer sheath or bare concentric neutral installed within a twenty (20) foot corridor, ten (10) feet on each

side of the Pipeline, should be placed in an insulating conduit or jacket such as reinforced fiberglass, polyethylene or polyvinyl chloride pipe. Cables energized to six hundred (600) volts or more should cross a minimum of three (3) feet below the Pipeline if practical, be incased in concrete if practical, and color coded red, across the entire right-of-way width. If it is practical to encase the cable in concrete, then six (6) inches of red concrete must protect the top of the conduit; however, in these instances concrete may be omitted if forty-eight (48) inches of clearance is maintained. The cable crossing should be clearly and permanently marked on each side of the right-of-way, if practical.

7. Metallic pipe crossings shall have corrosion test leads installed on both pipes at their intersection, if deemed necessary by The City and ONEOK engineers.
8. Bore pits must be ten (10) feet or more from ONEOK's Pipeline. The crossing point must be exposed at least two (2) feet deeper than the bottom of the Pipeline to verify sufficient clearance of the boring tool.
9. Open trench crossings must be made across only one Pipeline at a time. The trench must meet OSHA requirements. Temporary piping supports may be required.
10. Backfilling shall be performed in such a manner that the Pipeline is not subjected to impact damage or excessive stresses, and no large lumps of frozen soil, rocks, gravel, or like materials shall be backfilled directly onto the pipe. No foreign substances, such as welding rods, cans, ropes, skids, brush or trees, are to be placed in any excavation within ONEOK's Easement Area.

Enbridge Crossing Application Requirements

Great Lakes Region Liquid Pipelines

TABLE OF CONTENTS

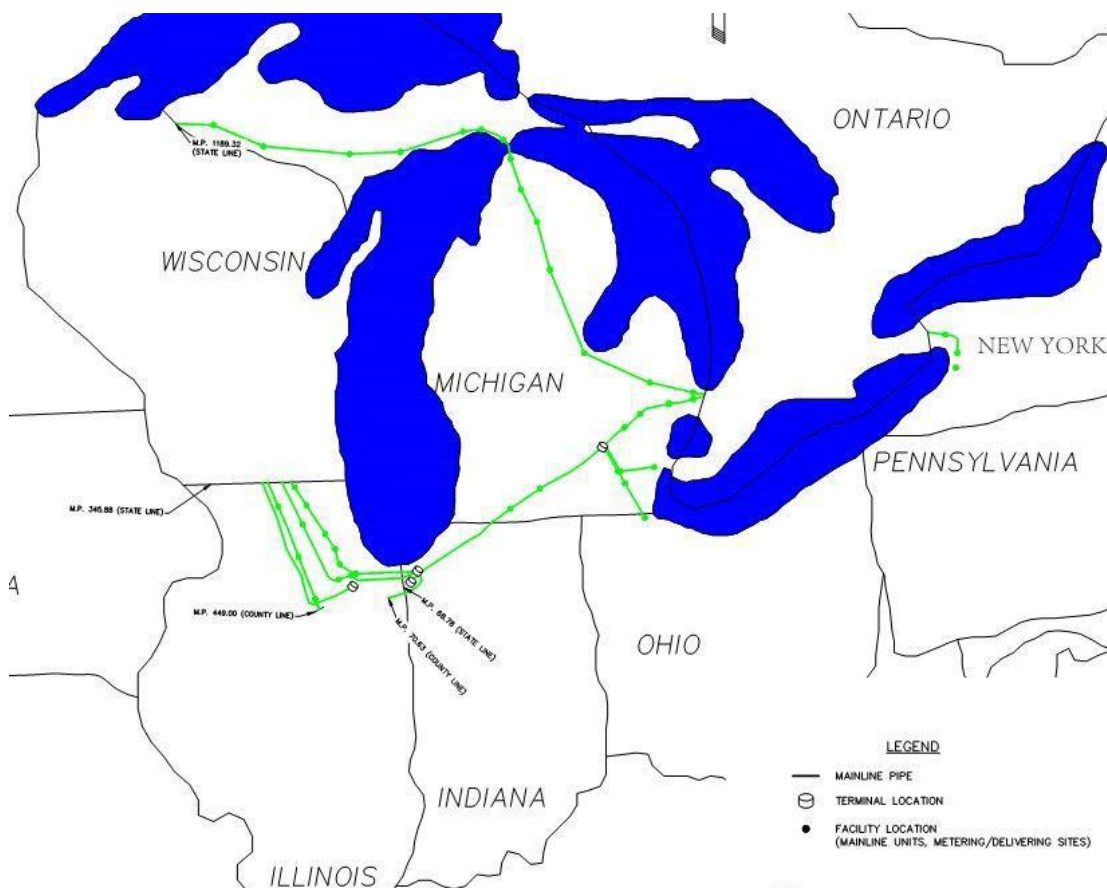
PURPOSE	2
SCOPE	2
DEFINITIONS	2
APPLICATION PROCESS	3
DRAWING REQUIREMENTS	4
Permanent Installations	4
Temporary Activities	5
CONTACT US	6
ONE CALL	6
GENERAL CONSTRUCTION REQUIREMENTS	6
Excavation and Backfill	7
Equipment Use	8
Site Restoration	9
PERMANENT INSTALLATIONS	9
Below Grade Utilities via Open Cut	9
Below Grade Utility via Trenchless Technologies (HB, HDD And Micro-tunneling/Direct Pipe)	10
Above Grade Installations (Including Roads, Railways, etc.)	10
Ditch Restoration/Road Maintenance (Re-Paving Road)	11
Overhead Power Installation	11
Drainage Tile Crossing Enbridge Pipelines	11
TEMPORARY INSTALLATIONS/ACTIVITIES	12
Temporary Workspace	12
Geophysical (Including Blasting, Seismic, Etc.)	12
Temporary Equipment Crossings	12
APPENDIX A: POWERLINE DATA REQUIREMENTS	13
APPENDIX B: TEMPORARY CROSSING RAMPS	15

