# ADVERTISEMENT FOR BIDS

MUSKINGUM COUNTY COMMISSIONERS
MUSKINGUM COUNTY WATER AND SEWER DISTRICT
401 MAIN STREET
ZANESVILLE OH 43701

Separate sealed bids for construction of **CONTRACT NO. TBD-2026 WATER MAIN EXTENSIONS TO DOZER RIDGE ROAD, JOHNSON HILL ROAD, MOODY HOLLOW ROAD, PLETCHER HILL ROAD, TWYMAN HILL ROAD, AND STAKER HILL ROAD** will be received by the MUSKINGUM COUNTY COMMISSIONERS at their office at 401 Main Street, Zanesville, Ohio, 43701 until **April 23, 2026** at **10:00 am**, local time, and then at said office publicly opened and read aloud.

The Instructions to Bidders, Form of Bid, Form of Contract, Specifications and Forms of Bid Guaranty Bond, may be examined at the following:

1. Muskingum County Engineer's Office
   109 Graham Street
   Zanesville, OH 43701
   740-455-0155

2. Muskingum County Water Department
   375 Richards Road
   Zanesville OH 43701
   740-453-0678

No paper copies will be provided; however, electronic copies of the password-protected Bidding Documents may be obtained from the Muskingum County Engineer's website: www.mceo.org/bidding.aspx. Bidders MUST register as plan holders by emailing bids@mceo.org to obtain password for Bidding Documents.

**Contract No. TBD-2026**
**Water Main Extensions to Dozer Ridge Road, Johnson Hill Road, Moody Hollow Road, Pletcher Hill Road, Twyman Hill Road, and Staker Hill Road:**

**UNIT PRICE CONTRACT** consisting of construction of approximately 19,160 linear feet of water main which includes 7,218 linear feet of 3-inch PVC water main installed by open trench methods, 450 linear feet of 3-inch HDPE water main installed by horizontal directional drilling, 191 linear feet of 4-inch PVC water main installed by open trench methods, 402 linear feet of 4-inch HDPE water main installed by horizontal directional drilling, 8,871 linear feet of 6-inch PVC water main installed by open trench methods, 2,028 linear feet of 6-inch HDPE water main installed by horizontal directional drilling, four (4) 3-inch gate valves, one (1) 4-inch gate valve, ten (10) 6-inch gate valves, 18 manual air release assemblies, seven (7) fire hydrant assemblies (optional item), five (5) flushout assemblies, 30 customer service connections (25 standard meter settings and 5 tandem meter settings), 531 linear feet of service tubing (363

INSTRUCTION FOR BIDDERS

BIDS will be received by the **Muskingum County Commissioners, Attn: Projects Director,** (herein called the "OWNER"), at their office at **401 Main Street, Zanesville, OH 43701** until **10:00 am** Local Time, **April 23, 2026** and then at said office publicly opened and read aloud for **Contract No. TBD-2026 Water Main Extensions to Dozer Ridge Road, Johnson Hill Road, Moody Hollow Road, Pletcher Hill Road, Twyman Hill Road, and Staker Hill Road.**

Each sealed envelope containing the BID must be plainly marked on the outside the name of the BIDDER, his address, and the name of the project for which the BID is submitted.

Each BID must be submitted in a sealed envelope, addressed to the Muskingum County Commissioners, Attn: Projects Director, 401 Main Street, Zanesville, OH 43701. Each sealed envelope containing a BID must be plainly marked on the outside the name of the BIDDER, his address, and the name of the Project for which the BID is submitted. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER at: **Muskingum County Commissioners, Attn: Projects Director, 401 Main Street, Zanesville, Ohio 43701.**

All BIDS must be made on the required BID FORM. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID FORM must be fully completed and executed when submitted. Only one (1) copy of the BID FORM is required.

Each BID ENVELOPE shall include and be submitted with BID:

(a) Required Bid Guaranty in the form of Bid Bond or Certified Check
(b) Contractor Equal Employment Opportunity Certification
(c) Certification Regarding Debarment
(d) Disadvantaged Business Enterprises (DBE) Utilization - EPA Forms 6100-2, 6100-3 and 6100-4
(e) American Iron and Steel Acknowledgement
(f) Build America Buy America Acknowledgement
(g) Byrd Anti-Lobbying Certification
(h) Certification of Compliance with Federal Labor Law Provisions
(i) Certification of Compliance with Air and Water Acts

**The Cost Estimate of this project is $ 731,403.00 .**

BIDS will be accepted from only those BIDDERS who obtain Documents from the **MUSKINGUM COUNTY ENGINEER'S WEBSITE**. BIDDERS who submit a BID must be a Plan Holder of Record at the **MUSKINGUM COUNTY ENGINEER'S** Office. BIDS from BIDDERS who are not on the Plan Holders List may be returned as being non-responsive.

Any BID may be withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within 60 days after the actual date of the opening thereof. Should there be reasons why the Contract cannot be awarded within the specified period; the time may be extended by mutual agreement between the OWNER and the BIDDER.

The OWNER reserves the right to reject any and all BIDS, to waive any and all informalities or minor defects and to negotiate contract terms with the successful BIDDER, and the right to disregard all nonconforming, nonresponsive or conditional BIDS. Discrepancies between words and figures will be

5. In submitting this BID, BIDDER represents, as more fully set forth in the AGREEMENT, that:

(a) BIDDER has examined copies of all the Contract Documents and the following addenda:

| Date | Number |
|---|---|

(receipt of all of which is hereby acknowledged) and also copies of the ADVERTISEMENT or INVITATION TO BID and the INSTRUCTION TO BIDDERS.

(b) BIDDER has examined the site and locality where the work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the work and has made such independent investigations as BIDDERS deems necessary.

