



City of Rockville  
Rockville, Maryland

## INVITATION FOR BIDS #01-22

# WATER MAIN REHABILITATION PROGRAM, WATER METER REPLACEMENT AND EMERGENCY UTILITY REPAIRS

**Bids Due by 2:00 P.M., Thursday, December 29, 2022**

ISSUED BY:

TJ Ellison, CPPB  
Procurement Division  
City of Rockville, City Hall  
111 Maryland Avenue  
Rockville, Maryland 20850  
Phone: (240) 314-8430  
Fax: (240) 314-8439

### **A 5% Bid Bond is required for this Invitation for Bid**

Any individual with a disability who would like to receive the information in this publication in another form may contact the ADA Coordinator at 240-314-8100, TDD 240-314-8137

#### **MFD-V Outreach Program**

**It is the intent of the City of Rockville to increase opportunities for minority, female, disabled, or veteran (MFD-V) owned businesses to compete effectively at supplying goods, equipment, and services to the City, within the constraints of statutory purchasing requirements, departmental needs, availability, and sound economical considerations. Suggested changes and MFD-V enhancements to this solicitation's requirements for possible consideration and/or inclusion in future solicitations are encouraged. Any questions regarding MFD-V outreach or questions/concerns regarding the City's bidding process should be addressed to Pat Ryan, [pryan@rockvillemd.gov](mailto:pryan@rockvillemd.gov) or 240-314-8434.**

## TABLE OF CONTENTS

Section	Contents
I	Announcement, Description and General Information
II	General Terms, Conditions, and Instructions to Bidders
III	Special Provisions
IV	Technical Specifications
V	Bid Proposal Forms and Sample Documents
VI	<ul style="list-style-type: none"> <li>A. 5-year Schedule for the Water Main Rehabilitation Program</li> <li>B. Map showing 5-year schedule: Water Main Rehabilitation Program</li> <li>C. As-built Plan Requirements</li> <li>D. Sediment Control – Rockville Standards</li> <li>E. Water and Sewer Notes</li> <li>F. Montgomery County Noise Ordinance</li> <li>G. WSSC Standard Specification Section 02511 “Chlorination Water System”</li> <li>H. WSSC Standard Specification Section 01330 “Submittal Procedure”</li> <li>I. WSSC Standard Specification Section 01450 “Quality Control”</li> <li>J. Pavement Restoration Details</li> <li>K. WSSC Standard Specification Section 02510 and 02512 “Temporary by-Pass Water Piping”</li> <li>L. Water Main Rehab, Project Example #1: Elizabeth Avenue Design</li> <li>M. Water Main Rehab, Project Example #2: Montrose Neighborhood Design</li> <li>N. Water Main Rehab, Project Example #3: Denfield Road Design</li> <li>O. General Discharge Permit No. 17HT</li> <li>P. Water Meter Replacement – Meter Size Quantities</li> <li>Q. Preliminary Water Meter Replacement Schedule</li> </ul>



## Statement of "No Bid Submittal"

If you do not intend to submit on this requirement, please complete and return this form prior to date shown for receipt of bids to the buyer listed in this IFB by **email only to [tellison@rockvillemd.gov](mailto:tellison@rockvillemd.gov)**.

I/WE HAVE DECLINED TO BID ON **IFB #01-22**, titled **WATER MAIN REHABILITATION PROGRAM, WATER METER REPLACEMENT AND EMERGENCY UTILITY REPAIRS** for the following reason(s): [Please place a check mark (✓) next to the reason(s) as applicable]

(✓)	Reason
<input checked="" type="checkbox"/>	Proposal requirements too "restrictive".
<input type="checkbox"/>	Insufficient time to respond to the Invitation for Bids.
<input type="checkbox"/>	We do not offer this service.
<input type="checkbox"/>	Our schedule would not permit us to perform.
<input type="checkbox"/>	Unable to meet requirements.
<input type="checkbox"/>	Unable to meet insurance or bond requirements.
<input type="checkbox"/>	Scope of Services unclear (please explain below).
<input type="checkbox"/>	Other (please specify below).

REMARKS:

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Are you a Minority, Female, Disabled or Veteran-Owned (MFD-V) business? \_\_\_\_\_ Yes \_\_\_\_\_ No

Company Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

\_\_\_\_\_  
Authorized Signatory

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date



**CITY OF ROCKVILLE  
ROCKVILLE, MARYLAND**

**INVITATION FOR BID 01-22**

**WATER MAIN REHABILITATION PROGRAM, WATER METER REPLACEMENT AND  
EMERGENCY UTILITY REPAIRS**

**SECTION 1: ANNOUNCEMENT, DESCRIPTION AND GENERAL INFORMATION**

**SECURED BIDS** will be received electronically via a City designated bid receipt software solution until **December 29, 2022 at 2:00 PM**. The bidder assumes full responsibility for the timely delivery of a bid via the designated solution. Bids delivered in any other fashion will not be considered. Properly submitted bids will be opened in a virtual environment after the time set for receipt of bids and will be read aloud via a City telepresence software solution at the phone number and/or web address provided by the City and contained within this solicitation.

Submission of a bid electronically is consent by the bidder to conduct any or all elements of the procurement by electronic means, in accordance with the terms of this invitation for bid.

Bids presented after the bid receiving deadline will not be received for any reason. The official time clock for receiving bids will be that of the City's third-party software solution provider's computer server system.

**ATTENTION: BIDDERS ARE HEREBY NOTIFIED THAT THE CITY'S THIRD-PARTY SOFTWARE SOLUTION PROVIDER'S COMPUTER SERVER TIME MAY DIFFER FROM THAT OF OTHER ELECTRONIC DEVICES, COMPUTER SOFTWARE AND COMPUTER HARDWARE THAT MAY BE USED TO ELECTRONICALLY SUBMIT THE BID. BIDDERS ARE RESPONSIBLE FOR ALLOWING ADEQUATE TIME TO SUCCESSFULLY DELIVER THE BID TO THE REQUIRED ELECTRONIC LOCATION BY THE REQUIRED TIME.**

**PRE-BID CONFERENCE**

A virtual, telepresence pre-bid meeting will be held on **Tuesday, November 15, 2022, AT 2:00 P.M.** Individuals interested in viewing the project locations are encouraged to do so independently prior to the pre-bid meeting. Bidders shall assume complete responsibility and liability for any and all visits. Bidders must register below in order to attend the meeting. This meeting is not mandatory; however, bidders are strongly encouraged to attend.

Register for the Virtual Pre-bid Meeting Here: [Registration Link](#)

**DEADLINE FOR QUESTIONS**

Questions pertaining to this bid may be directed to TJ Ellison, Principal Buyer via **the City's Collaboration Portal** only at <https://contracts.rockvillemd.gov/gateway/Default.aspx> no later than **December 8, 2022, AT 2:00 PM**. Oral answers to questions relative to interpretation of specification or the bid process will not be binding on the City.

## **PROJECT DESCRIPTION**

IFB 01-22 WATER MAIN REHABILITATION PROGRAM, WATER METER REPLACEMENT AND EMERGENCY UTILITY REPAIRS (The Project), consists of, but is not limited to, furnishing of all labor, materials equipment, tools and services for a collection of various Water Main Rehabilitation Projects, Water Meter Replacements and Emergency Utility Repairs throughout the City of Rockville and other associated work as follows:

- Remove and dispose of existing water lines and connections; including existing water mains, water house connections and appurtenances, such as valves, blocking, fittings, etc;
- Install and maintain temporary by-pass water service system;
- Install new ductile iron water mains (various diameters) and appurtenances, such as valves, fire hydrants, fittings, etc., including work on Pre-stressed Concrete Cylinder Pipe (PCCP);
- Install concrete valve and meter vaults;
- Install new water service connections;
- Install single wrap polyethylene encasement on all DIP piping, fittings and appurtenances;
- Install new main line connections and appurtenances;
- Provide all testing (pressure, leakage, chlorine, bacteria, etc.) on new water mains;
- Install and maintain appropriate sediment controls and safety measures;
- Provide traffic control throughout the construction period;
- Repair City of Rockville right of way (pavement, aprons, curb and gutter, sidewalks, lawns, etc.);
- Emergency water and sewer utility work;
- Replace water meters throughout the City to aid in Rockville’s transition to Advanced Metering Infrastructure (AMI);
- Replace service lines, meter crocks and vaults as needed during the meter replacement

The water main rehab projects will be located at various locations throughout Rockville. See **Appendix A** for the approximate five-year schedule and **Appendix B** for the FY 2023 – FY 2027 project locations.

The water meter replacement will replace existing mechanical meters with ultrasonic meters compatible with planned AMI infrastructure beginning in FY 2023. The replacement of meters is a gradual transition planned from FY 2023 through FY 2030. Water service lines, meter crocks and meter vaults will be replaced on an as-needed basis. See **Appendix P** for an approximate number of meters of each size and **Appendix Q** for number of meters planned to be replaced each year. The schedule is preliminary and subject to change based on Mayor and Council approval of annual budgets.

The emergency utility repairs are unplanned and unknown at this time.

## **PROJECT CLASSIFICATION**

The estimated yearly contract value for Water Main Rehabilitation is expected to vary between \$3,000,000 and \$4,000,000, subject to Mayor and Council budget approval. The estimated yearly contract value for Water Meter Replacement is between \$450,000 and \$1,400,000, subject to Mayor and Council budget approval.

## **BID SECURITY**

Bids must be accompanied by an electronic copy of the Bid security made payable to the Mayor and Council of Rockville in an amount of five percent (5%) of Bidder’s Total Bid Price and in the form of a Bid Bond (AIA Bid bond form is acceptable) or a certified check, where the original security instrument must be mailed to City of Rockville, Procurement Division, 111 Maryland Avenue, Rockville, Maryland 20850, referencing the solicitation number. The City reserves the right to disqualify any bid, in any instance, where the City cannot locate the mailed, original security instrument. The City shall not be liable for any certified checks it cannot locate, or in any instance where a certified check is cashed by any individual not employed by the City of Rockville.

**AGREEMENT/PERFORMANCE & PAYMENT BONDS**

The successful contractor(s) shall be required to complete and return two copies of the City's Standard Form of Agreement. Performance and Payment Bonds in the amount of 100% of each **Task Order** award are to be provided within fifteen days after the date of issuance of each **Task Order**. No other form of performance or payment security will be permitted. Failure by the contractor to provide the agreement or bonds, as required, shall be just cause for annulment of the award and the forfeiture of the Bid Guarantee which shall become the property of the City, not as a penalty but in liquidation of damages sustained. Failure by the contractor to provide bonds for individual **Task Orders**, as required, shall be just cause for cancellation of the **Contract** to include monetary reimbursement to the City by the **Contractor** for any additional costs associated with completing **Task Orders** during the term of the cancelled contract, not as a penalty but in liquidation of damages sustained.

These bonds shall be considered incidental to the work. Costs associated with these bonds shall be the responsibility of the Contractor. The agreement, performance bond and payment bond requirements above also apply to Group III.

**INSURANCE**

The successful contractor shall be required to electronically furnish a certificate of insurance to include endorsements for additional insured and waiver of subrogation requirements within fifteen days after the date of request by the City. Failure by the contractor to provide insurance shall be just cause for annulment of the award and the forfeiture of the Bid Guarantee which shall become the property of the City, not as a penalty but in liquidation of damages sustained.

**SUBMISSION**

All bid forms and documents must be electronically filled out, signed, and submitted via one combined pdf document using the City's Collaboration Portal **only** at:

<https://contracts.rockvillemd.gov/gateway/Default.aspx>

At a minimum the file name of the pdf document must contain the Bid Number, Bidders Name and Bid Due Date.

A virtual, telepresence bid opening will be held a few minutes after the bid submittal due date and time. Individuals interested in attending the virtual bid opening must register below:

Register for Virtual Bid Opening Here: [Registration Link](#)

**SUBMITTALS**

The following information must be submitted with the bid, **where failure to submit requested items may result in rejection of the bid:**

- Section V: Bid Proposal Forms
- A certified check or bid bond must be in the amount of five percent (5%) of the total bid amount, made payable to the Mayor and Council of Rockville as in Section II, General Conditions and Instruction to Bidders, #25.
- If the bidder intends to subcontract any or part of the work, then the bidder must identify and include references for each qualified subcontractor, together with a description of the proposed subcontract work. This evidence shall be submitted with the bid. A minimum of five references shall be provided; additional project references may be required to meet all the requirements.

