

ADDENDUM No. 01
Issued: February 21, 2024

Orchard Drive Sanitary Lining
City of Northville
OHM Job No.: 0152-24-0010

The following changes, additions, and/or clarifications to the Contract Documents shall be incorporated in the Contract Documents. This addendum will be included in its entirety in the final, executed version of the Contract Book.

The Bidder shall acknowledge receipt of this addendum on Bid Form Page 1 of their submitted offer.

The following items comprise this Addendum:

Addendum No. 1 – 2 pages
Bid Form (rev. 02/20/2024) – 5 pages
01 73 00_ Execution (rev 2/21/2024)—7 pages
Plan Sheets 4-6 (rev. 02/20/2024) – 3 pages

ADDITIONS AND CHANGES TO THE DRAWINGS:

1. Replace Plan Sheets 4-6 with the enclosed version. The changes are the following:
 - a. Updated the quantities to the appropriate values per each sheet and replaced the “Sanitary Sewer, PVC Truss, 8-12 inch, Sewer Cleaning and CCTV” with “CCTV and Normal Sewer Cleaning, 8-12 inch” and “CCTV and Heavy Sewer Cleaning, 8-12 inch”

BID FORM:

1. Corrected quantities as follows:
 - a. Updated the quantity for “CCTV and Normal Sewer Cleaning, 8-12 inch” to 1830 Ft.
 - b. Updated the quantity for “Sanitary Sewer CIPP Liner, 8 inch” to 1,488 Ft.
 - c. Updated the quantity for “Sanitary Sewer CIPP Liner, 10 inch” to 442 Ft.
 - d. Updated Bid Item Number for the following:
 - i. Sanitary Sewer CIPP Liner, 8 inch was changed to bid item 5
 - ii. Sanitary Sewer CIPP Liner, 10 inch was changed to bid item 6
 - iii. Sanitary Sewer Bypass Pumping was changed to bid item 7

01 73 00 EXECUTION

1. Replace section 3.11 Water with the following:

The Owner will make water available during the life of this Contract.

The Contractor shall not make a connection to any public water main or fire hydrant without first obtaining the necessary permit and/or meter from the Owner. All hydrants

shall be operated exclusively by the Owner's personnel. If the provided meter is damaged while in use by the Contractor, the Contractor must replace the meter at no expense to the City.

An approved backflow preventer is required to be provided by the Contractor before making any connection to the City's water system.

Existing public water systems shall be operated and controlled by the Owner. All valves shall be operated exclusively by the Owner's personnel.

QUESTIONS AND ANSWERS

1. Q. The total amount to CCTV & Normal Clean is only 1,824LF, however the total lining amount is 2,359LF (1,924 8" / 435 10"). Please confirm that all the segments for CIPP Lining are included in the CCTV and Normal Clean.

A. The bid document has been updated with the correct values. There are 1,488 LF of 8-inch CIPP lining and 442 LF of 10-inch CIPP lining for a total of 1,930 LF of CCTV and cleaning. The CCTV and cleaning is split up into 100 LF of CCTV and heavy cleaning and 1,830 LF of CCTV and normal cleaning. All of the segments that are proposed to be lined are anticipated to require normal cleaning. However, a heavy cleaning pay item has been added to the bid with a small quantity in cases where it may be needed.

2. Q. Do you have a shot sheet of all the segments that will be cleaned / CIPP Lined?

A. Below is a table describing each run of sanitary sewer from manhole to manhole proposed to be lined, CCTV and cleaned:

Length	Diameter	Maximum Depth
241 LF	10"	7.0
201 LF	10"	9.1
194 LF	8"	9.1
347 LF	8"	6.7
163 LF	8"	7.8
218 LF	8"	5.9
114 LF	8"	5.9
248 LF	8"	8.1
204 LF	8"	9.9

3. Q. Is above ground audio/video route survey required on this project?

A. There is no requirement for above ground audio/video route survey on this project.

4. Q. Will the contractor be permitted to utilize city water and sewer for the completion of this project? Also, if permitted to access city hydrants, what is the cost of the meter as mentioned in the contract documents?

- A. The contractor will be permitted to use City water and sewer for this project at no charge because it is a City project. An approved backflow preventer must be provided by the Contractor prior to use of any hydrants. Additionally, the City will be responsible for operating the hydrants and they shall not be operated by the Contractor. Please see revised specification section 01 73 00 Execution.**

End of Addendum No. 01

BID FORM FOR CONSTRUCTION CONTRACT

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

The City of Northville
215 W. Main Street
Northville, MI 48167

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2—ATTACHMENTS TO THIS BID

2.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner;
- B. List of Proposed Subcontractors;
- C. List of Proposed suppliers
- D. Evidence of authority to do business in the state of the project; or a written covenant to obtain such authority within the time for acceptance of Bids;
- E. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids; and
- F. Required Bidder Qualification Statement with supporting data.