(c) BIDDER has chosen the manner in which they intend to construct the proposed waterline improvements and has filled out Part A: Base Bid to utilize a combination of open trench and horizontal directional drilling methods OR Part B: Alternative No. 1 to utilize the horizontal directional drilling method exclusively. Accordingly, the BIDDER has filled out ONLY Part A or Part B for their Unit Price Bid. Bid forms that have both Part A and Part B filled out WILL BE DEEMED NON-RESPONSIVE and the bid will be eliminated from further consideration.

6. UNIT PRICE BID:

**Contract No. TBD-2026**

**Water Main Extensions to Dozer Ridge Road, Johnson Hill Road, Moody Hollow Road, Pletcher Hill Road, Twyman Hill Road, and Staker Hill Road**

## PART A: BASE BID – OPEN TRENCH + HORIZONTAL DIRECTIONAL DRILLING

| No. | Item | Quantity | Units | Unit Cost | Total Cost |
|---|---|---|---|---|---|
| 1 | 3" PVC SDR21 ASTM D2241 (Open Trench) | 7,218 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 2 | 3" IPS HDPE SDR11 AWWA C906 (Directionally Drilled) | 450 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |

| No. | Item | Quantity | Units | Unit Cost | Total Cost |
|---|---|---|---|---|---|
| 3 | 4" PVC SDR18 AWWA C900 (Open Trench) | 191 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 4 | 4" IPS HDPE SDR11 AWWA C906 (Directionally Drilled) | 402 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 5 | 6" PVC SDR18 AWWA C900 (Open Trench) | 8,871 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 6 | 6" IPS HDPE SDR11 AWWA C906 (Directionally Drilled) | 2,028 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 7 | Service Tubing (Open Trench) | 168 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 8 | Service Tubing (Directionally Drilled) | 363 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |

| No. | Item | Quantity | Units | Unit Cost | Total Cost |
|---|---|---|---|---|---|
| 9 | Standard Meter Setting | 25 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 10 | Tandem Meter Setting | 5 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 11 | 3" Resilient Wedge Gate Valve | 4 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 12 | 4” Resilient Wedge Gate Valve | 1 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 13 | 6” Resilient Wedge Gate Valve | 10 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 14 | 6” Fire Hydrant Assembly **(Optional Item)** | 7 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 15 | 2” Flushout Assembly | 5 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |

| No. | Item | Quantity | Units | Unit Cost | Total Cost |
|---|---|---|---|---|---|
| 16 | Manual Air Release Valve Assembly | 18 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 17 | Standard Water Service | 30 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 18 | Tie-In to Existing Water Main | 1 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 19 | Seeding | 16,588 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 20 | Final Trench Backfill and Cleanup | 16,588 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 21 | Watermain Testing | 19,160 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 22 | Construction Audio-Video Recording | 1 | LS | $ _____ | $ _____ |
| | | | | $ _____ Written | |

| No. | Item | Quantity | Units | Unit Cost | Total Cost |
|---|---|---|---|---|---|
| 23 | Maintenance of Traffic | 1 | LS | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 24 | Mobilization | 1 | LS | $ _____ | $ _____ |
| | | | | $ _____ Written | |

**TOTAL AMOUNT PART A: BASE BID** _____ Written $ _____

## PART B: ALTERNATE BID NO. 1 – HORIZONTAL DIRECTIONAL DRILLING ONLY

| No. | Item | Quantity | Units | Unit Cost | Total Cost |
|---|---|---|---|---|---|
| 2 | 3" IPS HDPE SDR11 AWWA C906 (Directionally Drilled) | 7,668 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 4 | 4" IPS HDPE SDR11 AWWA C906 (Directionally Drilled) | 593 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 6 | 6" IPS HDPE SDR11 AWWA C906 (Directionally Drilled) | 10,899 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |

| No. | Item | Quantity | Units | Unit Cost | Total Cost |
|---|---|---|---|---|---|
| 7 | Service Tubing (Open Trench) | 168 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 8 | Service Tubing (Directionally Drilled) | 363 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 9 | Standard Meter Setting | 25 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 10 | Tandem Meter Setting | 5 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 11 | 3" Resilient Wedge Gate Valve | 4 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 12 | 4” Resilient Wedge Gate Valve | 1 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 13 | 6” Resilient Wedge Gate Valve | 10 | EA | $ _____ | $ _____ |
| | | | | $ _____ Written | |

| No. | Item | Quantity | Units | Unit Cost | Total Cost |
|---|---|---|---|---|---|
| 14 | 6" Fire Hydrant Assembly **(Optional Item)** | 7 | EA | $ _____ <br> $ _____ Written | $ _____ |
| 15 | 2" Flushout Assembly | 5 | EA | $ _____ <br> $ _____ Written | $ _____ |
| 16 | Manual Air Release Valve Assembly | 18 | EA | $ _____ <br> $ _____ Written | $ _____ |
| 17 | Standard Water Service | 30 | EA | $ _____ <br> $ _____ Written | $ _____ |
| 18 | Tie-In to Existing Water Main | 1 | EA | $ _____ <br> $ _____ Written | $ _____ |
| 19 | Seeding | 1,020 | LF | $ _____ <br> $ _____ Written | $ _____ |
| 20 | Final Trench Backfill and Cleanup | 1,020 | LF | $ _____ <br> $ _____ Written | $ _____ |

| No. | Item | Quantity | Units | Unit Cost | Total Cost |
|---|---|---|---|---|---|
| 21 | Watermain Testing | 19,160 | LF | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 22 | Construction Audio-Video Recording | 1 | LS | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 23 | Maintenance of Traffic | 1 | LS | $ _____ | $ _____ |
| | | | | $ _____ Written | |
| 24 | Mobilization | 1 | LS | $ _____ | $ _____ |
| | | | | $ _____ Written | |

**TOTAL AMOUNT PART B: ALT NO. 1** _____ Written $ _____

*(Amounts are to be shown in both words and figures. In case of discrepancy, the amount in words will govern.)*

The above unit prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

**It is the intent of the OWNER to award a Contract to the lowest and best BIDDER provided the BID has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The OWNER shall have the right to waive informalities and irregularities in a BID received and to accept the BID which, in the OWNER'S judgment, is in the OWNER'S best interests.**

7. BIDDER understands that the OWNER reserves the right to reject any or all BIDS and to waive any informality in the BIDDING.