**BID EVALUATION**

The City will review each bid proposal received and accepted prior to the official closing date and time for responsiveness:

- Has the Bidder conformed to all the requirements of this Invitation for Bid?
- Are all forms properly signed as required?
- Are all required documents included with the bid proposal package?
- Did the Bidder take any exceptions to the requirements?

**UNBALANCED BID**

- An unbalanced bid is a bid with line items or unit prices with an extreme variation from the City's estimate, or where obvious unbalancing of unit prices has occurred.
- If the Procurement division determines that the bid appears to be unbalanced, the Procurement division will require that the Bidder submit documentation justifying the bid price(s) proposed.
- If the Bidder's justification does not satisfy the Procurement division, and, if the award of the contract to the Bidder would result in an advantage to the Bidder with a corresponding disadvantage to the City, or, if the competitive bidding process is jeopardized, then Procurement will reject the bid proposal as non-responsive in order to protect the public interest.

**BID AWARD**

The City reserves the right to make separate and/or multiple awards for each project: Water Main Rehabilitation, Water Meter Replacement, and Emergency Utility Repairs, and/or to make an award either in whole or in part, whichever is deemed in the best interest of the City. The award or awards will be made to the lowest responsive, responsible bidder or bidders as applicable.

Additionally, to ensure receipt of goods and/or services as soon as possible, the City may make multiple awards to primary, secondary, or tertiary sources etc. The lowest most responsive, as determined by the City for each project may be designated the primary source of supply. The secondary source will be the next lowest most responsive bidder, as determined by the City, and so on. The primary source will always be contacted first when goods and/or services are required. If the goods and/or services are not available from the primary source, then the secondary source will be contacted, and so on.

The City makes no warranty or guaranty as to the annual amount of **Contract** or **Task Order** spend for any of the projects of Water Main Rehabilitation, Water Meter Replacement, and Emergency Utility Repairs. The estimated quantities for the projects listed in the bid document are for bid evaluation purposes only and do not indicate an accurate accounting of the amount of work intended to be awarded to the successful bidder(s). Award(s) will be based on funding approved in the City's final budget document(s) as approved by the Mayor and Council in May of each year.

**BIDDER QUALIFICATIONS**

The Bidder and any proposed subcontractor(s) shall be properly licensed to conduct the project work in Montgomery County, Rockville, Maryland, including a Washington Suburban Sanitary Commission (WSSC) Tapping License.

At a minimum, the Bidder must provide written evidence (through references) of five years prior experience with the scope of work as detailed in the specifications. Additionally, the Bidder must have experience with at least three projects where pre-stressed concrete cylinder pipe (PCCP) was installed.

Bidders must provide five references of five years prior experience with the scope of work as detailed in the specifications. Additionally, the bidders must provide references for at least two pre-stressed concrete cylinder pipe (PCCP) projects/tasks. At total of five separate references are required for this bid.

If the Bidder intends to subcontract any or part of the work, then the Bidder must identify and include references for each qualified subcontractor, together with a description of the proposed subcontract work. This evidence shall be submitted with the bid, or the City, at its discretion, may determine the bid to be unresponsive. A minimum of three references shall be provided; additional project references may be required to meet all the requirements. Additional three references are required to confirm PCCP experience. References shall include the property name, address, contact person's name and telephone number, and a description of the work performed.

The Bidder shall satisfy the City that it has been engaged in the particular skills required to perform the following categories of work for at least three years, and have established a successful performance record of completed utility and associated site work, as follows:

- General Contracting
- Water Main Utility Installation
- Pre-stressed Concrete Cylinder Pipe (PCCP) Installation
- Sanitary Sewer Utility Installation
- Emergency Utility Construction
- Grading and Drainage

The Utility Contractor/Subcontractor shall be a competent and experienced contractor with an established reputation within the community. The Utility Contractor/Subcontractor shall have satisfactorily performed similar work for a minimum period of five years. The Bidder shall furnish a representative list of three projects, each with a minimum construction contract of \$250,000 per PCCP water project in the Mid-Atlantic region.

The City reserves the right to conduct such investigations as it deems necessary to determine the ability of the Bidder to successfully and timely perform the work. The City reserves the right to request additional information from the Bidder. The City may reject any bid where an investigation of the evidence or information submitted by the Bidder does not satisfy the City that the Bidder is qualified to properly carry out the terms of the Bid Document.

Subcontractors shall conform in all respects to the applicable provisions specified for the prime contractor and shall be subject to approval by the City. If a subcontractor or proposed subcontractor is determined to be unacceptable to the City, the Contractor shall substitute an acceptable subcontractor with no change in any contract unit prices or overall contract sum.

If your organization is listed on the U.S. Excluded Parties List <https://www.epls.gov/> on the IFB official closing date or is put on the Excluded Parties List at any time prior to the formal award of the contract, the Procurement Division shall immediately determine your organization as non-responsible and your bid proposal will be rejected.

#### **ADDENDUM**

Oral answers to questions relative to interpretation of specifications or the proposal process will not be binding on the City.

To ensure fair consideration for all offerors, any interpretation made to prospective offerors will be expressed in the form of an addendum to the specifications, if such information is deemed necessary for the preparation of proposals or if the lack of such information would be detrimental to the uninformed offeror. Such addendums, if issued, will be posted at [City's Collaboration Portal](#) listed below:

<https://contracts.rockvillemd.gov/gateway/Default.aspx>

Please note, that it is the respondent's responsibility to check this site frequently for Addendums, which may impact pricing, this documents requirements, terms and/or conditions. Failure to sign and return an Addendum with your response may result in disqualification of proposal.

**NOTICE TO BIDDERS**

Companies not incorporated in the State of Maryland must be in compliance with the State of Maryland Code of Regulations Title 21, State Procurement Regulations in order to enter into a contract with the City. "Pursuant to 7-201 et seq. of the Corporations and Associations, Article of the Annotated Code of Maryland corporations not incorporated in the State, shall be registered with the Department of Assessments and Taxation, 301 West Preston Street, Baltimore, Maryland 21201 before doing any interstate or foreign business in this state. Before doing any intrastate business in this state, a foreign corporation shall qualify with the Department of Assessments and Taxation."

**US TREASURY IDENTIFICATION NUMBER**

Bidders must supply with their bids their U.S. Treasury Department Employers' Identification Number as such number is shown on their Employer's quarterly Federal Tax Return (U.S. Treasury Department Form No. 941). This number shall be inserted on the Bid Sheet in the space provided.

**QUALIFICATION TO CONTRACT WITH PUBLIC BODY**

Bidders must be qualified to bid in the State in accordance with Section 14-308 of the State Finance and Procurement Article of the Annotated Code of Maryland which ordains that any person convicted of bribery (upon acts committed after July 1, 1997) in furtherance of obtaining a contract from the state or any subdivision of the State of Maryland shall be disqualified from entering into a contract with the City.

**DISABILITY INFORMATION**

ANY INDIVIDUALS WITH DISABILITIES WHO WOULD LIKE TO RECEIVE THE INFORMATION IN THIS PUBLICATION IN ANOTHER FORM MAY CONTACT THE ADA COORDINATOR AT 240-314-8100 TDD 240-314-8137.



**CITY OF ROCKVILLE  
MARYLAND  
SECTION II  
GENERAL CONDITIONS AND INSTRUCTIONS TO  
BIDDERS  
CONSTRUCTION**

1. **TERMS AND CONDITIONS** The terms and conditions of this document govern in event of conflict with any terms of the bidder's proposal, and are not subject to change by reasons of written or verbal statement by the contractor unless accepted in writing. Words and abbreviations which have well known technical or trade meanings are used in accordance with such meanings.
2. **COVID-19 VACCINATION REQUIREMENT** The Contractor agrees to provide the City's Project Manager or designated City staff proof of vaccination of any employee, subcontractor, or agent prior to such employee, subcontractor, or agent, pursuant to this Agreement, entering a City facility and performing any service or making any delivery in close proximity to one or more City employees, members of the Mayor and Council, members of a City board, commission or task force, or members of the general public in the City. Proof of vaccination means the demonstration of having received a full dose of a COVID-19 vaccine authorized by the Food and Drug Administration in a manner and on a schedule consistent with current United States Centers for Disease Control and Prevention guidelines. This paragraph shall not apply to any deliveries made pursuant to this Agreement by a common carrier.
3. **PRE-BID MEETING** A virtual, telepresence pre-bid meeting may be held for the purpose of describing the project and for answering any questions prospective bidders may have. If applicable, time and date will be shown on the bid announcement page.
4. **SUBMISSION OF BID** All bids are to be submitted electronically, in a pdf format file, via a City designated bid receipt software solution. File name of the pdf document must contain the Bid Number, Bidders Name and Bid Due Date. The following forms must be submitted:
  - Bid proposal page(s) in duplicate
  - Non-collusion/non-conviction affidavit
  - Bid Bond
  - Reference sheet
  - Other forms as required in the bid document.

The bid proposal form must be filled out and submitted electronically. Conditional bids and bids containing escalator clauses will not be accepted. All bids must be regular in every respect and no interlineation, exclusions, or special conditions shall be made or included. Bids must contain an electronic or scanned

signature, in the space provided, of an individual authorized to bind the bidder.

5. **LATE BIDS** It is the bidder's responsibility to assure delivery of the bid at the proper time via the designated electronic, software solution. Bids delivered in any other fashion will not be considered. All bids will be publicly opened in a virtual environment after the time set for receipt of bids and read aloud via a City telepresence software solution. Bidders may attend bid openings at the phone number and/or web address provided by the City.
6. **ADDENDUM** In the event that any addenda to this solicitation are issued, all solicitation terms and conditions will retain in effect unless they are specifically changed in the addendum. It is the responsibility of the bidder to make inquiry as to addenda issued. Oral answers to questions relative to interpretation of specifications or the proposal process will not be binding on the City.
 

Such addendums, if issued, will be posted via the city's designated electronic, software solution

Please note, that it is the bidder's responsibility to check this site frequently for Addendums, which may impact pricing, this document's requirements, terms and/or conditions. Failure to acknowledge an addendum on the bid proposal form or to sign and return an Addendum with your response may result in disqualification of proposal.
7. **BID OPENING** All bids received in response to an Invitation for Bid will be opened at the date, time and place specified and publicly read via a City telepresence software solution. A tabulation of bids received are posted using the City's designated electronic software solution.
8. **ACCEPTANCE OF BIDS** The City will accept or reject any or all bids or any or all items within ninety (90) days after the date of bid opening. Bids may not be withdrawn during that period.
9. **BID WITHDRAWAL** Bids may be electronically withdrawn (deleted) or modified by deleting the initial file uploaded and replacing it with a modified file using the City's electronic, software solution before the time specified for bid opening. Requests received after bid opening will not be considered.
10. **BID AWARD** Award will be made to lowest responsive and responsible bidder complying with all provisions of the Invitation for Bid, provided the price is reasonable and in the best interest of the City to accept. The City reserves the right to award by individual commodities/services, group, all or none or any combination thereof. When a group is specified, all items in the group must be bid.

In determining the responsibility of a bidder, the following criteria will be considered:

- a. The ability, capacity and skill of the bidder to perform the contract or provide the services required;

- b. Whether the bidder can perform the contract or provide the service promptly, or within the time specified, without delay or interference;
- c. The character, integrity, reliability, reputation, judgment, experience and efficiency of the bidder;
- d. The quality of performance on previous contracts or services;
- e. The previous and existing compliance by the bidder with laws and ordinance relating to the contract or service;
- f. The sufficiency of the financial resources and ability of the bidder to perform the contract or provide the service;
- g. The quality, availability and adaptability of the goods or services to the particular use required;
- h. The ability of the bidder to provide future maintenance and service for the use of the subject of the contract;
- i. Whether the bidder is in arrears to the City or a debt or contract or is in default on a surety to the City;
- j. Such other information as may be secured by the City having a bearing on the decision to award the contract.

#### 11. **ELECTRONIC PAYMENT OPTION**

The Vendor ACH Payment Program of the City allows payments to be deposited directly to a designated financial institution account. Funds will be deposited into the account of your choice automatically and on time. All transactions are conducted in a secure environment. The program is totally free as part of the Finance Department's efforts to improve customer services.