PURPOSE

The intent of this document is to provide clear and consistent requirements for any Crossing Applicant to protect people, the environment and Enbridge's assets.

SCOPE

The requirements provided in this document are only applicable to Enbridge's liquid pipeline assets in Northern Illinois, Indiana, Michigan, Northern Ohio and Western New York as illustrated in the diagram below:



DEFINITIONS

Crossing Applicant – Is the facility owner or their representative including but not limited to: landowners, utility owners, pipeline/utility contractors, engineers, architects, surveyors, general contractors and their sub-contractors, real estate developers, brokers and agents, lending officers and title underwriters, and local, state and federal governmental entities.

Open Cut – A trench methodology wherein access is gained to the required level underground for the proposed installation, maintenance or inspection of a pipe, conduit or cable. The excavated trench is then backfilled and the surface is restored.

Horizontal Bore (HB) – Meets ALL of the following:

- a) The designed horizontal distance of the crossing shall be less than or equal to 500ft in length; AND
- b) The depth of the installation shall be limited to 25ft to the center (cross-section) of the pilot hole and measured to the corresponding surface location; AND
- c) Straight alignment in the horizontal plane; AND
- d) Pilot bit is steerable and trackable.

Horizontal Directional Drill (HDD) – An HDD is an HB that DOES NOT meet all of the criteria for an HB. An HDD will always meet d but may not meet all of: a, b and c above.

Directional Micro-tunneling/Direct Pipe – Installation of the pipe section by using a thrusting device to provide force on a section of carrier pipe.

Right-of-Way – Land with limited and specific uses that is conveyed by a right-of-way easement (sometimes called a grant), license, lease, or other legal agreement by a current or past property owner to Enbridge. Enbridge's right-of-ways vary in width and in most cases are used to construct, operate, protect, inspect, maintain and/or replace one or more pipelines and its facilities.

Utilities – Includes but not limited to steel and plastic pipelines, overhead or underground power and communication cables, roads, railways and drainage systems.

APPLICATION PROCESS

The Crossing Applicant must submit a written request, either by completing the Crossing Application Form or a letter with equivalent information, together with the applicable drawing(s) to the Enbridge Land Services department as set out in the *Contact Us* section of this document.

The drawing(s) must be prepared in accordance with the minimum standards as set out in the *Drawing Requirements* section of this document.

Written consent from Enbridge must be obtained for any activity listed in this document prior to the start of work.

After submitting the request, Enbridge will review the proposed installation and/or temporary activity in order to ensure that the proposed work will not pose a risk to existing or future Enbridge pipelines and/or facilities, as well as, to ensure that any access required to existing pipelines and/or facilities for maintenance or in an emergency situation will not be impeded.

Applications that do not meet the requirements outlined in this document will require further technical evaluation, which will likely require an additional 4 to 6 week review period prior to Enbridge rendering a decision.

While Enbridge will review and attempt to work with the Crossing Applicant, there is no guarantee that Enbridge will approve the crossing or use of its right-of-way.

NOTE: Incomplete drawings and/or an incomplete application will be rejected back to the Crossing Applicant.

DRAWING REQUIREMENTS

The following represents the minimum information that is required to be shown on the drawing(s) in order for Enbridge to review your application. Dimensions, in imperial units, must be shown on the drawing(s) and all Enbridge facilities must be field verified prior to being added to the drawings.

All as-builts of the permanent installations shall be submitted to Enbridge not less than 12 months after construction is complete.

Note: At the discretion of the Enbridge representative, a sketch and/or marked up aerial may be sufficient.