8. The following documents are attached to and made a condition of this Bid:

   (a) Forms Found in **Document 00305** (After Bid Form)
   - i) Required Bid Guaranty in the form of Bid Bond or Certified Check

   (b) Forms Below found in **Document 00310** (After Bid Guaranty Bond):
   - i) Contractor Equal Employment Opportunity (EEO) Certification
   - ii) Certification Regarding Debarment
   - iii) Disadvantaged Business Enterprises (DBE) Utilization –EPA Forms 6100-2, 6100-3 & 6100-4
   - iv) American Iron and Steel Acknowledgement
   - v) Build America Buy America Acknowledgment
   - vi) Byrd Anti-Lobbying Certification
   - vii) Certificate of Compliance with Federal Labor Standards Provisions
   - viii) Certification of Compliance with Air and Water Acts

9. Communications concerning this BID shall be addressed to:

   The address of BIDDER indicated below.

10. The terms used in this BID which are defined in the GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT included as part of the CONTRACT DOCUMENTS have the meanings assigned to them in the GENERAL CONDITIONS.

SUBMITTED ON _____, 20_____.

RESPECTFULLY SUBMITTED:

BIDDER: _____

BY: _____

TITLE: _____

BUSINESS ADDRESS:

_____

PHONE: _____

Bidder Is:

An Individual

By (Individual's Name) _____

doing business as _____

Business Address _____

Phone No. _____

A Partnership

By (Firm Name) _____

General Partner _____

Business Address _____

Phone No. _____

A Corporation

By (Corporation Name)_____

State of Incorporation _____

By (Authorized Signatory)_____

Title_____

(Corporate Seal)

Attest (Secretary) _____

Business Address _____

Phone No. _____

A Joint Venture

By (Name)_____

Business Address _____

By (Name)_____

Business Address _____

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

B. Section 01701 – Contract Closeout Procedures.

1.03 CONTRACT DESCRIPTION

A. Definitions:
1. OWNER: Muskingum County Commissioners
2. UTILITY OWNER: Muskingum County Water and Sewer District
3. ENGINEER: Muskingum County Engineer's Office

B. Work of this Contract comprises the construction of the WATER MAIN EXTENSIONS to DOZER RIDGE ROAD, JOHNSON HILL ROAD, MOODY HOLLOW ROAD, PLETCHER HILL ROAD, TWYMAN HILL ROAD, AND STAKER HILL ROAD located in Brush Creek Township, Muskingum County, Ohio, for the Muskingum County Commissioners, Muskingum County Water and Sewer District, OWNER.

C. Perform Work under a single **UNIT PRICE CONTRACT** with the OWNER in accordance with CONDITIONS OF CONTRACT.

1.04 UNIT PRICE CONTRACT

This shall be a **UNIT PRICE CONTRACT** for the installation of approximately 19,160 linear feet of water main which includes 7,218 linear feet of 3-inch PVC water main installed by open trench methods, 450 linear feet of 3-inch HDPE water main installed by horizontal directional drilling, 191 linear feet of 4-inch PVC water main installed by open trench methods, 402 linear feet of 4-inch HDPE water main installed by horizontal directional drilling, 8,871 linear feet of 6-inch PVC water main installed by open trench methods, 2,028 linear feet of 6-inch HDPE water main installed by horizontal directional drilling, four (4) 3-inch gate valves, one (1) 4-inch gate valve, ten (10) 6-inch gate valves, seven (7) 6-inch fire hydrant assemblies **(optional item)**, 5 flushout assemblies, 18 manual air release assemblies, 30 customer service connections (25 standard meter settings and 5 tandem meter settings), 531 linear feet of service tubing (363 linear feet directionally drilled), 1 tie-in to the existing water distribution system, and other appurtenances necessary to complete **WATER MAIN EXTENSIONS TO DOZER RIDGE ROAD, JOHNSON HILL ROAD, MOODY HOLLOW ROAD, PLETCHER HILL ROAD, TWYMAN HILL ROAD, AND STAKER HILL ROAD** as specified herein and shown on the CONSTRUCTION DRAWINGS.

Or alternatively, a **UNIT PRICE CONTRACT** for the installation of approximately 19,160 linear feet of water main which includes 7,668 linear feet of 3-inch HDPE water main installed by horizontal directional drilling, 593 linear feet of 4-inch HDPE water main installed by horizontal directional drilling, 10,899 linear feet of 6-inch HDPE water main installed by horizontal directional drilling, four (4) 3-inch gate valves, one (1) 4-inch gate valve, ten (10) 6-inch gate valves, seven (7) 6-inch fire hydrant assemblies **(optional item)**, 5 flushout assemblies, 18 manual air release assemblies, 30 customer service connections (25 standard meter settings and 5 tandem meter settings), 531 linear feet of service tubing (363 linear feet directionally drilled), 1 tie-in to the existing water distribution system, and other appurtenances necessary to complete **WATER MAIN EXTENSIONS TO DOZER RIDGE ROAD, JOHNSON HILL**

**ROAD, MOODY HOLLOW ROAD, PLETCHER HILL ROAD, TWYMAN HILL ROAD, AND STAKER HILL ROAD** as specified herein and shown on the CONSTRUCTION DRAWINGS.