#### 12. **SENSITIVE DOCUMENTS**

All project participants needing either electronic or hardcopy documents dealing with critical facilities or sensitive information will be required to make application with, and receive approval from the City prior to receiving this information. Permission to receive said documents (herein referred to as "sensitive") will pertain only to the individual approved. Sensitive documents (either electronic or hardcopy documents dealing with critical facilities or sensitive information) received from the City must be handled consistent with the terms of non-disclosure required for application. Contractor is responsible to restrict use of sensitive documents to project participants only and shall take appropriate measure to prevent distribution of sensitive document to anyone inside or outside of the Contractor's company except Contractor's project participants. After completion of the project, all sensitive documents remaining in the Contractor's possession shall continue to be governed under the terms of non-disclosure and must continue to be stored in a secure manner. After such records are no longer needed for record purposes, the records shall be destroyed or returned to the City.

Where services require the Contractor to access the City's electronic information resources and/or its electronic data assets, the Contractor shall adhere to all requirements, terms and conditions of the City's Contractor/Vendor On-Site and Remote Access Confidentiality Agreement, which can be viewed at the following web address:

<https://www.rockvillemd.gov/documentcenter/view/36407>

- 13. **DOCUMENTS, MATERIALS AND DATA** All documents materials or data developed as a result of this contract are the City's property. The City has the right to use and reproduce any documents, materials and data, including confidential information, used in the performance of, or developed as a result of this contract. The City may use this information for its own purposes, including reporting to state and federal agencies. The contractor warrants that it has title to or right to use all documents, materials or data used or developed in connection with this contract. The Contractor must keep confidential all documents, materials and data prepared or developed by the contractor or supplied by the City.
- 14. **ERRORS IN BIDS** When an error is made in extending total prices, the unit price will govern. Erasures in bids must be initialed by the bidder. Carelessness in quoting prices or in preparation of the bid will not relieve the bidder from performing the contract. Errors discovered after public opening cannot be corrected and the bidder will be required to perform if the bid is accepted.
- 15. **MISTAKES** Bidders are expected to be thoroughly familiar with all bid documents, including all addenda. No consideration will be granted for any alleged misunderstanding of the intent of the contract documents. In the process of assembling and binding the bid documents individual pages or drawings may have been inadvertently omitted. Each bidder shall carefully and thoroughly examine these bid documents for completeness. No claim of any bidder will be allowed on the basis that these bid documents are incomplete.
- 16. **PRICES** Bids must be submitted on a firm, fixed price, F.O.B. destination basis only unless otherwise specified herein.
- 17. **PROMPT PAYMENT DISCOUNTS** All discounts other than prompt payment are to be included in the bid price. Prompt payment discounts will be considered in the evaluation of your bid if the discount on payment is not conditioned on payment being made in less than thirty (30) days from receipt of invoice.
- 18. **BIDDER'S PAYMENT TERMS** The City will reject as non-responsive a bid under this solicitation, which is conditioned on payment of proper invoices in less than thirty (30) days. However, this does not preclude a bidder from offering a prompt payment discount for payment of proper invoices in less than thirty (30) days.
- 19. **INTEREST IN MORE THAN ONE BID AND COLLUSION**  
**Multiple bids uploaded/received in response to a single solicitation from an individual, firm, partnership, corporation, affiliate, or association under the same or different names will be rejected.** Reasonable grounds for believing that a bidder is interested in more than one bid for a solicitation both as

a bidder and as a subcontractor for another bidder will result in rejection of all bids in which the bidder is interested. However, a firm acting only as a subcontractor may be included as a subcontractor for two or more bidders submitting a bid for the work. Any or all bids may be rejected if reasonable grounds exist for believing that collusion exists among any bidders. Bidders rejected under the above provisions shall be disqualified if they respond to a re-solicitation for the same work.

20. **QUALIFICATION OF THE BIDDER** The City shall have the right to take such steps as it deems necessary to determine the responsibility of the bidder to perform the obligations under the contract and the bidder shall furnish to the City all such information for this purpose as the City may request. The right is reserved to reject any bid where an investigation of available information does not satisfy the City that the bidder is qualified to carry out the terms of the contract.
21. **PLACING OF ORDERS** Orders against contracts will be placed with the Contractor on a Purchase Order (or Procurement Card – currently Mastercard) executed by the Purchasing Agent or designee. Where Master Agreements have been released by the City, orders may be placed directly with the Contractor by authorized personnel in the ordering Department(s). Issuance of all purchase orders will be contingent upon appropriation of funds by the Mayor and Council and encumbrance of such funds after July 1st of each year, as provided by the City Code.
22. **INSPECTION OF THE WORK SITE** Each bidder shall visit the site of the proposed work and become fully acquainted with the existing conditions and fully informed as to any facility involved, and the difficulties and restrictions attending the performance of this contract. Applicable drawings, technical specifications and contract documents should be thoroughly examined. The successful bidder shall in no way be relieved of any obligation due under the executed contract by the failure to examine any form of legal instrument or to visit the site.
23. **RISK OF LOSS AND CONDITION OF SITE** The City makes no representation and assumes no responsibility for the condition of the site or applicable structures on the site. The contractor shall accept the site and the contents thereon in the condition in which they are represented. Any damages or loss whatsoever while the contract is in effect (whether by reason of fire, theft, breakage or other happenings) shall not relieve the Contractor from any obligations under this contract. The Contractor shall store any materials on site as not to damage the materials and shall maintain such storage areas, as directed by the City, in hazard free condition.
24. **SUBCONTRACTORS** Nothing contained in the contract documents, shall create any contractual relationship between the City and any subcontractor or sub-subcontractor.

Unless otherwise indicated, the successful contractor who will subcontract the delivery, installation, or portion of the work herein described will submit to the Project Manager, prior to the start of work, the following information: 1) A description of the items to be subcontracted, 2) the subcontractor name, address, and telephone number, and 3) the nature and extent of the

work utilized during the life of the contract. Subcontractors shall be considered agents of the Contractor, who shall be held fully accountable for all of the subcontractor services, labor, and materials relative to the contract.

25. **BID BOND** Bids must be accompanied by an electronic copy of a certified check or bid bond for five percent (5%) of the total amount of the bid, made payable to the Mayor and Council of Rockville, where the original security instrument must be mailed to City of Rockville, Procurement Division, 111 Maryland Avenue, Rockville, Maryland 20850, referencing the solicitation number. AIA Bond forms are acceptable. Bonds must be issued by a surety licensed to do business in the State of Maryland. The City reserves the right to disqualify any bid, in any instance, where the City cannot locate the mailed, original security instrument. The City shall not be liable for any certified checks it cannot locate, or in any instance where a certified check is cashed by any individual not employed by the City of Rockville. Bid bonds will not be returned.
26. **EXECUTION OF AGREEMENT/BONDS** Subsequent to award and within fifteen (15) calendar days after the prescribed forms are presented to the Contractor, the Contractor shall execute and electronically deliver to the City the required Agreement and Bonds, where two (2) sets of the original agreement and original bonds must be mailed to City of Rockville, Procurement Division, 111 Maryland Avenue, Rockville, Maryland 20850.

Bonds shall be in effect during the original term of the contract and during the guarantee and warranty period required under the Contract, unless otherwise stated therein.

**PERFORMANCE BOND** The Contractor shall execute and deliver to the City the required Performance Bond for 100% of the bid amount.

**PAYMENT BOND** For a contract exceeding One Hundred Thousand Dollars (\$100,000) the payment bond shall be in an amount equal to 100% of the bid amount. For a contract exceeding Twenty-Five Thousand Dollars (\$25,000) but not exceeding One Hundred Thousand Dollars (\$100,000) the payment bond shall be in an amount equal to fifty percent (50%) of the bid amount. Bonds shall be executed by a surety company authorized to do business in the State of Maryland.

The successful bidder may request that in lieu of bonds, the City accept the equivalent in the form of a certified check or other security. Such requests will be accepted or rejected by the City Manager. If rejected, the successful bidder will be required to furnish the bonds or forfeit the bid bond. The City shall not be liable for any certified checks it cannot locate, or in any instance where a certified check is cashed by any individual not employed by the City of Rockville.

Failure of the successful bidder to execute the agreement and supply both the electronic versions and original versions of the required forms within fifteen (15) calendar days shall constitute a default. Any instance where the City cannot locate the mailed versions of the agreement or bonds shall also constitute a default. The successful bidder shall forfeit to the City as liquidated

damages for such failure or refusal an amount in cash equal to the security deposited with the bid.

The City may either award the contract to the next low responsive and responsible bidder or re-advertise the bids, and may charge against the original bidder the difference between the amount of the bid and the amount for which a contract for the work is subsequently executed. If a more favorable bid is received by a re-advertising, the defaulting bidder shall have no claim against the City for a refund.

27. **LEGAL REQUIREMENTS** All materials, equipment, supplies and services shall conform to applicable Federal, State, County and City laws, statutes, rules and regulations. The Contractor shall observe and comply with all Federal, State, County and City laws, statutes, rules and regulations that affect the work to be done. The provisions of this contract shall be governed by the laws of the State of Maryland.
28. **INDEMNIFICATION OF THE COUNCIL** The Contractor shall indemnify and save harmless the Mayor and Council from all suits, actions and damages or costs, of every name and description to which the Council may be subjected or put by reason of injury to persons or property as a result of the work, whether caused by negligence or carelessness on the part of the Contractor, or subcontractors or agents thereof.
29. **DELIVERY** Time is of the essence. The Contractor shall expedite the work and achieve substantial completion within the contract time. If time limits are not specified, state the number of days required to make delivery/completion in the space provided. Defective or unsuitable materials or workmanship shall be rejected and shall be made good by the Contractor, notwithstanding that such materials/workmanship have been previously been overlooked and accepted.
30. **CHANGES IN QUANTITIES/ITEMS** The City reserves the right to add or delete any item(s) from the bid in whole or in part at the City's discretion as given in the Bid or Proposal wherever it deems it advisable or necessary so to do and such changes shall in no way vitiate the contract nor affect the bid prices for any item or remaining work. Unit prices submitted in the bid shall not be increased or decreased regardless of changes in quantity. The City may waive minor differences in specifications in bids provided these differences do not violate the specifications' intent nor materially affect the operation for which the items or services are being purchased

The Contractor will be paid for the actual amount of authorized work done or material furnished under any item of the bid at the price bid and stipulated for such item. In case any quantity is increased, the Contractor shall not be entitled to any increased compensation over and above the unit price bid for such item, or any claim for damages on account of loss of anticipated profits should any quantities be decreased. The Contractor shall be responsible for confirming the accuracy of the specified quantities prior to ordering materials or supplies and the City's payment shall be based on the actual quantities incorporated in the work and not the quantities specified in the bid document. The quantities must not exceed the Contract specified quantities without specific written authorization of the Project

Manager and it is the Contractor's responsibility to obtain said authorization.

31. **MATERIALS** All materials shall be new and free from defects. They shall be standard products of current manufacture. Unless otherwise noted in the contract documents, the Contractor shall abide by specific manufacturer instructions and recommendations on installation and operation.
32. **BRAND NAME OR EQUAL** Identification of an item by manufacturer's name, trade or brand name, or catalog number is for information and establishment of a quality level desired and is not intended to restrict competition. Bidders may offer any brand which meets or exceeds the specification, unless 'brand name only' is specified. Bids on other makes and/or models will be considered provided the bidder clearly states on the proposal what is being proposed and forwards with the bid complete descriptive literature indicating how the characteristics of the article being offered will meet the specifications. The City reserves the right to accept or reject items offered as an equal.
33. **DEFECTIVE MATERIALS/WORKMANSHIP** Defective or unsuitable materials or workmanship shall be rejected and shall be made good by the Contractor. If the work shall be found to be defective or to have been damaged before final acceptance, the Contractor shall make good such defect in a manner satisfactory to the City, without extra compensation even though said defect or injury may have not been due to any act or negligence of the Contractor.
34. **TIME OF BEGINNING AND COMPLETION** Unless otherwise stipulated in the bid document, the Contractor shall begin work on the Contract within ten (10) working days after the mailing of a purchase order and shall diligently prosecute the same, so that it shall be fully completed within the time as stated in the contract. The Contractor shall not commence any work under the Contract until a written Purchase Order is received from the Purchasing Agent.
35. **FAILURE TO COMPLETE WORK ON TIME/ LIQUIDATED DAMAGES** The Contractor accepts this contract with the understanding and intention to perform fully and in an acceptable manner within the time stated. Should he fail to complete fully, to all intent and purpose, the work specified in the time specified, or within the time as it may have been extended by the City, the Contractor shall pay, for each calendar day that any work shall remain uncompleted, not including Sundays, the sum of \$400 per calendar day or such other amount as specified in the Special Provisions. This sum is hereby agreed upon, not as a penalty, but as liquidated damages and the City shall have the right to deduct the amount of such damages from any moneys due the Contractor under this Contract.