PERMANENT INSTALLATIONS

All permanent installation drawings to contain the following:

1. Plan Number, including any revision number and the respective date;
2. North Arrow;
3. Scale;
4. Legend;
5. Location indicator including: legal land description, PIN, GPS coordinates;
6. Plan view of whole quarter section or affected area including:
 - a. Lot lines, road limits;
 - b. Proposed facilities (including curbs, footing, guard rails, guy wires, poles, fences, etc.) with tie dimensions to lot survey line preferably along pipeline and/or right-of-way boundary;
 - c. Location of cathodic test lead terminals (if applicable);
7. Cross section view and/or profile view including:
 - a. For surface structures, show profile along pipeline(s);
 - b. For underground facilities show profile along pipeline;
 - c. Property lines, pipeline(s) and depth of cover;
 - d. All underground facilities must maintain an even elevation across the entire width of right-of-way except for gravity type facilities or those facilities installed by HDD;
 - e. Drill path plan for HB/HDD installations; including alignment and entry/exit angles (required to be outside of Enbridge's right-of way);
 - f. Unsupported span (in feet) of Enbridge pipeline for open cut installations (i.e. Trench width);
8. Crossing Angle;
9. Crossing location clearly identified;
10. Identify all affected Enbridge facilities/right-of-way(s) and pipeline markers; Enbridge facilities shall be field verified;
11. Method of Installation (**Refer to Permanent Installations section below*);
12. Minimum Clearance (**Refer to Permanent Installations section below*);
13. Grading profile along the length of the Enbridge pipeline if grading over the pipeline;

14. Facility specifications:

- a. PIPE/CABLE:
 - i. Pipe diameter;
 - ii. Pipe material;
 - iii. Product conveyed;
 - iv. Cathodic protection system (if applicable);
 - v. Cable size;
 - vi. If cable is within a conduit, conduit material;
 - vii. Cable voltage.
- b. ABOVE GRADE INSTALLATIONS (i.e. ROAD, PATH, PARKING LOT, etc.):
 - i. Dimensions of road/path/parking lot, etc.;
 - ii. Cover at ditch;
 - iii. Cover at center of road/path/parking lot, etc.;
 - iv. Minimum cover from top of traveled surface to top of pipeline;
 - v. Surface material;
 - vi. Road/path type/usage;
 - vii. Changes to right-of-way;
 - viii. Maximum temporary grade removal.
- c. OVERHEAD POWER:
 - i. Pole number(s);
 - ii. Location of pole/guy wire/anchors/etc.;
 - iii. Method of installation of pole/guy wire/anchors/etc.;
 - iv. Horizontal clearance to pipe from proposed pole/guy wire/anchors/etc.;
 - v. Vertical clearance to ground/grade;
 - vi. Depth and size of foundations;
 - vii. Refer to Appendix A for additional requirements.
- d. DRAINAGE TILE
 - i. Location of tile.

TEMPORARY ACTIVITIES

All temporary drawings to contain the following:

1. Plan Number, including any revision number and the respective date;
2. North Arrow;
3. Scale;
4. Legend;
5. Location indicator including: legal land description, PIN, GPS coordinates;
6. Plan view of whole quarter section or affected area;
7. Temporary activities location clearly identified;
8. Identify all affected Enbridge facilities/right-of-way(s) and/or easement ownership. Enbridge facilities shall be field verified;
9. Facility specifications:



- a. WORKSPACE
 - i. Location;
 - ii. Measurement of workspace;
 - iii. Purpose.
- b. GEOPHYSICAL
 - i. Charge layout (units/lines);
 - ii. Type and material specification of source;
 - iii. Charge weight per hole;
 - iv. Distance from Enbridge right-of-way.
- c. EQUIPMENT CROSSING
 - i. Complete the Crossing Application Form.

CONTACT US

Please send all applications to the following:

Enbridge – Great Lakes Region
Land Services Department
222 Indianapolis Blvd, Ste. 100
Schererville, IN 46375
GLR.crossings@enbridge.com

ONE CALL

Prior to commencing any ground disturbance activities a “One-Call” must be placed by calling **811**.

In the states where Enbridge operates in, the following are the individual state notification services:

Illinois	J.U.L.I.E.	800-892-0123
Indiana	I.U.P.P.S.	800-382-5544
Michigan	MISS DIG	800-482-7171
Ohio	O.U.P.S	800-362-2764
New York	Dig Safely	800-962-7962

GENERAL CONSTRUCTION REQUIREMENTS

1. A One Call must be placed prior to the commencement of any ground disturbance. Enbridge’s representative must be contacted at least 72 hours prior to any activities near, over or close to any Enbridge pipeline or right-of-way. No work may commence without their presence or prior approval.
2. Crossing Applicant shall ensure that all work associated with their application complies with local, state and federal rules, laws and regulations.
3. Enbridge pipelines shall be positively identified (i.e. daylighted) prior to any ground disturbance. The design shall be amended as necessary in order to maintain the required minimum clearances.