## 1.05 WORK BY OWNER

A. **Not applicable to this Contract**.

## 1.06 WORK BY OTHERS

A. **Not applicable to this Contract**.

## 1.07 CONTRACTOR'S USE OF PREMISES

A. **EXCEPT AS SPECIFICALLY NOTED, EXISTING FACILITIES ARE TO REMAIN FUNCTIONAL THROUGHOUT THE WORK OF THIS PROJECT.**

B. Coordinate use of premises under direction of OWNER and ENGINEER.

C. Limit use of premises to allow:
   1. OWNER occupancy.
   2. Work by others and by OWNER.
   3. Use of adjacent premises by public.

D. Coordinate Work which is anticipated to require, or result in a service disruption with Water System Owner, at least 48-hours prior to start of Work.

E. Allow OWNER to maintain system operation and water service to existing water customers throughout Work of this Project. Do not disrupt water distribution system operation for more than an 8-hour period in a single day. Schedule service disruptions to allow OWNER to replenish system storage between disruptions.

F. Assume full responsibility for protection and safekeeping of products under individual contract.

G. During work, assume full responsibility for protection and safekeeping OWNER'S property to remain.

H. If existing utilities are damaged by construction activities, accommodate utility owner's requirements to facilitate repairs.

## 1.08 FUTURE WORK

A. **Not applicable to this Contract**.

## 1.09 SPECIFICATION CONVENTIONS

A. These Specifications are written in imperative mood and streamlined form. This imperative language is directed to the CONTRACTOR, unless specifically noted

otherwise. The words “shall be” are included by inference where a colon (:) is used within sentences or phrases.

## 1.10 CASH ALLOWANCES

A. **Not applicable to this Contract**.

## 1.11 CONTINGENCY ALLOWANCES

A. **Not applicable to this Contract**.

## 1.12 TESTING AND INSPECTION ALLOWANCES

A. **Not applicable to this Contract**.

## 1.13 SCHEDULE OF VALUES

A. For each LUMP SUM BID ITEM submit schedule on CONTRACTOR's standard form or electronic media printout, approved by Funding Agency and ENGINEER.

B. Submit schedule on CONTRACTOR's standard form or electronic media printout, approved by Funding Agency and ENGINEER.

C. List installed value of each major item of work and each subcontracted item of work as a separate line item to serve as a basis for computing values for Progress Payments. For items on which payments will be requested for stored products, list sub-values for cost of stored products with taxes paid. The sum of values listed shall equal BID ITEM sum.

D. Submit **SCHEDULE OF VALUES** in triplicate within 15 days after date established in NOTICE TO PROCEED.

E. Submit revised PROGRESS SCHEDULES as necessary:
   1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
   2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.

F. Distribute copies of reviewed Schedules to job site file, subcontractors, suppliers, and other concerned entities. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in Schedules.

## 1.14 APPLICATIONS FOR PAYMENT

A. Submit four copies of each application on ENGINEER and FUNDING AGENCY approved Form.

B. Content and Format: Utilize **SCHEDULE OF VALUES** or **BID FORM**, as applicable, for listing items in APPLICATION FOR PAYMENT.

**C. Payment Period: Monthly.**

1.15 CHANGE PROCEDURES

A. ENGINEER may submit a proposal request which includes: Detailed description of change with supplementary or revised drawings and specifications, the projected time for executing the change, with a stipulation of any overtime work required, and the period of time during which the requested price will be considered valid.

B. CONTRACTOR may initiate a change by submittal of a request to ENGINEER describing the proposed change with a statement of the reason for the change, and the effect on contract sum and contract time with full documentation.

C. Document each quotation for a change in cost or time with sufficient data to allow evaluation of the quotation.
   1. On request, provide additional data to support computations:
      a. Quantities of products, labor, and equipment.
      b. Taxes, insurance and bonds.
      c. Overhead and profit.
      d. Justification for any change in contract time.
      e. Credit for deletions from contract, similarly documented.
   2. Support each claim for additional costs, and for work done on a time and material basis, with additional information:
      a. rigin and date of claim.
      b. Dates and times work was performed, and by whom.
      c. Time records and wage rates paid.
      d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.

D. ENGINEER will prepare each **CHANGE ORDER**.
   1. LUMP SUM/FIXED PRICE CHANGE ORDER: Based on Proposal Request and CONTRACTOR'S fixed price quotation or CONTRACTOR'S request for **CHANGE ORDER** as approved by ENGINEER.
   2. UNIT PRICE CHANGE ORDER: Based on Proposal Request and CONTRACTOR'S unit price quotations with quantities determined by ENGINEER.

E. Change Order Forms: ENGINEER'S Form.

1.16 UNIT PRICES

A. Under provisions of Section 01025 (MEASUREMENT AND PAYMENT).

1.17 ALTERNATES

A. **Not applicable to this Contract.**

1.18 MATERIAL PROCUREMENT PROCEDURE

A. **Not applicable to this Contract.**

1.19 COORDINATION

A. **ALL EXISTING FACILITIES ARE TO REMAIN FUNCTIONAL THROUGHOUT THE WORK OF THIS PROJECT.**

B. Coordinate scheduling, submittals, and Work of various Sections of specifications to ensure
efficient and orderly sequence of installation of interdependent construction elements.

C. Verify utility requirement characteristics of operating equipment are compatible with building utilities. Promptly notify ENGINEER of scheduling conflicts which affect Work.

D. Coordinate work affecting existing facilities with OWNER. Provide proposed work schedule at least 72 hours prior to beginning any work which would disrupt OWNER'S existing system. Schedule shall describe procedures and timing, manpower, equipment, and contingency plans.

E. Allow continued access for OTHERS having jurisdiction at each site. Coordinate scheduling with their operation requirements. Owner's REPRESENTATIVE shall act as liaison with OTHERS.

F. Do **NOT** schedule a disruption of OWNER'S operations to occur on CONTRACTOR'S first or last scheduled workday of any week.