The City shall recover such Liquidated Damages by deducted the amount thereof out of any moneys due or that may become due the Contractor, and if said moneys are insufficient to cover said damages, then the Contractor or the Surety shall pay the amount due upon demand by the City.

36. **AUTHORITY OF THE CITY MANAGER IN DISPUTES** Except as may otherwise be provided by the final agreement, any dispute concerning a question of fact arising under the agreement signed by the City and the Contractor which is not disposed of by the final agreement shall be decided by the City Manager who shall notify the Contractor in writing of his determination. The Contractor shall be afforded the opportunity to be heard and offer evidence in support of the claim. Pending final decision of the dispute herein, the Contractor shall proceed diligently with performance under the agreement signed by the City and the Contractor. The decision of the City Manager shall be final and conclusive unless an appeal is taken pursuant to the City Purchasing Ordinance.
37. **CONTRACT DELAYS/EXTENSION OF TIME** The Contractor shall pursue the contract so as to complete all work within the time allotted in the bid document. The completion date as set in the bid document allows for inclement weather, holidays and coordination with other companies. If the Contractor is delayed in the delivery of the supplies, equipment or services by any act of neglect of the City or by a separate Contractor employed by the City, or by any changes, strikes, lockouts, fires, unusual delays in transportation or delay authorized by the City, the City shall review the cause of such delay and shall make an extension of time if warranted. All claims for extensions must be in written notice sent to the Project Manager within ten (10) calendar days after the date when such alleged cause for extension of time occurred. All such claims shall state specifically the amount of time of the delay the Contractor believes to have suffered. If written notice is not received within the prescribed time the claim shall be forfeited and invalidated.
38. **CONTRACT DELAYS - NO DAMAGE CLAIMS ACCEPTED** The Contractor shall make no claim for extra monetary compensation for delays, whether ordered by the City or not, caused by delays in funding, governmental approvals, private or public companies' actions, inclement weather, site conditions, or from any cause whatsoever. The Contractor shall adjust its operation to continue the work at other locations under the contract, if available, and as directed by the City. If it is necessary to discontinue the work temporarily, the Contractor shall resume work within 48 hours of notice from the City. The City may adjust the completion date to compensate for the lost day(s) on a day-for-day basis, if the City finds that the Contractor could not make up for such lost day(s) by reallocating its forces or rescheduling the work, up to the time remaining on the original schedule at the time of shutdown.
39. **PROGRESS SCHEDULE AND SCHEDULE OF OPERATIONS** The construction of this project will be planned and recorded with an Activities Chart Project Schedule (AC) and Written Narrative (WN) unless specifically determined to be unnecessary by the Project Manager. The AC Project Schedule and Written Narrative will break down, in detail, the time (working days or completion date) involved in performing major construction activities for the duration of the project. The AC Project Schedule shall be used for the coordination and monitoring of major work under the contract including the activities of subcontractors, vendors and suppliers. The AC Project Schedule shall be prepared in accordance with the requirements of the Maryland State Highway Administration Standard Specifications for Construction and Materials dated January 1982, and the

errata and addend thereto, subsequent supplement(s) and the Special Provisions as set forth in this Invitation for Bids, unless otherwise directed or approved by the Project Manager. The schedule shall be consistent with the contract specified completion date(s) and/or working days. The Contractor is responsible for preparing the initial AC Project Schedule and Written Narrative.

**Preparation of Initial Schedule** - Within 10 calendar days after notification that the Contractor is the apparent successful bidder, the Contractor will complete development of a initial AC Project Schedule and Written Narrative (describing the logical time representations as proposed in the AC Project Schedule), and submit 2 (two) copies of each AC and WN to the Project Manager for review and approval.

**Updating Project Schedule:** At any time that it becomes apparent the schedule, created as above and approved by the Project Manager, is not being implemented, either because the work or service is ahead or behind schedule, the Contractor shall immediately notify the Project Manager and shall submit a revised, written, updated AC and WN for the Project Manager's review, revision and approval. The contractor shall make every effort to meet the original completion date and/or working days allowed unless otherwise so directed by the Project Manager.

**Payment for Schedule AC/WN:** No special compensation will be paid for preparing or revising the above project AC/WN as the cost shall be considered incidental to the contract with compensation incorporated into the bid items(s).

40. **SPECIFICATIONS** The Construction Specifications for this contract will be those shown below and additions included in the bid document, if applicable. In the event of conflict, the City determination shall govern. The following specifications and standards, listed below, including all subsequent addenda, amendments and errata are made part of this contract to the extent required by the references thereto:
1. Maryland Department of Transportation, State Highway Administration, "Standard Specifications for Construction and Materials" (Maryland Department of Transportation, State Highway Administration), dated January 2008 and all errata and addenda thereto. MDSHA Book of Standards for Highway and Incidental Structures.
  2. Montgomery County Department of Transportation "Montgomery County Road Construction Code and Standard Specifications."
  3. Standard Specifications of WSSC dated July 2005.
  4. Montgomery County Department of Transportation "Design Standards" August 1991.
  5. Maryland Dept of the Environment "1994 Standards and Specifications Soil Erosion and Sediment Control"
  6. The U. S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices" latest edition.
  7. Montgomery County Noise Ordinance.
41. **CONTRACT DOCUMENTS** The contract documents are complementary and what is required by any one shall be binding as if required by all. Words and abbreviations that have well known technical or trade meanings are

used in the contract documents in accordance with such recognized meanings. On drawings, the figured dimensions shall govern in the case of discrepancy between the scales and figures. Anything shown on the construction plans and not mentioned in the specifications or mentioned in the specifications and not shown on the plans shall have the same effect as if shown or mentioned respectively in both.

Prior to bidding, the Contractor should obtain clarification of all questions which may have arisen as to intent of the contract document, or any actual conflict between items in the contract documents. Should the Contractor have failed to obtain such clarification, then the City may direct that the work proceed by any method indicated, specified or required, in the judgment of the City, by the contract documents. Such direction by the City shall not constitute the basis for a claim for extra costs by the Contractor. The Contractor acknowledges that he had the opportunity to request clarification prior to submitting his bid to the City and that he is not entitled to a claim for extra cost as a result of failure to receive such clarification.

Any discrepancies which may be discovered during the execution of work between actual conditions and those represented by the contract documents shall be reported to the City and work shall not proceed until written instruction has been received by the contractor from the City.

42. **INTERPRETATION** Any questions concerning terms, conditions and definitions of the contract and bidding regulations shall be directed in writing to the Contract Officer. Any questions concerning the technical specifications and drawings shall be directed in writing to the Project Manager. The submission of a bid shall be prima facie evidence that the bidder thoroughly understands the terms of the contract documents. The Contractor shall take no advantage of any error or omission in these contract documents.
43. **PRE-CONSTRUCTION CONFERENCE** A pre-construction conference may be held in person or virtually following contract award. The meeting must be attended by the Contractor. No compensation will be made by the City to the Contractor for meetings.
44. **EMERGENCY CONTACT** The Contractor shall provide at least two local telephone numbers which may be used for contacting an official of the Contractor at all times, 24 hours per day, seven days per week: at which numbers person(s) of responsibility will be available to respond to City directives relative to the contract. The Contractor shall have available sufficient personnel and equipment to immediately respond to emergency needs, as determined by the City. There will be no special compensation paid for this requirement but the cost is to be considered incidental to the other contract pay items.
45. **SUPERVISION AND DIRECTION OF WORK** The work shall be under the general supervision of the Project Manager. While it is intended that the Contractor shall be allowed in general to carry on the contract in accordance with such general plan as may appear to the Contractor most desirable, the Project Manager, at the Project Manager's discretion, may from time to time, direct the order in which, and points at which, the work shall be prosecuted and may exercise such general control over the conduct of the work at a time or place,
- as shall be required, in the Project Manager's opinion, to safeguard the interests of the City, and the Contractor shall have no claims for damages or extra compensation on account of the fact that it shall have been necessary to carry on the work in different sequence from that which the Contractor may have contemplated. The Contractor shall immediately comply with any and all orders and instructions given by the Project Manager, but nothing herein contained shall be considered such an assumption of control over the work by the City or the Project Manager as to relieve the Contractor of any obligations or liabilities under the contract.
46. **INSPECTION** Work and materials will be inspected promptly to see that the same strictly correspond with the drawings and specifications, but if, for any reason, delay should occur in connection with such inspection, the Contractor shall have thereby no claim for damages or extra compensation. Materials and workmanship shall be always subject to the approval of the Project Manager, but no inspection, approval or acceptance of any part of the work or of the materials used therein, nor any payment on account thereof shall prevent the rejection of said materials or work at any time thereafter, should said work or materials be found to be defective or not in accordance with the requirements of the contract. Any costs for any "re-inspection" of the job shall be the responsibility of the contractor.
47. **TERMINATION FOR DEFAULT** The contract may be cancelled or annulled by the City in whole or in part by written notice of default to the Contractor upon nonperformance or violation of contract terms and an award made to next low Bidder, or, articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting Contractor (or his surety) shall be liable to the City for costs to the City in excess of the defaulted contract prices: provided, that the Contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause.
48. **TERMINATION FOR CONVENIENCE** This Contract may be terminated, in whole or in part, upon written notice to the Contractor when the City determines that such termination is in its best interest. The termination is effective 10 days after the notice is issued, unless a different time is given in the notice. The City is liable only for payment for goods and services delivered and accepted or approved by the City prior to the effective date of the termination.
49. **EMPLOYEES** The Contractor shall employ only competent, skillful persons to do the work, and whenever the Project Manager shall notify the Contractor in writing that any person employed on the work is, in his opinion, incompetent, disobedient, disorderly, discourteous or otherwise unsatisfactory, such person shall be discharged from the work and shall not again be employed for this contract except with the consent of the Project Manager.
50. **NON-WORK DAY** The City observes the following holidays: New Year's Day, Martin Luther King's Birthday, President's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Thanksgiving Friday and Christmas Day, all days of general and congressional elections throughout the State, and a five-day work week.

The Contractor will not be permitted to do any work which requires the services of the City's inspection, supervisory or line and grade forces on the days on which the above mentioned holidays are observed by the City or on Saturdays or Sundays, unless otherwise authorized by the Project Manager in writing. However, the Contractor, with verbal permission of the Project Manager, may be permitted to perform clean up and such other items for which no specific payment is involved on Saturdays and holidays.

The normal number of working hours per day on this Contract will be limited to eight, unless otherwise authorized by the Project Manager in writing.

In case of an emergency, which may require the services of the City on Saturdays, Sundays, holidays or longer than eight hours per day, the Contractor shall request permission of the Project Manager to work. If, in the opinion of the Project Manager the emergency is bona fide, he will grant permission to the Contractor to work such hours as may be necessary. Also, if in the opinion of the Project Manager, a bona fide emergency exists, the Project Manager may direct the Contractor to work such hours as may be necessary whether the Contractor requests permission to do so or not.

51. **LANGUAGE** The Contractor shall appoint one or more crewmembers or supervisors to act as liaison with the City and emergency services personnel. All liaisons shall be fluently bilingual in English and the Contractor's employees' language(s), and at least one liaison shall be present at each work site at all times when any of the Contractor's employees or agents are at the site.
52. **IMMIGRATION REFORM AND CONTROL ACT**  
The Contractor awarded a contract pursuant to this bid shall warrant that it does not and shall not hire, recruit or refer for a fee, for employment under the contract, an alien knowing the alien is an unauthorized alien and hire any individual without complying with the requirements of the Immigration Reform and Control Act of 1986 (the Act), including but not limited to any verification and record keeping requirements. The Contractor shall further assure the City that, in accordance with the Act, it does not and will not discriminate against an individual with respect to hiring, or recruitment or referral for a fee, of the individual for employment or the discharging of the individual from employment because of such individual's national origin or in the case of a citizen or intending citizen, because of such individual's citizenship status.
53. **EQUAL EMPLOYMENT OPPORTUNITY** The Contractor will not discriminate against any employee or applicant for employment because of age (in accordance with applicable law), ancestry, color, national origin, race, ethnicity, religion, disability, genetics, marital status, pregnancy, presence of children, gender, sexual orientation, gender identity or expression, or veteran status. The Contractor will take affirmative action to ensure that applicants are employed, and the employees are treated fairly and equally during employment with regard to the above. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment, layoff or termination, rates of pay or other form of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the

provisions of this nondiscrimination clause. Contractors must also include the same nondiscrimination language in all subcontracts.