4. Contact Enbridge for remarking a pipeline if Crossing Applicant believes existing markers to be inadequate for any reason, including disturbance during construction.
5. Crossing Applicant shall ensure its field crews performing the crossing work have copies of the Enbridge approved crossing application and letter of agreement.
6. If applicable, all Enbridge signage and test stations shall be protected during construction. Should any of these need relocation due to construction, this work shall only be performed by or under the supervision of an Enbridge representative and at the cost of the Crossing Applicant.
7. There shall be no storage of material, equipment or parking over any Enbridge pipeline. Should soil stockpiles be required to be placed close to any Enbridge pipeline, the Enbridge representative shall be contacted first in order to approve placement (a minimum of five (5) feet from any Enbridge pipeline and limited height shall be five (5) feet above grade).
8. Below grade structures shall not be allowed within the Enbridge right-of-way or within ten (10) feet of any Enbridge pipeline and shall require further technical evaluation.
9. No existing trees within ten (10) feet of any Enbridge pipeline shall be removed without the presence of an Enbridge representative. Due to potential root entanglement issues and coating damage on the pipeline, tree removal at less than ten (10) feet from the pipeline may have to be completed by an Enbridge approved contractor at the cost of the Crossing Applicant.
10. Crossing Applicant to provide designs related to Earth Retention System (ERS) or sheet piling occurring within the Enbridge right-of-way or within twenty-five (25) feet of any Enbridge pipeline for further technical evaluation.
11. Regarding any heavy lifting in close proximity to any Enbridge pipeline;
 - a. Rigging shall be properly maintained, checked, rated and sized correctly for intended load.
 - b. No heavy lifts shall be directly over or swing over any Enbridge pipeline if excavated at the time.
 - c. If heavy lifts shall be over any buried pipeline, the area above the pipeline shall be matted in case of a dropped load.
12. Burning within fifty (50) feet of any Enbridge pipeline shall require further technical evaluation.
13. For subdivision development, there shall be no property lines allowed within the Enbridge right-of-way. Enbridge right-of-way to be used as green space and not subdivided into the adjacent properties.

EXCAVATION AND BACKFILL

1. When installing any utility across or within close proximity to any Enbridge asset, an Enbridge representative must be on site. If, for any reason, the Enbridge representative:
 - a. Is required to leave the work site,
 - b. Has concern for pipeline integrity, or
 - c. Has a concern for safety or security of Enbridge's assets;

The Enbridge representative may instruct the Crossing Applicant to "STOP WORK". The activity shall not recommence until the Enbridge representative returns or the situation in question has been resolved.

2. Excavation equipment shall only use buckets without teeth, or the bucket teeth shall be protected by a flat bar, while excavating to within twenty-four (24) inches of an Enbridge pipeline. If ground conditions require the use of buckets with teeth then approval shall be obtained from the Enbridge representative prior to use.

3. At no time shall mechanical excavating equipment be operated within twenty-four (**24**) inches of an Enbridge pipeline. If required, the final twenty-four (**24**) inches of soil around an Enbridge pipeline shall be removed by hand exposure, water washing, or other non-mechanical means.
4. Should the excavation that includes the pipeline be left open overnight, steel traffic plates and an orange safety fence shall be utilized in order to protect the public, the environment and Enbridge assets.
5. At any location where the pipeline is exposed, the construction schedule must allow Enbridge to inspect the condition of the pipeline and perform any necessary maintenance.
6. Any Enbridge pipeline shall not in any manner be used as a platform while it is excavated.
7. When practical, during backfilling, use all native soil excavated from the trench to restore the original ground profile. If this is not practical, then importing clean material (i.e. sand, clay, etc.) to reinstate the subgrade support beneath the pipeline to the conditions that existed before the excavation is acceptable.
8. Backfill shall be completed with the following method:
 - a) Backfill and compact in no greater than six (**6**) inch lifts up to the 3 o'clock and 9 o'clock positions (bottom half) on pipeline to ensure pipe is well supported;
 - b) After site evaluation of soil type, location and potential overhead traffic, backfill and compact in one (**1**) to two (**2**) feet (no greater than two (**2**) feet) lifts above the 3 o'clock and 9 o'clock positions to achieve final/original finished grade;
 - c) To ensure effective compaction (95% Proctor), recommended equipment includes plate compactors, vibratory tampers and small drum rollers.
9. If flowable fill is used as backfill material, there shall be no fly ash as a component and fill not to exceed a strength of one hundred (**100**) psi.

EQUIPMENT USE

Rollers

The use of vibratory rollers shall require a minimum of five (**5**) feet of compacted cover above any Enbridge pipeline.

Cranes

Cranes working in close proximity to any Enbridge pipeline shall adhere to the following requirements:

- a) Cranes and associated rigging shall be properly maintained, checked, rated and sized correctly for intended load;
- b) The crane shall not be set up within ten (**10**) feet of any Enbridge pipeline;
- c) The outriggers shall not be set up within ten (**10**) feet of any Enbridge pipeline;
- d) No heavy lifts shall be directly over or swing over an Enbridge pipeline if excavated at the time;
- e) Outrigger pads that are appropriately sized shall be utilized;
- f) The crane boom shall not extend over above grade Enbridge facilities during lifting operations;
- g) If heavy lifts shall be over a buried Enbridge pipeline, the area above the pipeline shall be matted in case of a dropped load;
- h) If applicable, the location of the crane shall be coordinated with the ERS design/open excavation to ensure that the construction equipment surcharge load does not exceed design values.