G. During interruptions of OWNER'S operations resulting from CONTRACTOR'S work, CONTRACTOR shall accommodate OWNER'S requirements to maintain service to customers. During scheduled or unscheduled service interruption, CONTRACTOR shall not discontinue work until facilities can be returned to service.

H. Verify utility requirement characteristics of operating equipment are compatible with building utilities.

I. Promptly notify owner of existing utilities which are damaged by construction activities. Accommodate utility owner's requirements to facilitate repairs.

J. Coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on CONSTRUCTION DRAWINGS. Follow routing shown for pipes, ducts, and conduit, as closely as practicable.

K. In finished areas, conceal pipes, ducts, and wiring within construction.

L. Tie-Ins: Except as specifically approved by UTILITY OWNER, CONTRACTOR shall not schedule tie-in until new main is ready to place into service (pressure tested, disinfected, and flushed).

1. CONTRACTOR remains responsible for **CONTRACT PROVISIONS** which include workplace
   safety, traffic control, and dewatering of work area.
2. Coordinate Work to facilitate UTILITY OWNER'S final tie-in requirements.
   a. Expose the existing pipe and provide all materials required for tie-in on-site.
   b. Final tie-in work shall not commence until UTILITY OWNER is satisfied that the necessary materials are present on site.
3. Cut-into, or otherwise open existing main, disinfect (swab) pipe and appurtenances required for final tie-in, and make final connection to existing water main.

## 1.20 FIELD ENGINEERING

A. ENGINEER'S Responsibility is limited to:
   1. Vertical and horizontal control points with elevations and coordinates within Project Area; sufficient to allow Contractor's Surveyor to layout Work. Control points are shown on CONSTRUCTION DRAWINGS.
   2. Designated centerlines for cross-country pipeline routes, ***ONLY WHERE OFFSET DIMENSIONS OR HORIZONTAL CONTROL POINTS ARE <u>NOT</u> SHOWN ON CONSTRUCTION DRAWINGS.***

B. CONTRACTOR'S Responsibility:
   1. Where CONTRACTOR requires stakeout information from ENGINEER, provide a tentative stakeout schedule corresponding to PROGRESS SCHEDULE.
      a. Make a written request, seven days prior to time required, for construction stakeout by line designation and location.
   2. Employ experienced instrument technician to locate reference datum and protect survey control and reference points.
   3. Establish elevations, lines, and levels and certify elevations and locations of the Work conform with CONTRACT DOCUMENTS.
   4. Preserve and/or reference all monuments, pins, stakes, posts, etc. marking the corners or boundaries of Project or private boundaries.
      a. Bear the cost of property surveys to reset lost markers.
      b. Reference and/or replace all property corners by a PROFESSIONAL SURVEYOR registered in the state where work of Project occurs.
   5. Verify field measurements are as indicated on SHOP DRAWINGS or as instructed by manufacturer.
   6. Provide stakeout required for each structure location from information or dimensions provided by ENGINEER on CONSTRUCTION DRAWINGS.
   7. Provide stakeout required to maintain pipeline route alignment, offsets, and specified grades from information or dimensions provided by ENGINEER on CONSTRUCTION DRAWINGS.
   8. **Construction As-Built Surveys**: Provide as-built reference dimensions of all vertical and horizontal bends, valves, flushouts, fire hydrants, air and air/vacuum releases, details of special construction, service connections, limits of steel casing and concrete encasement, changes in grade and utility crossings and all other hidden and/or underground Work.

## 1.21 WORK SEQUENCE

A. Construct work in stages to accommodate OWNER'S occupancy requirements during the construction period. Coordinate Construction Schedule and operations with OWNER and ENGINEER.

B. Allow OWNER to maintain system operation to provide water service to existing water customers throughout Work of this Project.

C. Allow Utility personnel to continue day-to-day operations at each site.

D. Work shall include all necessary provisions to maintain water service (or to provide temporary alternate service) to all existing customers throughout Work; except during OWNER approved pre-scheduled periods.

## 1.22 MEETINGS – PRECONSTRUCTION, PROGRESS AND PRE-INSTALLATION

A. ENGINEER will schedule PRECONSTRUCTION MEETING after NOTICE OF AWARD for affected parties.
   1. Agenda:
      a. Execution of OWNER-CONTRACTOR AGREEMENT.
      b. Distribution of CONTRACT DOCUMENTS.
      c. Submittal of list of subcontractors, list of products, and progress schedule.
      d. Designation of responsible personnel.
      e. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal requests, change orders, and Contract closeout procedures.
      f. Scheduling.

B. ENGINEER will schedule PROGRESS MEETINGS throughout progress of the Work as required.
   1. Location of Meetings: OWNER'S office @ 375 Richards Road, Zanesville, OH 43701
   2. Attendance: CONTRACTOR, job superintendent, subcontractors, and suppliers as appropriate to agenda; OWNER, ENGINEER and professional consultants may attend as appropriate.
   3. Minimum Agenda:
      a. Approval of minutes of previous meetings.
      b. Review of Work progress.
      c. Field observations, problems, and decisions.
      d. Identification of problems which impede planned progress.
      e. Review of submittals schedule and status of submittals.
      f. Review of off-site fabrication and delivery schedules.
      g. Maintenance of PROGRESS SCHEDULE.
      h. Corrective measures to regain projected schedules.
      i. Planned progress during succeeding work period.
      j. Coordination of projected progress.
      k. Maintenance of quality and work standards.
      l. Effect of proposed changes on progress schedule and coordination.
      m. Other business relating to work.

C. OWNER will preside at meetings; record minutes and distribute copies to those affected by decisions made.

D. When required in individual specification Section, CONTRACTOR shall convene pre-installation meeting at Project site prior to commencing work of Section.