If the Contractor fails to comply with nondiscrimination clauses of this contract or fails to include such contract provisions in all subcontracts that subcontractors will not discriminate against any employee or applicant for employment in the manner described above, this contract may be declared void AB INITIO, cancelled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further contracts with the City of Rockville. Any employee, applicant for employment, or prospective employee with information concerning any breach of these requirements may communicate such information to the City Manager who shall commence a prompt investigation of the alleged violation. Pursuant to such investigation, the Contractor will permit access to the Contractor's books, records, and accounts. If the City Manager concludes that the Contractor has failed to comply with nondiscrimination clauses, the remedies set out above may be invoked.

54. **ETHICS REQUIREMENTS** In accordance with the City's financial disclosure and ethical conduct policy and/or ordinances a prerequisite for payment pursuant to the terms of this contract is that the Contractor may be required to furnish explicit statements, under oath, that the City Manager, and/or any other officer, agent, and/or employee of the City, and any member of the governing body of the City of Rockville or any member or employee of a Commission, Board, or Corporation controlled or appointed by the City Council, Rockville, Maryland has not received or has not been promised directly or indirectly any financial benefit by way of fee, commission, finder's fee, or in any other manner, remuneration arising from directly or indirectly related to this contract, and that upon request by the City Manager, or other authorized agent, as a prerequisite to payment pursuant to the terms of this contract, the Contractor will furnish to the Mayor and Council of the City of Rockville, under oath, answers to any interrogatories to a possible conflict of interest has herein embodied.
55. **DRAWINGS TO BE FOLLOWED** The approved drawings, profiles and cross sections on file with the City will show the location, details and dimensions of the work contemplated, which shall be performed in strict accordance therewith and in accordance with the specifications. Any deviations from the drawings or specifications as may be required by the exigencies of construction in all cases will be determined by the Project Manager. There shall be no such deviations without the written authorization of the Project Manager. On all drawings, etc., the figured dimensions shall govern in the case of discrepancy between the scales and figures. The Contractor shall take no advantage of any error or omission in the drawings or specifications. The Project Manager shall make such corrections and interpretations as may be deemed necessary for the fulfillment of the intent of the specifications and of the drawings as construed by the Project Manager whose decision shall be final.
56. **CERTIFICATION** Under no circumstances will Contractors be paid for materials utilized on any City contract unless certified to by the Project Manager. The Contractor must not incorporate any materials into a City project without prior authorization and certification of the

Project Manager, unless necessary to eliminate or avoid hazardous conditions. Under these emergency circumstances the responsibility for notification to the Project Manager and quantity/quality confirmation rests with the Contractor and must be obtained within 24 hours of the work.

57. **DECISIONS AND EXPLANATIONS BY PROJECT MANAGER** The Project Manager shall make all necessary explanations as to the meaning and intent of the specifications and drawings, and shall give all orders and directions, either contemplated therein or thereby, or in every case in which a difficult or unforeseen condition arises during the prosecution of the work. Should there be any discrepancies or should any misunderstanding arise as to the intent of anything contained in the drawings and specifications, the decision of the Project Manager shall be final and binding. The Project Manager shall in all cases determine the amount, quality, acceptability and estimates of the work to be paid for under the Contract, and shall decide all questions in relation to the work. In case any questions arise between parties relating to the Contract, such decision and estimate shall be a condition precedent to the right of the Contractor to receive payment under that part of the Contract which is in dispute.
58. **WORK TO BE DONE AND MATERIALS TO BE FURNISHED** The Contractor shall do all the work and furnish all the labor, materials, tools, and equipment necessary or proper for performing the work required by the Contract, in the manner called for by the drawings and specifications and within the Contract time. The Contractor shall complete the entire work together with such extra work as may be required, at the prices fixed therefore, to the satisfaction of the Project Manager and in accordance with the specifications and drawings.
59. **NOTIFICATION TO OTHER AGENCIES** The Contractor will be responsible for notifying all concerned agencies affected by the work a minimum of 48 hours in advance of any activity, as prescribed by said agencies, including, but not limited to: the Washington Gas, PEPCO, Verizon Comcast Cable, Transcontinental Gas, City of Rockville Utilities Division, Montgomery County Government, State Highway Administration and the Washington Suburban Sanitary Commission. The Contractor must notify MISS UTILITY at 1-800-257-7777 a minimum of 72 hours and no more than 5 working days prior to removal of any pavement or beginning any excavation. There shall be no measurement or direct payment to the Contractor for such notification, working around, the protection of, or repair of damage to such existing utilities caused by the proposed construction activities directly or indirectly.
60. **PERMITS AND REGULATIONS** Unless stipulated elsewhere in these specifications, the Contractor shall be responsible for obtaining and paying for all applicable permits. Where signatures of the City are required in connection with the obtaining of such permits, certificates, etc., the Contractor shall prepare the proper paperwork and present it to the City for signature. City of Rockville Permit fees shall be waived. If the Contractor ascertains at any time that any requirement of this contract is at variance with applicable laws, ordinances, regulations and/or building codes, notification to the Project Manager shall be made immediately and any necessary adjustment to the contract shall be made. Without proper notice to the Project Manager, the

Contractor shall bear all costs arising from the performance of work the Contractor knows to be contrary to such laws, ordinances, etc.

61. **EXCAVATION** Unless specifically provided in the specifications, all trench and roadway excavation is hereby unclassified as to the character of materials. The lump sum or unit price, as specified, for or including excavation shall constitute full payment for removal and disposal of all materials, regardless of type, encountered in trenching and roadway excavation, within the limits of this Contract, as necessary and as shown to be removed on the Contract drawings and/or as directed by the Project Manager, except as otherwise provided for under this Contract. All bidders are hereby directed to familiarize themselves with all site conditions including subsurface and the proximity of adjacent features.
62. **SERVICE OF NOTICES** The mailing a written communication, notice or order, addressed to the Contractor at the business address filed with the City, or to his office at the site of the work shall be considered as sufficient service upon the Contractor of such communication, notice or order; and the date of said service shall be the date of such mailing. Written notice shall also be deemed to have been duly served if delivered in person to the individual or member of the firm or to any officer of the corporation for whom it was intended if delivered or sent by registered or certified mail to the last known address.
63. **PATENT RIGHTS** Whenever any article, materials, equipment, process, composition, means, or things called for by these specifications is covered by letters of patent, the successful bidder must secure, before using or employing such article, material etc., the assent in writing of the Owner or Licensee of such Letters of Patent and file the same with the City.

The said assent is to cover not only the use, employment, and incorporation of said article, material, equipment, process, composition, combination, means, or thing in the construction and completion of the work but also the permanent use of said article, material, etc., thereafter by or on behalf of the City, in the operation and maintenance of the project for the purposes for which it is intended or adapted. The Contractor shall be responsible for any claims made against the City, its agents and employees or any actual or alleged infringement of patents by the use of any such patented articles, etc., in the construction and completion of the work, and shall save harmless and indemnify the City, its agents and employees from all costs, expenses, and damages, including Solicitor's and Attorney's fees which the City may be obligated to pay by reason of any actual or alleged infringement of patents used in the construction and completion of the work herein specified.

64. **CARE AND PROTECTION OF WORK** From the commencement of the Contract until its completion, the Contractor shall be solely responsible for the care of the work and all injury or damage to the same, from whatever cause, shall be made good by the Contractor at the Contractor's own expense, before the final estimate is made. The Contractor shall provide suitable means of protection for all materials intended to be used in the work and for work in progress, as well as completed work.

65. **ABANDONMENT OF OR DELAY IN WORK** If the work under the Contract shall be abandoned by the Contractor, or if at any time the Project Manager shall be of the opinion and shall so certify, in writing, to the Contractor, that the performance of the Contract is unnecessarily or unreasonably delayed, or that the Contractor has violated any of the provisions of the Contract or is executing the same in bad faith or if the work is not fully completed within the time specified for its completion, together with such extension of time as may have been granted, the City by written notice, may order the Contractor to discontinue all work there under, or any part thereof, within the number of days specified on such notice. At the expiration of said time the Contractor shall discontinue the work, or such part thereof, and the City shall have the power, by Contract, or otherwise, to complete said work and deduct the entire cost thereof from any monies due or to become due the Contractor under the Contract. For such completion of work the City may, for itself or its Contractor, take possession of and use or cause to be used any or all materials, tools, and equipment found on the site of said work. When any part of the Contract is being carried on by the City, as herein provided, the Contractor shall continue the remainder of the work in conformity with the terms of the Contract and in such manner as not to interfere with the City's workmen.
66. **SUBLETTING OR ASSIGNING OF CONTRACT** The City and the Contractor each bind themselves, their partners, successors, assigns and legal representatives of such other parties in respect to all covenants, agreements, and obligations contained in the contract documents. Neither party to the contract shall sublet, sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, or of the work provided for therein, or of his right, title or interest therein to any person, firm or corporation without the written consent of the other party, nor shall the Contractor assign any monies due or to become due hereunder without the previous written consent of the City.
67. **NO WAIVER OF CONTRACT** Neither the acceptance by the City or its Project Manager nor any order, measurement, certificate or payment of money, of the whole or any part of the work, nor any extension of time nor possession taken by the City or its Project Manager shall operate as a waiver of any portion of the Contract, or any right to damage therein provided. The failure of the City to strictly enforce any provision of this contract shall not be a waiver of any subsequent breach of the same or different nature.
68. **DUTIES, OBLIGATIONS, RIGHTS AND REMEDIES** The duties and obligations imposed by the contract documents and the rights and remedies available there under shall be in addition to and not a limitation of the duties, obligations, rights and remedies otherwise imposed or available by law, unless so indicated.
69. **IMPLIED WORK** All incidental work required by the drawings or specifications for which no payment is specifically provided and any work or materials not therein specified which are required to complete the work and which may fairly be implied as included in the Contract, and which the Project Manager shall judge to be so included, shall be done or furnished by the Contractor without extra compensation. The intent is to prescribe a complete work or improvement which the Contractor undertakes to do in full compliance with the contract documents together with any authorized alterations, special provisions and supplemental agreements.
70. **MEASUREMENT OF WORK AND MATERIAL** The work and material to be paid for will be measured and determined by the Project Manager according to the specifications and drawings, and the working lines that may be given. No allowance will be made for any excess above the quantities required by the specifications, drawings and lines on any part of the work, except where such excess material has been supplied or work done by order of the Project Manager and in the absence of default or negligence on the part of the Contractor. Should the dimensions of any part of the work or of the materials be less than those required by the drawings or the directions of the Project Manager, only the actual quantities placed will be allowed in measurement.
71. **EXTRA COSTS** If the contractor claims that any instructions by the contract documents or otherwise involve extra compensation or extension of time, a written protest must be submitted to the Project Manager within ten (10) calendar days after receipt of such instructions and before proceeding to execute the work, stating in detail the basis for objection. No such claim will be considered unless so made.
72. **CONTINGENT ITEMS & QUANTITIES** Items and quantities identified as being contingent are provided in the Contract for use when and as directed by the Project Manager. These items shown on the Plans or in the specifications are established for the purpose of obtaining a bid price. The quantities for these contingent items may be increased or decreased without any adjustment to the Contract unit price bid or the contingent items may be deleted entirely from the Contract by the Project Manager without negotiation. The Contractor shall submit no claim against the City for any adjustment to the Contract unit price bid, should the contingent items be increased, decreased or eliminated entirely. Payment for any contingent items used will be made on the basis of the quantities as actually measured and as specified in the Specifications. Materials, Construction Requirements and Basis of Payment shall be as specified elsewhere in the Specifications, Plans or Special Provisions.
73. **CHANGES IN THE SCOPE OR EXTRA WORK** The City, without invalidating the contract, may issue written changes in the work consisting of additions, deletions, or modifications with the contract sum and completion date being adjusted accordingly. All such changes, or additional work must be authorized in writing by the Purchasing Agent prior to starting such work. Costs shall be limited to the cost of materials, labor, field supervision and field office personnel directly involved in and attributed to the change. All costs and/or credits to the City for a change in the work shall be determined by the unit price bid or by mutual agreement.
- The Contractor shall do all work that may be required to complete the work contemplated at the unit prices bid or at a lump sum price to be mutually agreed upon.
- The Contractor shall perform extra work, for which there is no quantity or price included in the Contract, whenever it is deemed necessary or desirable, to complete fully the work as contemplated, and such work shall be done in accordance with the specifications therefore, or in the

best workmanlike manner as directed. Where such a price or sum cannot be agreed upon by both parties, or where this method of payment is impracticable, the Project Manager may order the Contractor to do such work on a force account basis, which will be paid for as follows.