Any cranes that are required to be operated above an Enbridge pipeline will require further technical evaluation.

Scrapers

Usage of scrapers or pan type tractors are NOT PERMITTED in the Enbridge right-of-way or within ten (10) feet of an Enbridge pipeline (measured from centerline).

Dozers

Usage of dozers with ripper teeth are NOT PERMITTED in the Enbridge right-of-way or near any Enbridge pipeline.

Hammering

Usage of manually-operated jack hammers or hoes equipped with jack hammers are NOT PERMITTED within ten (10) feet of any Enbridge pipeline.

SITE RESTORATION

1. All landscaping within any Enbridge right-of-way shall be limited to grass or similar. There shall be no trees allowed within Enbridge's right-of-way or within twenty-five (25) feet of any Enbridge pipeline, whichever is the greater distance.
2. The site shall be restored to its original condition except for expressly agreed upon exceptions.
3. Unless approved by Enbridge, there shall be no reduction in final grade or drainage alteration over any Enbridge pipeline.

PERMANENT INSTALLATIONS

BELOW GRADE UTILITIES VIA OPEN CUT

1. Crossing angle for installations must be within:
 - a. Forty-five and ninety (45-90) degrees (with preference for as close to ninety (90) degrees as possible);
OR
 - b. If the crossing angle is designed to be less than forty-five (45) degrees but the proposed installation follows or parallels an existing utility corridor then the lower crossing angle may be approved;
2. Crossing installations of cathodically protected steel pipes and/or electrical power above 480V AC will require further technical evaluation.

Installations Above An Enbridge Pipeline

1. Applications requesting to go above an Enbridge pipeline will be REJECTED. However, an exception may be allowed if the Crossing Applicant provides a valid reason as to why a crossing under the Enbridge pipeline is not feasible.
2. A minimum clearance of twenty-four (24) inches (measured from outside of pipe to outside of pipe) shall be achieved.
3. Utility warning tape shall be utilized twelve (12) inches below grade, in accordance with A.P.W.A. Uniform Color Code, and in the bottom of the trench (color coded to corresponding Enbridge pipeline).

4. If an aggregate base is utilized at the bottom of the proposed trench, two layers of geotextile material shall be initially added.
5. For installations that are not heavy grade; they shall be installed in conduit casing (Schedule 80 minimum or equivalent) or concrete encasement (dyed red if electrical) with tracer wire. This shall be maintained at a minimum of ten **(10)** feet to each side of any Enbridge pipeline (measured from outside of pipe) or the entire width of the Enbridge right-of-way, whichever is the greater distance.

Installations Below An Enbridge Pipeline

1. A minimum clearance of thirty-six **(36)** inches (measured from outside of pipe to outside of pipe) shall be achieved.
2. Appropriate measures shall be taken to prevent trench/pipe settlement. Special care must be taken to ensure that the compaction between the utility and the Enbridge pipeline is sufficient to mitigate settlement and voids.
3. Maximum Enbridge pipeline unsupported span is twenty **(20)** feet. If maximum unsupported span is exceeded then the application will require further technical evaluation.

BELOW GRADE UTILITY VIA TRENCHLESS TECHNOLOGIES (HB, HDD AND MICRO-TUNNELING/DIRECT PIPE)

1. A minimum clearance of three **(3)** feet shall be achieved for HB.
2. A minimum clearance of ten **(10)** feet shall be achieved for HDD.
3. Clearance is measured by the closest edge of bore path (largest reamer used) to closest edge of pipeline.
4. No blind boring shall be allowed. Both the Enbridge pipeline and the bore head shall be positively identified (i.e. potholed) in order to verify clearances. If this cannot be met then the application requires further technical evaluation.
5. The Crossing Applicant's proposed installation shall be designed to go below the deepest Enbridge pipeline. If this cannot be met then the application requires further technical evaluation.
6. Crossing installations of cathodically protected steel pipes and/or electrical power above 480V AC will require further technical evaluation.
7. Directional Microtunnelling/Direct Pipe crossing applications shall require further technical evaluation.

ABOVE GRADE INSTALLATIONS (INCLUDING ROADS, RAILWAYS, ETC.)

1. A minimum clearance of five **(5)** feet shall be achieved for roadways.
2. A minimum clearance of eight **(8)** feet shall be achieved for railways.
3. A minimum clearance of five **(5)** feet shall be achieved for ditches.

Note: Even if the above minimum clearances are met any property improvements, including but not limited to, structures, pathways, sidewalks, driveways, roadways, parking lots, railways, airport runways and ditches to be installed and/or constructed on or near an Enbridge right-of-way shall require further technical evaluation.