1.23 EQUIPMENT ELECTRICAL CHARACTERISTICS AND COMPONENTS

A. **Not applicable to this Contract**.

1.24 CUTTING AND PATCHING

A. Employ skilled and experienced installer to perform cutting and patching new Work; restore Work with new Products.

B. Submit written request in advance of cutting or altering structural or building enclosure elements.

C. Inspect existing conditions, including elements subject to damage or movement during cutting
and patching. Beginning of cutting or patching means acceptance of existing conditions.

D. Provide supports as determined necessary by ENGINEER to assure structural integrity of surroundings; devices and methods to protect other portions of project from damage.

E. Provide protection from elements for areas which may be exposed by work; maintain excavations free of water.

F. Execute cutting, fitting, and patching including excavation and fill, to complete Work, and to:

1. Fit several parts together, to integrate with other Work.
2. Uncover Work to install or correct ill-timed Work.
3. Remove and replace defective and non-conforming Work.
4. Remove samples of installed Work for testing.
5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.

G. Cut masonry and concrete materials using masonry saw or core drill. Restore Work with new Products in accordance with requirements of CONTRACT DOCUMENTS.

H. Fit Work tight to adjacent elements. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.

I. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

1.25 SUBMITTAL PROCEDURES

A. Deliver submittals to OWNER at address designated in Document 00100 (INSTRUCTIONS FOR BIDDERS), except as directed by OWNER.

B. Comply with PROGRESS SCHEDULE for submittals related to Work progress. Coordinate submittal of related items.

C. Transmit each item under ENGINEER-accepted form. Identify Project, CONTRACTOR, subcontractor, and major supplier; identify pertinent Drawing sheet and detail number, and Specification Section number, as appropriate. Identify deviations from CONTRACT DOCUMENTS. Provide space for CONTRACTOR and ENGINEER review stamps.

D. Apply CONTRACTOR's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and CONTRACT DOCUMENTS.

E. Identify variations from CONTRACT DOCUMENTS and Product or system limitations which may be detrimental to successful performance of completed Work.

F. After ENGINEER review of submittal, revise and resubmit as required, identifying changes made since previous submittal.

G. Revise and resubmit submittals as required; identify changes made since previous

submittal. 1.26 CONSTRUCTION PROGRESS SCHEDULES

A. Submit initial **PROGRESS SCHEDULE** in duplicate within 15 days after date established in **NOTICE TO PROCEED** for ENGINEER review.
B. Submit revised schedules with each **APPLICATION FOR PAYMENT**, identifying changes since previous version. Indicate estimated percentage of completion for each item of Work at each submission.
C. Submit horizontal bar chart with separate line for each major Section of Work or operation, identifying first workday of each week.

## 1.27 PROPOSED PRODUCTS LIST

A. Within 15 days after the date of **NOTICE TO PROCEED**, submit list of major Products proposed for use, with name of manufacturer, trade name, and model number of each product.

## 1.28 SHOP DRAWINGS AND PRODUCT DATA

A. Review submittals prior to transmittal; determine and verify field measurements, field construction criteria, manufacturer's catalog numbers, and conformance of submittal with requirements of CONTRACT DOCUMENTS.

B. Submitted to ENGINEER for review for limited purpose of checking for conformance with information given and design concept expressed in CONTRACT DOCUMENTS.

C. Submit number of copies which CONTRACTOR requires, plus three copies which will be retained by ENGINEER. ENGINEER will disburse two copies to OWNER, and maintain one copy for ENGINEER'S Project File.

D. Product Data: Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to this project.

E. Shop Drawings: Identify field dimensions; show relation to adjacent or critical features or Work or products.

F. When required by individual specification Sections, provide Shop Drawings signed and sealed
by Professional Engineer responsible for designing components shown on Shop Drawings.
   1. Include signed and sealed calculations to support design.
   2. Submit drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
   3. Make revisions and provide additional information when required by authorities having jurisdiction.

## 1.29 SAMPLES

A. **Not applicable to this Contract**.

## 1.30 MANUFACTURER'S INSTRUCTIONS

A. When specified in individual specification Sections, submit manufacturer printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.

B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

## 1.31 MANUFACTURER'S CERTIFICATES

A. When specified in individual specification Sections, submit certifications by manufacturer to ENGINEER, in quantities specified for Product Data.

B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

## 1.32 QUALITY CONTROL

A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturer's instructions.

C. Comply with specified standards as minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

## 1.33 TOLERANCES

A. Monitor fabrication and installation tolerance control of installed Products over suppliers, manufacturers, Products, site conditions, and workmanship, to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply fully with manufacturer's tolerances.

## 1.34 REFERENCES

A. Conform to reference standards by date of issue current as of date for receiving bids.

B. When specified reference standard conflict with CONTRACT DOCUMENTS, request clarification from ENGINEER before proceeding.

## 1.35 LABELING

A. Attach label from agency approved by authority having jurisdiction for products, assemblies, and systems required to be labeled by applicable code.

B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label.
   1. Model number.
   2. Serial number.
   3. Performance characteristics.

## 1.36 TESTING AND INSPECTION LABORATORY SERVICES

A. OWNER will appoint, employ, and pay for specified services of independent firm to perform testing and inspection.

B. Independent firm will perform tests, inspections, and other services as required.

C. Cooperate with independent firm; furnish samples as requested.
   1. Notify ENGINEER and Testing Laboratory 24 hours prior to expected time for operations requiring testing services.

D. Make arrangements with Testing Laboratory and pay for additional samples and tests for CONTRACTOR'S convenience.

E. Re-testing required because of non-conformance to specified requirements will be charged to CONTRACTOR.

## 1.37 MANUFACTURER'S FIELD SERVICES AND REPORTS

A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to furnish qualified staff personnel to observe site conditions and to initiate instructions when necessary.

B. Report observations and site decisions or instructions that are supplemental or contrary to manufacturer's written instructions.

## 1.38 EXAMINATION

A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.

B. Verify utility services are available, of correct characteristics, and in correct

location. 1.39 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.

B. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

## 1.40 TEMPORARY ELECTRICITY

A. Provide temporary electricity and power outlets for construction operations, connections, branch wiring, distribution boxes, and flexible power cords as required. Do not disrupt OWNER's need for continuous service.

## 1.41 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

A. Provide temporary lighting as required for construction operations.

## 1.42 TEMPORARY HEATING AND COOLING

A. Provide heating and cooling devices as needed to maintain specified conditions for construction operations and to protect materials and finishes from damage due to temperature or humidity.

## 1.43 TEMPORARY VENTILATION

A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

## 1.44 TEMPORARY WATER SERVICE

A. Provide service required for construction operations.

B. Refer to Section 02676 (CLEANING, PRESSURE TESTING AND DISINFECTION) for water main disinfection and flushing requirements, as applicable.

## 1.45 TEMPORARY SANITARY FACILITIES

A. Provide and maintain required facilities and enclosures. Maintain in clean and sanitary condition. 1.46 FIELD OFFICES AND SHEDS

A. ENGINEER'S field office: **NONE REQUIRED.**

B. CONTRACTOR'S field office: CONTRACTOR'S option.
   1. Size: For CONTRACTOR'S needs and to provide space for project meetings.
   2. Furnishings in Meeting Area: Conference table and chairs for at least eight persons; racks and files for CONTRACT DOCUMENTS, SUBMITTALS and PROJECT RECORD DOCUMENTS.
   3. Heating, Cooling, and Ventilating of Offices: Automatic equipment to maintain comfortable conditions.

C. Storage sheds: CONTRACTOR'S option. Size to storage requirements for products of individual Sections, allowing for access and orderly provision for maintenance and for inspection of products.

1.47 ACCESS ROADS AND PARKING

A. Existing on-site roads may be used for construction traffic. Restore damage resulting from construction activities at conclusion of Work.

B. Arrange for temporary parking areas to accommodate construction personnel.

1.48 PROGRESS CLEANING AND WASTE REMOVAL

A. Collect and maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.

1.49 PROJECT IDENTIFICATION

A. **Not applicable to this Contract**.

1.50 FIRE PREVENTION FACILITIES

A. Portable Fire Extinguishers: NFPA 10; 10-pound capacity, 4A-60B:C UL rating.
   1. Provide minimum one fire extinguisher in every construction trailer and storage shed.

1.51 BARRIERS AND FENCING

A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage.

B. Provide barricades and walkways as required by governing authorities for public rights-of-way and for public access to existing buildings.

C. Provide barriers around trees, plants and structures designated to remain. Protect against vehicular traffic, stored materials, dumping, chemically injurious materials, and puddling or continuous running water.

D. Construction: CONTRACTOR'S option.

1.52 PROTECTION OF INSTALLED WORK

A. Protect installed Work and provide special protection where specified in individual specification Sections.

1.53 SECURITY

A. Provide security and facilities to protect Work and existing facilities, and OWNER's operations from unauthorized entry, vandalism, or theft.

1.54 NOISE CONTROL

A. Comply with all federal, state and local laws and regulations concerning noise control.
B. Execute work between the hours of 7 a.m. and 7 p.m. local time, unless written permission for night work is obtained from the OWNER.

1.55 WATER CONTROL

A. Maintain excavations free of water. Provide, operate, and maintain pumping equipment. Dispose of drainage water in a manner to prevent flooding, erosion, or other damage to any portion of the site or to adjoining areas.

B. Do not discharge drainage water into municipal sewers without municipal approval. Ensure water discharge does not contain silt held in suspension.

C. Direct surface drainage away from excavated areas.

D. Provide erosion control.

1.56 POLLUTION AND ENVIRONMENTAL CONTROL

A. **CONTRACTOR is responsible** for methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.

B. Provide dust control, erosion and sediment control, noise control, pest control and rodent control to allow for proper execution of the Work.

C. Provide equipment and personnel, perform emergency measures required to contain any spillages, and to remove contaminated soils or liquids.
   1. Excavate and dispose of any contaminated earth offsite, and replace with suitable compacted fill and topsoil.

D. Take special measures to prevent harmful substances from entering public waters.

1. Prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to
streams, or in sanitary or storm sewers.

E. Provide systems for control of atmospheric pollutants.
1. Prevent toxic concentrations of chemicals.
2. Prevent harmful dispersal of pollutants into the atmosphere.

F. Coordinate SWP3 (Storm Water Pollution Prevention Plan) and regulatory agency's BMPs (Best Management Practices) to establish methods and procedures for pollution and erosion control.

G. **Temporary Stabilization:** All disturbed areas that will lie dormant for over 21 days must be stabilized within seven days of the date the area becomes inactive. The goal of temporary stabilization is to provide cover, quickly. Areas within 50 feet of a stream must be stabilized within two days of inactivity. This is accomplished by seeding with fast-growing grasses then covering with straw mulch. Apply only mulch between November 1 and March 31. To minimize costs of temporary stabilization, leave natural cover in place for as long as possible. Only disturb areas where work is intended within the next 21 days. **OEPA has identified this as the most effective BMP.**

H. Plan and execute construction and earthwork by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation.

I. Prior to initiating earthwork or trench excavations, submit a plan for approval showing methods to be taken to control erosion and sedimentation.

J. Construct and maintain temporary erosion control facilities during the period of construction. Such facilities may consist of culverts for stream crossings, culverts or bridges for equipment crossings of stream channels, diversionary site maintenance programs, straw bale diversions and sediment filters, sedimentation ponds, etc.

K. In all cases hold areas of bare soil exposed at one time to a minimum.

L. Construct fills and waste areas by selective placement to eliminate surface silts or clays which will erode.

M. Periodically inspect earthwork to detect any evidence of the start of erosion, apply corrective measures as required to control erosion.