74. **FORCE ACCOUNT WORK** When the Contractor is required to perform work as a result of additions or changes to the contract for which there are no applicable unit prices in the contract, the City and Contractor shall make every effort to come to an agreed upon price for the performance of such work. If an agreement cannot be reached, the City may require the Contractor to do such work on a force account basis to be compensated in accordance with the following:

- A. **Labor.** For all labor and for foremen in direct charge of the specific operations the Contractor shall receive the actual wages for each and every hour that said labor and foremen are actually engaged in such work.
- B. **Materials.** For materials accepted by the Project Manager and incorporated into the project, the Contractor shall receive the actual cost of such materials, including transportation charges paid by him (exclusive of machinery rentals as hereinafter set forth). Excess materials delivered to the job site and not incorporated into the project will not be paid for and it is the Contractor's responsibility to remove said excess material from the job site.
- C. **Equipment.** For any machinery or special equipment (other than small equipment tools, whether rented or owned), the use of which has been authorized in writing, by the Project Manager the Contractor shall receive the rates agreed upon in writing before such work is begun which price shall include fuel, oil and miscellaneous necessities, or the Contractor shall receive those rates which may be specified elsewhere in the Special Provisions. For the purpose of definition, equipment with a new cost of \$1000 or less will be considered small tools and equipment.
- D. **Materials and Supplies Not Incorporated in the Work.** For materials and supplies expended in the performance of the work (excluding those required for rented equipment) and approved by the Project Manager, the Contractor shall receive the actual cost of such materials and supplies used.
- E. **Subcontractors.** The Contractor shall receive the actual cost of work performed by a subcontractor. Subcontractor's cost is to be determined as in A., B., C., and D. above, plus the fixed fee for overhead and profit allowance computed as in G.
- F. **Superintendence.** No additional allowance shall be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided
- G. **Contractor's Fixed Fee.** The procurement officer and the Contractor shall negotiate a fixed fee for force account work performed

pursuant to this specification by his force and by his subcontractors. The City shall pay 10 percent of A as compensation for overhead and profit for the work performed. The Contractor shall proceed diligently with the performance of the force account work to completion. The Contractor's fixed fee shall include an amount equal to the sum of 65 percent of A, which shall include, but not be limited to the following:

- (1) Compensation for all costs paid to, or in behalf of, workmen by reason of subsistence and travel allowances, health and welfare benefits, pension fund benefits or other benefits that may be required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed in the work; and
- (2) Bond premiums, property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions and Social Security taxes on the force account work.

In addition, the Contractor's fixed fee may include an amount not to exceed 10 percent of B, unless specifically authorized by the Project Manager in advance of the work; 5 percent of D, and 5 percent of E with the exception of that portion chargeable to equipment as defined above.

- H. **Compensation.** The compensation as set forth above shall be received by the Contractor as payment in full for change order work done on a force account basis. At the end of each day, the Contractor's representatives and the Project Manager, shall compare records of the cost of work as ordered on a force account basis. Differences shall be immediately resolved and any unresolved difference shall be brought to the attention of the Project Manager by written notice from the Contractor within two working days of the occurrence.
- I. **Statements.** No payment will be made for work performed on a force account basis until the Contractor furnishes the Project Manager duplicate itemized statements of the cost of such force account work detailed as to the following:
  - (1) Name, classification, date, daily hours, total hours, rate, and extension for such workmen. Contractor shall provide certified payrolls
  - (2) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment. Contractor shall provide original receipted invoices.
  - (3) Quantities of materials, prices and extensions. Contractor shall provide original receipted invoices.
  - (4) Transportation of materials. Contractor shall provide original receipted invoices.

If, however, the materials used in the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the original invoices the statements shall contain or be accompanied by an affidavit of the Contractor which shall certify that such materials were taken from his stock that the quantity claimed was actually used and that the price and transportation of the material as claimed represent actual cost. Any request for payment under this Section should be submitted in the order outlined by the above.

The Contractor shall be responsible for all damages resulting from work done on a force-account basis, the same as if this work had been included in the original Contract.

Work performed without previous written order by the Project Manager will not be paid.

75. **ALLOWANCES** Whenever an allowance is mentioned in the specifications, then the contractor shall include in his contract sum the entire amount of such specified allowances. The expenditure of these allowances is to be at the Purchasing Manager's direction. However, the allowance expenditure is limited to items properly inferable from the title and description of the allowance. Unexpended balances are to be credited to the City. Compensation payable to the contractor for expenditure of allowances directed by the Purchasing Manager shall be based on the cost to the contractor as shown by actual invoices or receipts, and no additional overhead or profit shall be payable to the contractor for such allowances.

76. **PROGRESS PAYMENTS AND RETAINAGE** The Contractor shall submit a detailed application for payment on a monthly basis, preferable on an AIA G702 form. Such application for payment, notarized, if required, must be accompanied by supporting data and documents substantiating the Contractor's right to payment and reflecting a five percent (5%) retainage.

Applications for payment shall not include payment for equipment or materials delivered to the site but not installed or for materials or equipment properly stored off-site unless specifically approved by the Project Manager. If such approval is granted, the Contractor must submit with the application for payment, bills of sale or other such documentation satisfactory to the City to establish the City's title to such materials or equipment or otherwise to protect the City's interest, including applicable insurance and transportation to the site for materials and equipment stored off site. Such approvals are typically reserved for "big ticket" items that individually would exceed five percent (5%) of the bid total. The Contractor shall promptly pay each subcontractor and supplier for work completed upon receipt of payment from the City the amount to which said subcontractor is entitled, reflecting any percentage retained from payments to the Contractor on account of each subcontractors work. The Contractor shall, by an appropriate agreement with each subcontractor, require each subcontractor to make prompt payments to his subcontractors in a similar manner.

The City shall be under no obligation to pay or to see to the payment of any moneys to any subcontractor except as may otherwise be required by law.

No Certificate of Payment or partial or entire use of the facility by the City shall constitute an acceptance of any work which is not in accordance with the Contract Documents.

**Payments Withheld** – The City may decline to certify payment or because of subsequently discovered evidence or observations, nullify the whole or any part of any Certification of Payment previously issued, as may be necessary to protect the City from loss because of: (1) defective work not remedied, (2) third party claim filed or evidence indicating probable filing of such claim, (3) failure of the Contractor to make payments properly to subcontractors or suppliers, (4) reasonable evidence that the work can not be completed for the unpaid balance of the contract sum, (5) reasonable evidence that the work will not be completed within the Contract time, (6) persistent failure to carry out the work.

77. **FINAL PAYMENT REQUEST** Upon reaching substantial completion, as defined by receipt of occupancy permit or when all related punch list items have been completed, whichever date is later, the Contractor may submit a written Application for Final Payment. All supporting documentation and data shall be submitted with the Request for Final Payment as is applicable to the monthly Requests for Payment referenced heretofore.

Out of the amount representing the total of the final payment request the City shall deduct five (5%) percent, which shall be in addition to any and all other amounts which, under the Contract, it is entitled or required to retain and shall hold said sum for a period of one hundred and twenty (120) days after the date of acceptance of the work by the City.

Within thirty (30) days after the approval of the final payment request, the City will pay to the Contractor the amount remaining after deducting from the total amount of the final estimate all such sums as have hereto before been paid to the Contractor under the provision of the Contract and also such amounts as the City has or may be authorized under the Contract to reserve or retain.

Neither the final payment nor the remaining retainage shall become due until the Contractor submits to the Project Manager:

1. An affidavit that all payrolls, bills for materials and equipment and other indebtedness connected with the work for which the City or his property might in any way be responsible, have been paid.
2. Consent of surety to final payment, and
3. If requested, data establishing payment or satisfaction of obligations, such as receipt, release and waivers of liens arising out of the Contract;
4. All punch list items are completed to the satisfaction of the Project Manager.

If any subcontractor refuses to furnish a release or waiver of liens required by the City, the Contractor may furnish a bond satisfactory to the City to indemnify him against any such lien. If any such lien remains unsatisfied after all payments are made, the Contractor shall refund to the City all moneys that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorney fees.

Acceptance by the Contractor of final payment shall operate as a release to the Mayor and Council and every officer and agent thereof, from all claims and liabilities to the Contractor for anything done or furnished or relating to the work under the contract.

78. **RELEASE OF RETAINAGE** Upon the expiration of the aforesaid period of one hundred and twenty (120) days succeeding the date of acceptance, the City will pay to the Contractor all sums reserved or retained, less such amount as it may be empowered under the provisions of the Contract to retain.
79. **GUARANTEES / WARRANTIES** All guarantees and warranties required shall be furnished by the Contractor and shall be delivered to the Project Manager before final payment is made. The Contractor guarantees that the items conform to the contract documents.
80. **GUARANTEE PERIOD** The Contractor shall warrant and guarantee the work required under this Contract for a period of twelve (12) months from the date of Final Acceptance. The Contractor warrants and guarantees to the City, that materials and equipment furnished under the Contract shall be of good quality and new unless otherwise required or permitted by the Contract Documents, that all work will be in accordance with the Contract Documents, and that all work will be of good quality, free from faults and defects. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the City, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

The Contractor's obligation to perform and complete the work in a workmanlike manner, free from faults and defects and in accordance with the Contract Documents shall be absolute. The Contractor shall remedy, at his own expense, and without additional cost to the Owner, all defects arising from either workmanship or materials, as determined by the City, or City's representative. The obligations of the Contractor under this Paragraph shall not include normal wear and tear under normal usage.

If the Contractor does not, within ten (10) days after notification from the Project Manager, signify his intention in writing or in action to correct work, as described above, then the Project Manager may proceed with the work and charge the cost thereof to the account of the Contract as herein before provided.

81. **Substantial Completion.** Sufficient completion of the project or the portion thereof to permit utilization of the project, or portion thereof for its intended purpose. Substantial completion requires not only that the work be sufficiently completed to permit utilization, but that the City can effectively utilize the substantially completed work. Determination of substantial completion is solely at the discretion of the City. Substantial completion does not mean complete in accordance with the contract nor shall substantial completion of all or any part of the project entitle the Contractor to acceptance under the contract.

At such time as the Contractor has completed the work and prior to requesting a final inspection, the Contractor shall make written request for an inspection for substantial completion. Such request shall be made no less than seven (7) calendar days prior to the requested

date of inspection. An inspection will be made by the City and a determination will be made as to whether or not the work is in fact substantially complete and a "punch list" will be developed. "Punch Lists" containing numerous items or items which may affect the intended use of the work will be considered cause to delay issuance of a document of Substantial Completion. Operation and Maintenance manuals shall be submitted and approved prior to issuance of any document of Substantial Completion.

82. **TRANSFER OF TITLE** The Contractor warrants that title to all work, materials and equipment covered by the Application for Payment will pass to the City either by incorporation in construction or upon the receipt of payment by the Contractor, free and clear of all liens, claims, interests or encumbrances, and that no work, materials, or equipment covered by an Application for Payment will have been acquired by the Contractor, or by any person performing the work at the site or furnishing materials or equipment for the project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other persons.
83. **USE OF PREMISES** Whenever, in the opinion of the Project Manager, any portion of the work is completed or is in an acceptable condition for use, it shall be used for the purpose it was intended, however, such use shall not be held as acceptance of that portion of the work, or as a waiver of any of the provisions of the Contract.
84. **DETERMINATION OF CITY'S LIABILITY** The acceptance by the Contractor of the final payment made as aforesaid shall operate as and be a release to the City and every officer and agent thereof, from all claims by and liabilities to the Contractor for anything done or furnished for or relating to or affecting the work under the contract.
85. **NO LIMITATION OF LIABILITY** The mention of any specific duty or liability of the Contractor in any part of the specification shall not be construed as a limitation or restriction upon any general liability or duty imposed upon the Contractor.
86. **PRESERVATION OF MONUMENTS AND TREES** The Contractor shall be responsible for the preservation of all public and private property, trees, monuments, highway signs, markers, fences, and curbs or other appurtenances, and shall use every precaution to prevent damage or injury thereto. Any expense necessary to provide adequate protection, whether such designated item be on or off the right-of-way, shall be assumed by the Contractor.
87. **PUBLIC ACCESS** The Contractor shall at all times conduct the work in such a manner as to insure the least obstruction to traffic practicable. The convenience and safety of the general public and the residents along the improvement shall be provided for in an adequate and satisfactory manner. Fire hydrants shall be kept accessible to fire apparatus at all times. Handicap access shall remain accessible.
88. **HAZARDOUS AND TOXIC SUBSTANCES** Manufacturers and distributors are required by Federal "Hazard Communication" provision (29 CFR 1910.1200), and the Maryland "Access to Information About

Hazardous and Toxic Substances" law to label each hazardous material or chemical container, and to provide Material Safety Data Sheets to the purchaser. The Contractor must comply with these laws and must provide the City with copies of all relevant documents, including Material Safety Data Sheets, prior to performance of services or contemporaneous with the delivery of goods.