ARTICLE 3—BASIS OF BID—UNIT PRICES

3.01 Bidder will perform the following Work at the indicated unit prices:

Item	Description	Estimated Quantity	Units	Bid Unit Price	Bid Amount
1	Mobilization, Max 10%	1	LSUM	\$	\$
2	Minor Traffic Control Devices	1	LSUM	\$	\$
3	CCTV and Normal Sewer Cleaning, 8-12 inch	1830	Ft	\$	\$
4	CCTV and Heavy Sewer Cleaning, 8-12 inch	100	Ft	\$	\$
5	Sanitary Sewer CIPP Liner, 8 inch	1488	Ft	\$	\$

Item	Description	Estimated Quantity	Units	Bid Unit Price	Bid Amount
6	Sanitary Sewer CIPP Liner, 10 inch	442	Ft	\$	\$
7	Sanitary Sewer Bypass Pumping	1	LSUM	\$	\$
Total Bid Amount (ITEMS 1-6):					\$

A. Bidder acknowledges that:

- each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
- estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 4—TIME OF COMPLETION

- 4.01 Bidder agrees that the Work will be substantially complete on or before **May 7, 2024** and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before **May 20, 2024**.
- 4.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 5—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

5.01 *Bid Acceptance Period*

- A. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

5.02 *Instructions to Bidders*

- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

5.03 *Receipt of Addenda*

- A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Bidder's Representations*

- A. In submitting this Bid, Bidder represents the following:
- Bidder has examined and carefully studied the Bidding Documents, including Addenda.
 - Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

6.02 Bidder's Certifications

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
 - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
 - b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.

- c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
- d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

BIDDER hereby submits this Bid as set forth above:

Bidder:

(typed or printed name of organization)

By:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.

Attest:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

Address for giving notices:

Bidder's Contact:

Name:

(typed or printed)

Title:

(typed or printed)

Phone:

Email:

Address:

Bidder's Contractor License No.: (if applicable)

SECTION 01 73 00 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. General installation of products.
 - 4. Progress cleaning.
 - 5. Starting and adjusting.
 - 6. Protection of installed construction.
 - 7. Correction of the Work.
- B. Related Sections include the following:
 - 1. Division 01 Section "Project Management and Coordination" for procedures for coordinating field engineering with other construction activities.
 - 2. Division 01 Section "Submittal Procedures" for submitting surveys.
 - 3. Division 01 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
 - 1. Before construction, verify the location and points of connection of utility services.
- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
 - 3. For protection of underground utilities, the Contractor shall contact "MISS DIG" at 1-800-482-7171 a minimum of three (3) working days prior to excavating. This does not relieve the Contractor of the responsibility of notifying utility owners who may not be part of the "MISS DIG" alert system.