## 1.57 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, and materials, prior to SUBSTANTIAL COMPLETION.

B. Remove underground installations to minimum depth of 2 feet. Grade site as indicated on CONSTRUCTION DRAWINGS.

C. Clean and repair damage caused by installation or use of temporary work.

D. Restore existing facilities used during construction to their original condition. Restore permanent facilities used during construction to specified condition.

## 1.58 PRODUCTS

A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components specifically identified for reuse.

B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by the CONTRACT DOCUMENTS.

C. Provide interchangeable components of same manufacture for components being

replaced. 1.59 DELIVERY, HANDLING, STORAGE, AND PROTECTION

A. Deliver, handle, store, and protect Products in accordance with manufacturer's instructions.

## 1.60 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit request for substitution for manufacturers not named.

C. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, **no options or substitutions allowed**.

## 1.61 SUBSTITUTIONS

A. **INSTRUCTIONS TO BIDDERS** or **INFORMATION FOR BIDDERS** (as applicable) specify time for submitting requests for Substitutions during bidding period to requirements specified in this Section. ENGINEER will record acceptable substitutions by **ADDENDA**.

1. When times for substitution requests are not identified elsewhere, substitution requests will be considered by ENGINEER up to 14 days before receipt of Bids.

B. After bidding period, ENGINEER will consider requests for Substitutions only within 30 days after date of **OWNER-CONTRACTOR AGREEMENT**. Subsequent requests will only be considered when Product becomes unavailable through no fault of CONTRACTOR.

C. Document each request with complete data substantiating compliance of proposed Substitution with CONTRACT DOCUMENTS.

D. Substitutions will **NOT** be considered when only indicated on SHOP DRAWINGS or PRODUCT DATA submittals without separate formal request; when requested directly

by subcontractor or supplier; or when acceptance will require substantial revision of CONTRACT DOCUMENTS.

E. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.

F. Request for substitution constitutes a representation that CONTRACTOR has investigated proposed product and has determined that it is equal to or superior in all respects to specified product or that the cost reduction offered is ample justification for accepting the offered substitution.
   1. CONTRACTOR waives claims for additional costs related to substitution which may later become apparent.

G. Identify product by Specifications SECTION and Article numbers. Provide manufacturer's name and address, trade name of product, and model or catalog number. List fabricators and suppliers as appropriate.
   1. Give itemized comparison of proposed substitution with specified product, listing variations, and reference to Specifications Section and Article numbers.
   2. Give quality and performance comparison between proposed substitution and the specified product.
   3. Give cost data comparing proposed substitution with specified product, and amount of net change to Contract Sum.
   4. List availability of maintenance services and replacement materials.

H. Substitute products shall not be ordered or installed without written acceptance. 1.62 CLOSEOUT PROCEDURES

A. Under provisions of Section 01701 (CONTRACT CLOSEOUT PROCEDURES). 1.63 FINAL CLEANING

A. Execute final cleaning prior to final inspection.

B. Clean interior and exterior surfaces exposed to view.

C. Clean debris from site and drainage systems.

D. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.64 STARTING OF SYSTEMS

A. **Not applicable to this Contract**.

1.65 DEMONSTRATION AND INSTRUCTIONS

A. **Not applicable to this Contract**.

## 1.66 TESTING, ADJUSTING, AND BALANCING

A. **Not applicable to this Contract**.

## 1.67 PROTECTING INSTALLED CONSTRUCTION

A. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

## 1.68 PROJECT RECORD DOCUMENTS

A. Maintain on site one set of CONTRACT DOCUMENTS to be utilized for **RECORD DOCUMENTS**.

B. Record actual revisions to the Work. Record information concurrent with construction progress.

C. Specifications: Legibly mark and record at each Product Section description of actual Products installed.

D. Record Documents and Shop Drawings: Legibly mark each item to record actual construction.

E. Submit documents to ENGINEER with claim for final **APPLICATION FOR PAYMENT**.

## 1.69 OPERATION AND MAINTENANCE DATA

A. Submit two sets prior to final inspection, bound in 8-1/2 x 11-inch text pages, three D-side-ring binders with durable covers.

B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS" and title of project.

C. Internally subdivide binder contents with permanent page dividers, logically organized, with tab titles legibly printed under reinforced laminated plastic tabs.

D. Contents:
   1. Part 1: Directory, listing names, addresses, and telephone numbers of ENGINEER, CONTRACTOR, subcontractors, and major equipment suppliers.
   2. Part 2: Operation and maintenance instructions, arranged by system.
   3. Part 3: Project documents and certificates.

## 1.70 SPARE PARTS AND MAINTENANCE MATERIALS

A. Provide quantities of products, spare parts, maintenance tools, and maintenance materials specified in individual Sections to be provided to OWNER, in addition to that required for completion of Work.

B. Products: Identical to those installed in the Work. Include quantities in original purchase from supplier to avoid variations in manufacture.

C. Maintain spare products in original containers with labels intact and legible, until delivery to OWNER.

1.71 WARRANTIES

A. Provide duplicate notarized copies.

B. Execute and assemble transferable warranty documents from subcontractors, suppliers, and manufacturers.
   1. Verify that documents are in proper form, contain full information, and are notarized.
   2. Co-execute submittals when required.

C. Bind in commercial quality 8-1/2 x 11 inch three-ring side binders, with hardback, cleanable, plastic covers.
   1. Label cover of each binder with typed or printed title **"WARRANTIES AND BONDS,"** with title of Project; name, address and telephone number of CONTRACTOR; and name of responsible principal.
   2. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification Section in which specified, and the name of Product or work item.
   3. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List sub-contractor, supplier, and manufacturer, with name, address, and telephone number of responsible party.

D. Submit prior to final **APPLICATION FOR PAYMENT**.

PART 1 PRODUCTS

Not Used.

PART 2 EXECUTION

Not Used.

END OF SECTION