89. **MAINTENANCE OF VEHICULAR TRAFFIC (if applicable)**

Unless otherwise directed by the Project Manager, traffic must be maintained on all roadways within the construction area continuously or with the least amount of interruption during the construction period necessary to minimize accidents and accident severity and maintain safety while at the same time minimizing inconvenience to the traveling public and the Contractor. The Project Manager shall have the exclusive right to order a road to be closed or to remain open. No equipment will be stored or permitted to stand within the limits of the roadway right-of-way where traffic must be maintained. Any earth dropped on the surface of the existing road shall be removed immediately to avoid possible hazardous conditions. The Contractor shall prepare and submit a Traffic Control Plan (TCP) for the Project Manager's review, revision, and approval, at least ten days before beginning work, unless otherwise directed.

All Traffic Control Devices shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), latest edition (and all revisions). With the approved TCP implemented, the Contractor will be permitted to work with the following provisions: All traffic lanes must be restored at the end of each day unless specifically authorized otherwise, in advance, by the Project Manager:

The City reserves the right to modify or expand on the methods of traffic control specified and to restrict working hours if, in the opinion of the Project Manager, the Contractor's operations are a detriment to traffic during rush hour periods.

Signs on fixed supports shall be mounted on two posts. Signs mounted on portable supports are suitable for temporary conditions. During periods of partial shutdown, or extended periods when no work is being performed, the Contractor shall remove or adequately cover all construction signs as directed by the Project Manager.

The Contractor shall be responsible for removing, storing, covering, and resetting all existing traffic signs and delineators that become inapplicable and will confuse traffic during the various stages of construction, the cost of which shall be included in the price for Maintenance of Traffic or in the absence of such a pay item it shall be accomplished at no additional compensation, as incidental to the contract. Any signs lost or damaged will be replaced by the Contractor at its expense.

The Contractor shall provide, maintain in new condition, and move when necessary or directed all traffic control devices used for the guidance and protection of vehicles.

The Contractor shall be responsible for providing the appropriate signs to reflect varying traffic patterns prior to the commencement of a new stage of construction.

Traffic must be safely maintained at all times throughout the entire length of the project. No additional compensation shall be paid to the contractor for traffic maintenance, even if the contract time exceeds the contractually specified completion date or working days.

When required lane shifts are implemented, existing painted lane markings no longer applicable shall be removed to the satisfaction of the Project Manager.

Temporary crash cushions are to be installed as shown on the Plans. Unless otherwise specified, sand containers shall be used. The crash cushions shall conform to Subsection 104.10 of the MDSHA Specifications.

Crash cushions shall be reset to reflect changing traffic patterns caused by different stages of Traffic Control. The crash cushions shall be reset at locations shown on the Plans or as directed by the Project Manager.

Should any of the sand container components be damaged during the resetting of the system or during the course of the project, the Contractor shall replace the damaged components at its own expense.

The Contractor shall have flaggers on this Project for the purpose of controlling traffic while maneuvering heavy equipment. This may require a temporary lane closure in any of the specified Traffic Control Phases. These temporary lane shutdowns shall be kept to a minimum and the normal traffic pattern for the Traffic Phase shall be restored as quickly as possible. The Contractor shall comply with Section B-20 of the MUTCD regarding flagger signing.

Prior to stopping work each day the Contractor will be required to reshape all graded areas and eliminate all drop-offs not protected by barriers by filling with compacted stone at maximum of 8:1 slope.

All barriers and barricades shall be adequately illuminated at night, as specified herein, and all lights for this purpose shall be kept operative from sunset to sunrise.

No work shall be commenced in any stage of construction until the barriers and barricades for that stage, indicated on the Plans, or as specified by the Project Manager, are completely in place. The Contractor will be solely responsible for all accidents and damages to any persons and property resulting from its operations. Compliance with prescribed precautions contained herein or in the MDSHA Specifications or Manual On Uniform Traffic and Control shall not relieve the Contractor of its primary responsibility to take all necessary measures to protect and safeguard the work, nor relieve the Contractor from any responsibilities prescribed by GP-7 of the January 2001 MDSHA Standard Specifications for Construction and Materials.

The Contractor shall notify and obtain approval in writing from the Project Manager, at least 48 hours before changing any Traffic Control Phase.

Any construction materials or debris dropped on the roadway surface shall be removed immediately to avoid possible hazardous conditions.

**Materials** The Contractor shall provide, maintain in first class condition, replace and move when necessary or directed all materials, devices, flagging, etc., required to maintain traffic in accordance with the Traffic Control Plans or as directed by the Project Manager. Reference is made to the latest edition of the MUTCD, wherein all such items are fully described with regard to use, application, warranties, size, color, placement, etc., and wherein typical traffic control device layouts are shown, as all such devices and techniques planned for use on this project shall strictly conform to the Manual's request except as noted on the Plans.

When any of the following items have been established on the Plans or as directed by the Project Manager, the Specifications will be adhered to in accordance with the respective sections.

**Lights, Warnings, Etc.** - All banners and imitation barrels shall be adequately illuminated at night, and all lights for this purpose shall be kept operative from sunset to sunrise.

Steady burning warning lights shall be used to delineate channelization through and around obstructions in a construction or maintenance area, on detour curves, on lane closures, and in other similar conditions (MUTCD 6E-4, 6E-5). Flashing warning lights shall be the means for identifying a particular and individual hazard and shall not be used in sequence, in clusters, or for delineation (MUTCD: 6E-5, 6E-6).

Where noted on the plans the first two (2) warning signs shall include a "High Level Warning Device." In addition to the flags the signs shall also be equipped with a Type "B" High Intensity Flag Warning Light. This device must meet the requirements of MUTCD 6C-11 and 6E-5. The device shall be incidental to the Temporary Traffic Sign item if provided for, otherwise the costs shall be considered incidental and no special compensation will be paid.

**Barriers:** Temporary concrete barriers shall be installed on the roadway approaches as shown on the plans or as approved in writing.

Any permanent facilities damaged as a result of anchoring temporary concrete barriers (anchor holes, etc.) shall be repaired to the satisfaction of the Project Manager using an epoxy grout or other material as may be specified by the Project Manager. Epoxy grout shall consist of sand and epoxy, mixed by volume according to manufacturer's recommendations.

**Method of Measurement and Basis of Payment:** All work and materials required under the TCP not covered or specified as a pay item on the price proposal form will be included in the lump sum price bid for Maintenance of Traffic. In the absence of such an item the Contractor agrees that there will be no special compensation paid for maintenance of vehicular traffic as described above and the cost shall be considered incidental to the contract and compensated as part of other contract bid item(s).

90. **PARKING, STORAGE AND STAGING AREAS** Parking, storage and staging areas for the Contractor's use during the Project must have prior approval of the Project Manager. All areas used for storage of equipment or material shall be restored to their original

condition, immediately upon completion of the work. No additional compensation will be provided for restoring, re-grading, placement of topsoil, and seed and mulch in these areas.

91. **PEDESTRIAN TRAFFIC** Pedestrians shall be safeguarded by the use of signs lights, barricades and barriers as shown on the traffic control plan and/or directed by the Project Manager. Pedestrian traffic shall be maintained at all times unless specifically authorized otherwise, in advance, by the Project Manager. The Contractor shall submit a pedestrian traffic safety plan in accordance with the MUTCD, incorporating safety measures and other provisions to fully implement the intent of this paragraph. All work and materials required to prepare and implement the pedestrian traffic safety plan shall be considered incidental to the contract and there shall be no special compensation paid for this item unless special pay items are included in the Price Proposal page. No additional compensation shall be paid for maintenance of vehicular and pedestrian traffic if for whatever reason the project time extends beyond the contract specified completion date or working days.
92. **HANDICAP ACCESS** Where handicap access exists within the line of work under this contract it will be the contractor's responsibility to maintain said access during the life of this contract. This service is considered to be incidental to this contract and no special compensation will be paid for this service unless provided on the Price Proposal page.
93. **TOILET FACILITIES** Toilet facilities meeting MOSHA standards shall be provided at the job site for all projects exceeding \$100,000 in value and at all other job sites when directed by the City. No special compensation shall be paid unless specifically provided for in the Price Proposal page of this solicitation.
94. **STAKEOUT-CONSTRUCTION CONTROL** Survey construction control provided by the City shall be limited to the baseline with stations not over 100 feet, and the elevation of the top of each marked point. P.C.s, P.T.s, P.I.s, P.V.T.s, and at least one point on the tangent beyond the end of each curve will be staked. The Contractor shall request baseline stakeout a minimum of five days in advance of construction. Stakeout data other than stated above will be furnished by the construction Contractor per MDSHA Section 815 for structures, otherwise per WSSC specs. section 01000(H) and as described in detail below and in these specifications. The City's responsibility for stakeout for the entire project shall be limited to that data described above and this shall be provided only once. The Contractor shall preserve or otherwise ensure adequate survey controls exist throughout the life of the contract.

Surveys and stakeout shall be accomplished by the Contractor as outlined above and in conformance with WSSC specifications Section 01000-10-I I(H), entitled "Construction Stakeout By Contractor."

The provisions therein are primarily for pipeline stakeout. The Contractor's responsibilities under this contract are hereby expanded to include, in addition to pipeline stakeout, similar responsibilities for all phases of stakeout necessary to construct all facilities under this contract including but not limited to clearing and grubbing excavation, pavement, curbs and gutters, storm drainage pipes and facilities, culverts, structures, storm

water management facilities, street lights, traffic signal conduits and components, noise walls, retaining walls, ditches and sediment control features.

The stakeout and survey record data shall be preserved and turned over to the City for filing following completion of specific components of work.

Method of Measurement and Payment Generally, stakeout shall be considered incidental to the contract and no special compensation shall be paid, unless a specific pay item is included in the contract Price Proposal page of this contract. Where payment is provided, progress payments for stakeout shall be made based on the percentage resulting from the price bid for stakeout divided by the total bid, multiplied by the monthly payment exclusive of the stakeout payment, except the final payment shall be adjusted as necessary to equal the total price bid for stakeout.

Grade Sheet by Contractor: Grade sheets showing hub and design elevations for roadway, water mains, drainage structures and piping, walks, lights, infiltration facilities clearing/grubbing, excavation, and related components will be provided by the construction Contractor at least 8 hours in advance of construction and will be subject to approval by the Project Manager. Stakeout for curb and gutter in all vertical and horizontal curves is to be at intervals of 25 feet or less unless otherwise specifically authorized by the Project Manager. This work is considered incidental to the contract and no extra compensation will be paid.

95. **DEBRIS** Under no circumstance will any open fires be permitted within the City of Rockville. All debris will be removed and hauled from site (except when otherwise specifically authorized in the bid document) and disposed in accordance with Local, State and Federal laws in effect at the disposal site. No special compensation will be paid as all costs for off-site disposal shall be included in the applicable bid prices and considered incidental to the contract.
96. **CLEAN UP** In addition to any provisions regarding clean up in the bid document, clean up, including the restoration of areas of construction, shall proceed as quickly as is practicable. The period between construction and final clean up shall normally not exceed one week. If at any time during the course of the work the cleaning operation in any given area becomes delinquent in the opinion of the Project Manager he may order that construction be stopped until such cleaning is completed. Any such order shall not extend the Final Completion date under this contract. Unless otherwise indicated, all materials razed, demolished, or otherwise removed from the work site shall become the property of the Contractor and shall be disposed of legally and properly off site at his expense.

Upon Final Completion of the work and before acceptance and final payment shall be made, the Contractor shall clean and remove from the street, footways, lawns, and adjacent property, all surplus and discarded materials, rubbish and temporary structures, restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work and shall leave the work area in a neat and presentable condition throughout the entire length of the project under contract.