Signs and Fence Post Installations

1. Where possible, no post shall be installed within five **(5)** feet of an Enbridge pipeline (measured from nearest edge of pipe to closest edge of post).
2. Fence crossings, where possible, shall be at an angle between sixty and ninety **(60-90)** degrees (with preference for as close to ninety **(90)** degrees as possible).
3. Fences parallel to an Enbridge pipeline shall be at least ten **(10)** feet from the pipeline (measured from centerline).
4. No masonry, brick, or stone fences shall be installed on any Enbridge right-of-way.

DITCH RESTORATION/ROAD MAINTENANCE (RE-PAVING ROAD)

Road maintenance limited to the following is permitted:

1. Repaving with a maximum allowed milling of six **(6)** inches; AND
2. Adding fill that does not exceed two **(2)** feet in depth of the travelled portion of an existing road; AND
3. Where the work does not include road widening, excavation or ditch lowering.

All proposed existing pavement removal over any Enbridge pipeline shall be completed by dozer, shovel excavator or similar construction machinery. No hammering removal methodology shall be allowed within ten **(10)** feet of any Enbridge pipeline.

If these criteria are not met, then further technical evaluation is required.

OVERHEAD POWER INSTALLATION

Crossing applications shall require further technical evaluation.

DRAINAGE TILE CROSSING ENBRIDGE PIPELINES

A minimum vertical clearance of twelve **(12)** inches for perpendicular pipe crossings shall be maintained.

The following types of drainage tile applications shall require further technical evaluation:

1. Drainage well applications;
2. Other methods of water removing/de-watering;
3. Drainage tile that parallels any Enbridge pipeline within twenty **(20)** feet (measured from centerline of pipeline).

TEMPORARY INSTALLATIONS/ACTIVITIES

TEMPORARY WORKSPACE

Crossing applications shall require further technical evaluation.

GEOPHYSICAL (INCLUDING BLASTING, SEISMIC, ETC.)

Any geophysical activities occurring within six hundred (**600**) feet of any Enbridge pipeline will require further technical evaluation.

TEMPORARY EQUIPMENT CROSSINGS

1. If the minimum cover over an Enbridge pipeline is less than forty-eight (**48**) inches, then the crossing will require further technical evaluation;
2. If the minimum cover over an Enbridge pipeline is forty-eight (**48**) inches then the weight of the heaviest piece of equipment shall not exceed **22,000lbs** per axle (Wheeled) or **100,000 lbs** (Tracked);
3. Site conditions (such as damp soil, snow, etc.), as determined by the Enbridge Representative, shall require matting (six (**6**) inches minimum) or temporary ramps (refer to Appendix B) to be installed by the Crossing Applicant.

Note: At the discretion of the Enbridge representative, matting or temporary ramps may be required regardless of conditions. If an aggregate base is utilized two layers of geotextile material shall be initially added.

4. Crossings shall be at an angle between forty-five and ninety (**45-90**) degrees (with preference for as close to ninety (**90**) degrees as possible).

APPENDIX A: POWERLINE DATA REQUIREMENTS

The following information is required for each powerline near an Enbridge pipeline:

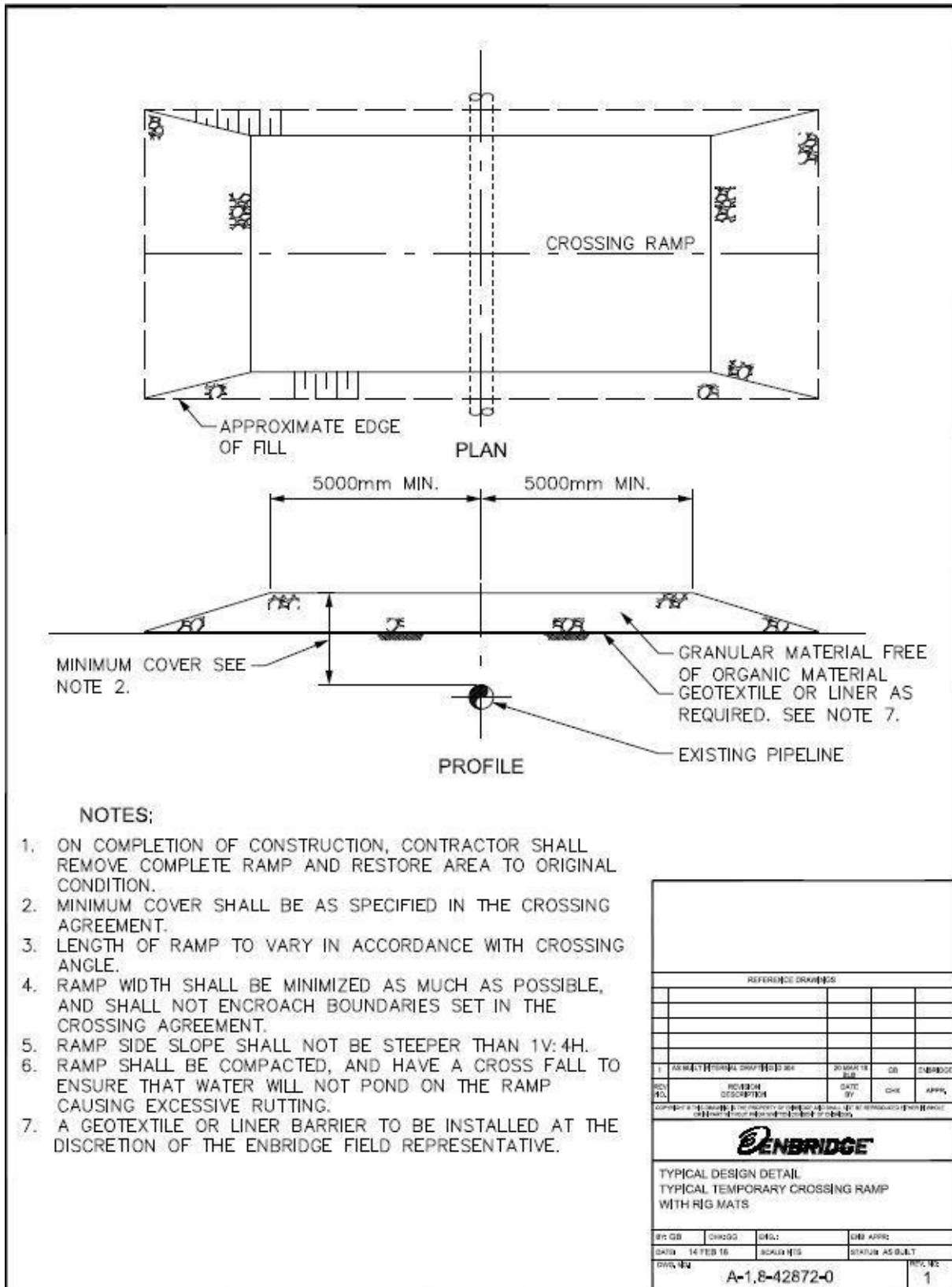
1. Powerline circuit number/ID number/name.
2. System voltage (line to line).
3. Sketch of the tower configuration, showing the positions of all conductors (phase conductors, shield wires), including:
 - a. Vertical separation between conductors,
 - b. Average height of conductors, or height of conductors at the tower and at mid-span,
 - c. Horizontal separations between conductors,
 - d. Phase arrangement (i.e. A-B-C top-bottom for each circuit) and
 - e. East and West circuits.
4. Shield wire information:
 - a. Shield wire size, type (material),
 - b. Shield wire resistance (ohm/mile) and
 - c. Are shield wires continuous or segmented.
5. Tower grounding:
 - a. Typical grounding details (drawing or sketch), if grounding electrodes are used,
 - b. Tower foundation details (suspension towers only), to estimate the resistance of the “natural grounding” provided by the tower foundation,
 - c. Grounding resistance of each tower, if known,
 - d. Average tower grounding resistance to remote earth, if known and
 - e. Details of counterpoise.
6. Average separation between the towers.
7. Locations and details of any phase transposition along the common right-of-way (pipeline chainage or GPS coordinates of the transposition towers or marking on the drawings). Please indicate the phase arrangement at each transposition tower.
8. Phase current loading:
 - a. Peak annual,
 - b. Peak projected,
 - c. Average annual,
 - d. Average projected and
 - e. Emergency (on one circuit, when the second circuit is shut down).
9. Line-to-ground fault currents:
 - a. At beginning of common right-of-way:
 - i. Total fault current,
 - ii. Fault current contributions from the North and
 - iii. Fault current contributions from the South.
 - b. At middle of common right-of-way:
 - i. Total fault current,