4. Where any utility, water, sewer, gas, telephone or any other public or private utilities are encountered, the Contractor must provide adequate protection for them, and he will be held responsible for any damages to such utilities arising from his operations.
 5. When it is apparent that construction operations may endanger the foundation of any utility, conduit, or support of any structure, the Contractor shall notify the utility owner of this possibility, and he shall take such steps as may be required to provide temporary bracing or support of conduits or structures.
 6. In all cases where permits or inspection fees are required by utilities in connection with changes to or temporary support of their conduits, the Contractor shall secure permits and pay all inspection fees.
 7. When it is necessary in order to carry out the work that a pole, telephone or electric, be moved to a new location or moved and replaced after construction, the Contractor shall arrange for moving such pole or poles and the lines thereof, and shall pay any charges.
 8. Where it is the policy of any utility owner to make his own repairs to damaged conduit or other structures, the Contractor shall cooperate to the fullest extent with the utility Owner and shall see that his operations interfere as little as possible with the utility Owner's operations.
 9. Sump Pump Discharge Pipe: Any discharge pipe from sump pumps or yard drains encountered on this project, whether or not shown on the plans, which discharges to existing ditches and/or storm sewers or cross public or private easements, shall be maintained, replaced, or reconnected as necessary. Bulkheads shall be placed only as approved by the Engineer. Sump pump connections shall be made to the storm drain pipe by a coring method as approved by the Engineer. The Contractor shall use adequate measures to prevent soil erosion, sedimentation, and/or ponding when connecting discharge pipes to existing or proposed ditches. This work shall be considered as incidental to the cost of the project.
 10. Existing Sewer Facilities: Existing sewers or drains may be encountered along the line of work. In all such cases, the Contractor shall perform his operation in such a manner that sewer service will not be interrupted. He shall, at his own expense, make all temporary provisions to maintain sewer service (both dry weather and storm flows).
 11. Unless otherwise indicated on the plans, the Contractor shall replace, at his own expense, any disturbed sewer or drain, or relay same at a new grade to be established by the Engineer such that sufficient clearance for the sewer will be provided.
 12. Existing Water Facilities: Where existing water mains and/or water services are encountered in the work, they shall be maintained in operation. They shall be relayed if necessary using the class of pipe and fittings standard to the Owner of the main.
 13. Existing Drains: Drainage through existing sewers, ditches and drains shall be maintained at all times during construction, and all nearby gutters shall be kept open for drainage.
 14. Maintenance of services as described above shall be considered as incidental to the project cost unless pay items have been included in the bid form for this work.
- C. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Engineer. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents. Submit requests on Engineer approved form.
- E. Verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Engineer promptly.
- F. General: The ENGINEER will be responsible for the Construction Staking as part of this project. They will complete the following:
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 3. Inform installers of lines and levels to which they must comply.
 - 4. Check the location, level and plumb, of every major element as the Work progresses.
 - 5. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
 - 6. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
 - 7. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.

3.3 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Engineer. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Engineer before proceeding.
 - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.

- C. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.

3.4 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 - 4. Maintain minimum headroom clearance of 8 feet in spaces without a suspended ceiling.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Engineer.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.5 DUST CONTROL

- A. All haul roads, detour roads, temporary access roads, other public or private roads, driveways and parking lots used by the Contractor must be maintained in a dust free condition for the duration of the Contract. The control of the dust shall be accomplished by application of dust control materials and methods of application as approved and as directed by the Engineer. Such dust control materials shall be applied as often as is necessary to control dust. Neglect of dust control will not be tolerated.

Should the Contractor be negligent of his duties in providing dust control, the Owner may, with or without notice cause the same to be done and deduct the cost of such work from any monies due or to become due the Contractor under the Contract. Cost of providing dust control shall be considered incidental to the project.

3.6 STREET CLEANING

- A. The Contractor shall keep the streets clean. Trucks hauling excavated material, cement, sand, stone or other loose materials from or to the site shall be tight so that no spillage will occur on adjacent streets. Before trucks start away from the site, their loads shall be trimmed and covered. If, in the judgment of the Owner, adequate cleanup efforts are not being expended, including but not limited to, roadway, driveway and drainage maintenance, and removal of surplus materials, further construction shall be halted and work forces directed to the cleanup activity until proper order is restored. Should the Contractor continue to be negligent of his duties in maintaining proper street cleanliness, the Owner will take necessary steps to perform such cleaning and shall charge the Contractor for all the costs.

3.7 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F.
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.8 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 01 Section "Quality Requirements."

3.9 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.
- C. Provide and maintain weather protection and heating at Contractor's expense to properly protect the work under construction from damage if the weather conditions require. This work shall include all windbreaks, insulations cover, and other necessary measures required to provide protection from freezing. Continue to provide weather protection and heating as necessary until such time as the Owner takes over the work.

3.10 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 01 Section "Cutting and Patching."
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.

- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

3.11 WATER

The Owner will make water available during the life of this Contract.

The Contractor shall not make a connection to any public water main or fire hydrant without first obtaining the necessary permit and/or meter from the Owner. All hydrants shall be operated exclusively by the Owner's personnel. If the provided meter is damaged while in use by the Contractor, the Contractor must replace the meter at no expense to the City.

An approved backflow preventer is required to be provided by the Contractor before making any connection to the City's water system.

Existing public water systems shall be operated and controlled by the Owner. All valves shall be operated exclusively by the Owner's personnel.

3.12 REPAIR OF DAMAGE

The Contractor shall be responsible for repairing all damages to existing lawns, sidewalk, parking lots, streets or other areas outside the limits of the Contract. Private utilities, private ornamental gas or electric lights, sprinkler systems, fences, shrubs, trees, existing sidewalk, or any other surface or subsurface items of value damaged by the Contractor shall be repaired, replaced or removed and replaced to at least equal condition at the Contractor's expense unless otherwise specified on the plans.

END OF SECTION 01 73 00