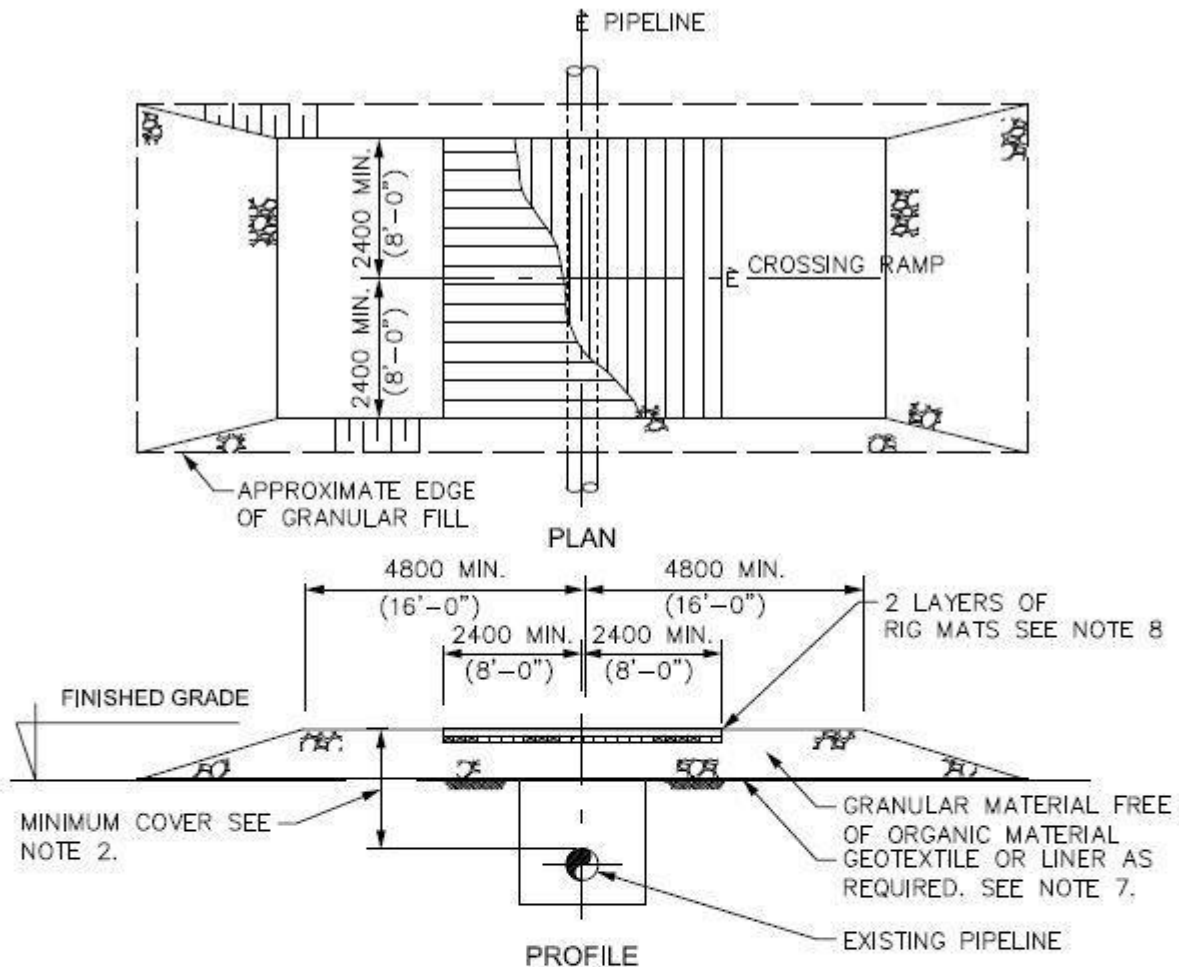
- ii. Fault current contributions from the North and
 - iii. Fault current contributions from the South.
- c. At end of common right-of-way:
 - i. Total fault current,
 - ii. Fault current contributions from the North and
 - iii. Fault current contributions from the South.

10. Line-to-ground fault duration:

- a. minimum (primary protection) and
- b. maximum (backup protection).

APPENDIX B: TEMPORARY CROSSING RAMPS





NOTES:

1. ON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL REMOVE COMPLETE RAMP AND RESTORE AREA TO ORIGINAL CONDITION.
2. MINIMUM COVER SHALL BE AS SPECIFIED IN THE CROSSING AGREEMENT.
3. LENGTH OF RAMP TO VARY IN ACCORDANCE WITH CROSSING ANGLE.
4. RAMP WIDTH SHALL BE MINIMIZED AS MUCH AS POSSIBLE, AND SHALL NOT ENCROACH BOUNDARIES SET IN THE CROSSING AGREEMENT.
5. RAMP SIDE SLOPE SHALL NOT BE STEEPER THAN 1V:4H.
6. RAMP SHALL BE COMPACTED, AND HAVE A CROSS FALL TO ENSURE THAT WATER WILL NOT POND ON THE RAMP CAUSING EXCESSIVE RUTTING.
7. A GEOTEXTILE OR LINER BARRIER TO BE INSTALLED AT THE DISCRETION OF THE ENBRIDGE FIELD REPRESENTATIVE.
8. RIG MATS SHALL BE STAGGERED OR PLACED IN A PERPENDICULAR ORIENTATION FROM THE PREVIOUS LAYER SO THAT THE EDGES DO NOT LINE UP
9. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED

REFERENCE DRAWINGS					
1	AS BUILT DETAILS DRAWING NO.	20 MAR 16	DB	ENBRIDGE	
REV	REVISION	DATE	CHK	APPV	
1A	DESCRIPTION	BY			
<p>Consent to publish does not constitute the property of the publisher and shall not be reproduced without the publisher's prior written consent.</p>					
					
<p>TYPICAL DESIGN DETAIL TYPICAL TEMPORARY CROSSING RAMP WITH RIG MATS</p>					
BY DB	CHKD	DATE	ENR APPV		
DATE	14 FEB 16	SCALE 1/8"	STATUS AS BUILT		
<p>DWG. NO. A-1.8-42873-0</p>					<p>REV. NO. 1</p>