If the Contractor fails to clean up at Final Completion of the work, the City may do so and the cost thereof shall be charged to the Contractor.

## INSURANCE REQUIREMENTS

Prior to the execution of the contract by the City, the Contractor must obtain at their own cost and expense and keep in force and effect during the term of the contract including all extensions, the following insurance with an insurance company/companies licensed to do business in the State of Maryland evidenced by a certificate of insurance and/or copies of the insurance policies. The Contractor's insurance shall be primary. **The Contractor must electronically submit to the Purchasing Division a certificate of insurance prior to the start of any work.** In no event may the insurance coverage be less than shown below.

Unless otherwise described in this contract the successful contractor and subcontractors will be required to maintain for the life of the contract and to furnish the City evidence of insurance as follows:

### MANDATORY REQUIREMENTS FOR INSURANCE

Contractor's insurance coverage shall be primary insurance as respects the City, its elected and appointed officials, officers, consultants, agents and employees and any insurance or self-insurance maintained by the City, shall be excess of the Contractor's insurance and shall not be called upon to contribute with it.

Type of Insurance	Amounts of Insurance	Endorsements and Provisions
<b>1. Workers' Compensation</b> <b>2. Employers' Liability</b>	Bodily Injury by Accident: \$100,000 each accident  Bodily Injury by Disease: \$500,000 policy limits  Bodily Injury by Disease: \$100,000 each employee	Waiver of Subrogation: <b>WC 00 03 13 Waiver of Our Rights to Recover From Others Endorsement signed and dated.</b>
<b>3. Commercial General Liability</b> a. Bodily Injury b. Property Damage c. Contractual Liability d. Premise/Operations e. Independent Contractors f. Products/Completed Operations g. Personal Injury	Each Occurrence: \$1,000,000	City to be listed as additional insured and provided 30 day notice of cancellation or material change in coverage. <b>CG 20 37 07 04 and CG 20 10 07 04 forms to be both signed and dated.</b>
<b>4. Automobile Liability</b> a. All Owned Autos b. Hired Autos c. Non-Owned Autos	Combined Single Limit for Bodily Injury and Property Damage - (each accident): \$1,000,000	City to be listed as additional insured and provided 30 day notice of cancellation or material change in coverage. <b>Form CA20 48 02 99 form to be both signed and dated.</b>
<b>5. Excess/Umbrella Liability</b>	Each Occurrence/Aggregate: \$1,000,000	City to be listed as additional insured and provided 30 day notice of cancellation or material change in coverage.
<b>6. Professional Liability</b>	Each Occurrence/Aggregate: \$1,000,000	

Alternative and/or additional insurance requirements, when outlined under the special provisions of this contract, shall take precedence over the above requirements in part or in full as described therein.

### POLICY CANCELLATION

No change, cancellation or non-renewed shall be made in any insurance coverage without a thirty (30) day written notice to the City Purchasing Division. The Contractor shall electronically furnish a new certificate prior to any change or cancellation date. The failure of the Contractor to deliver a new and valid certificate will result in suspension of all payments and cessation of on-site work activities until a new certificate is furnished.

### ADDITIONAL INSURED

**The Mayor and Council of Rockville, which includes its elected and appointed officials, officers, consultants, agents and employees must be named as an additional insured** on the Contractor's Commercial and Excess/Umbrella Insurance for liability arising out of contractor's products, goods, and services provided under this contract. Additionally, The Mayor and

Council of Rockville must be named as additional insured on the Contractor's Automobile and General Liability Policies. Endorsements reflecting the Mayor and Council of Rockville as an additional insured are required to be submitted with the insurance certificate.

**SUBCONTRACTORS**

All subcontractors shall meet the requirements of this Section before commencing work. In addition, Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

**CERTIFICATE HOLDER**

**The Mayor and Council of Rockville**

**(Contract #, title)**

City Hall

111 Maryland Avenue

Rockville, MD 20850

## SECTION III: SPECIAL PROVISIONS

### CONTRACT DOCUMENTS

The contract documents are complementary and what is required by any one shall be binding as if required by all. Words and abbreviations that have well known technical or trade meanings are used in the contract documents in accordance with such recognized meanings. On drawings, the figured dimensions shall govern in the case of discrepancy between the scales and figures. Anything shown on the construction plans and not mentioned in the specifications or mentioned in the specifications and not shown on the plans shall have the same effect as if shown or mentioned respectively in both.

- A. Prior to submitting its bid proposal, it is solely the Bidder's responsibility to obtain clarification of all questions which may have arisen as to intent of the solicitation / contract document, or any actual conflict between items in the solicitation / contract documents. Should the Bidder fail to obtain such clarification and is awarded a contract, then the City may direct that the work proceed by any method indicated, specified or required, in the judgment of the City, by the contract documents. Such direction by the City shall not constitute the basis for a claim for extra costs by the Contractor. The Contractor acknowledges that it had the opportunity to request clarification prior to submitting his bid to the City and that it is not entitled to a claim for extra cost as a result of failure to receive such clarification.
  
- B. Any discrepancies which may be discovered during the execution of work between actual conditions and those represented by the contract documents shall be reported to the City and work shall not proceed until written instruction has been received by the contractor from the City.

In addition to the requirements of Section II City of Rockville Contractual Terms and Conditions, Items No. 41 and 42, in the case of discrepancies in the Contract Documents and need for interpretation, the documents shall be given precedence in the following order:

Change Orders  
 Addenda  
 City of Rockville Contractual Terms and Conditions  
 Special Provisions  
 Technical Specifications  
 Drawings  
 Standard Details  
 City of Rockville Standard Details  
 Applicable Codes and Standards listed below

Any questions, requests for information or revisions to the specifications must be reviewed and approved by the City of Rockville.

**CONTRACT TERM**

The initial period of the contract shall be from award through December 31, 2023. The City retains the right to extend the contract for four additional 1-year periods. Prices, as quoted, shall remain firm through December 31, 2024.

**CONTRACT EXTENSIONS**

The City reserves the right to extend the contract with the awarded contractor for more than one year which may include additional work, change orders or other services where applicable.

**MULTI-YEAR CONTRACTS**

Multiyear contracts may be continued each fiscal year only after funding appropriations and program approval have been granted by the Mayor and Council of Rockville. In the event that the Mayor and Council do not grant necessary funding appropriation, then the affected multiyear contracts becomes null and void, effective July 1 of the fiscal year for which such approvals have been denied.

**BID QUANTITIES**

The estimated quantities listed in the bid document are for bid evaluation purposes only and do not indicate an accurate accounting of the amount of work intended to be awarded to the successful bidder. Award will be based on funding approved in the City's final budget document as approved by the Mayor and Council in June of each year.

**PRICE ADJUSTMENTS**

All prices/rates quoted are to be held firm through December 31, 2024. A request for price adjustment is subject to approval or rejection by the City. A request for price adjustment from a contractor will not be approved unless the contractor submits to the City sufficient justification to support the request. A request for price adjustment may not be approved which exceeds the amount of the annual percentage change of the Consumer Price Index (CPI) for the twelve-month period immediately prior to the date of the request. The request shall be based upon the CPI for all urban consumers issued for the Washington, DC Metropolitan Area by the United States Department of Labor's Bureau of Labor Statistics for the specific commodity or service group being provided by the contractor under this contract. The request for the increase must be accompanied with supporting documentation justifying the requested price adjustment. A price increase, if approved, shall be effective sixty (60) days from the date of receipt of the contractor's request.

The City may request a price decrease adjustment from the contractor for any/all items at any time. The request will be subject to acceptance by an authorized agent of the Contractor. The request will be submitted in writing at least thirty (30) days prior to taking effect and will be accompanied by supporting documentation. Decreased pricing will not apply to orders received by the Contractor prior to the effective date of the approved decrease in contract unit price. The City may cancel, without liability to either party, any portion of the contract affected by the Contractor's rejection of any requested decrease and any materials, supplies or services undelivered at the time of such cancellation.

**PROJECT SCHEDULE**

The bid award is tentatively scheduled for award by Mayor and Council in early 2023. See **Appendix A and B** for the project listings and schedule. The projects are located along various City of Rockville rights-of-way. By-pass piping must be deactivated between November 15 and March 1, weather permitting.

The City shall issue a work authorization in the form of a Task Order for each separate project. Each such written notice shall include a specific start and completion date. The completion dates will be determined based on an

average of 45 calendar days per 1,000 linear feet of water main. The City reserves the right to adjust completion dates prior to issuance of the work authorization based on its sole evaluation of the complexity of the work.

### **CONSTRUCTION WORK HOURS**

Normal working hours for Water Main Rehab are from 7:00 a.m. to 5:00 p.m., Monday through Friday. Working outside of these hours must first be approved by the City.

### **APPLICABLE CODES AND STANDARDS**

As a minimum standard of quality workmanship, all work is to comply with the latest provisions and recommendation of the following documents in the following order of precedence. In the event of conflict, the City's determination shall govern.

- Washington Suburban Sanitary Commission, Standard Details for Construction and Design Manual
- Current Montgomery County Department of Public Works and Transportation Design Standards
- Current Montgomery County Department of Permitting Services, Water Resources Division, Standard Details
- MSHA "Standard Specifications for Construction and Materials" including all errata and addenda thereto and additions included in these special provisions.
- MDE, WMA and SCS Maryland State and Specifications for Soil Erosion and Sediment Control
- Maryland Department of Environment- Maryland's Waterway Construction Guidelines (MWCG)
- Maryland Soil Conservation Service, Standards and Specifications – Pond Code 378, hereinafter called USDA-SCS Maryland Code 378
- American Society for Testing and Materials, "ASTM Standards"
- American Water Works Association Standards (AWWA Standards)
- American Association of State Highway and Transportation Officials, "AASHTO Standards"
- American Concrete Institute (ACI) Standards
- Maryland Seeding Association, Standard Specifications

### **PROJECT KICKOFF CONFERENCE**

Upon issuance of the Notice To Proceed, the Contractor shall arrange a project kickoff meeting between the Contractor, and appropriate City staff, including the Chief, Construction Management, Forestry Inspector, Public Works Inspector, Sediment Control Inspector, and Engineering Project Manager.

In addition, there will be separate on-site pre-construction conferences as required.

### **PERMITS**

The Contractor is responsible for complying with the following permits:

- Sediment Control Permit: There will not be a sediment control permit issued, however the contractor must follow all applicable sediment control requirements in close coordination with the City of Rockville Sediment Control Inspector.

It is possible that some Water Main Rehabilitation tasks will require the City to obtain outside agency permits such as a Maryland State Highway Administration (MDSHA), Montgomery County and/or Maryland Department of the Environment (MDE) permits or authorization. The contractor will be responsible for complying with these permits.

### **MEASUREMENT AND PAYMENT**

Progress payments will be based on the approved Schedule of Values for the project. The Schedule of Values shall mirror the Bid Form on the approved contract and shall provide a quantity and price for all items of the Contract

which, when added together, equal the Contract price. The Schedule of Values shall be broken into components as shown on the Bid Form, with each component further broken down as needed to track progress and allow the Engineer to make recommendations as to progress payments. Overhead and profit shall be included in each line item on the Schedule of Values. At least ten (10) days prior to submission of the first progress payment, the Contractor shall submit the proposed Schedule of Values to the City for review and approval. The contractor shall have ten (10) days to review comments and correct the Schedule of Values. No progress payments shall be made until the Schedule of Values has been approved.

All Items shall be paid based on the actual quantities used.

### **MOBILIZATION AND DEMOBILIZATION**

Mobilization shall include all activities and costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, and other necessary facilities for the Contractor's operations at the site; premiums paid for performance and payment bonds, including coinsurance and reinsurance agreements as applicable; and other items as specified in this specification.

Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not included in the contract from the site; including the disassembly, removal and site cleanup/repair of offices, buildings, and other facilities assembled on the site for this contract. This work includes mobilization and demobilization required by the contract at the time of the award for all access points shown on plans. If additional mobilization and demobilization activities and costs are required during the performance of the contract as a result of the changed, deleted, or added items of work for which the Contractor is entitled to an adjustment in contract price, compensation for such costs will be included in the price adjustment for the item or items of work changed or added.

The Contractor shall provide and pay all the cost for temporary utilities including electricity, telephone and water. All temporary facilities shall be available for the duration of the project. The Contractor shall be responsible for compliance with code ordinances and requirements of local officials for temporary facilities, controls, and related health and safety requirements. Electrical power is not available on the site. It shall be the responsibility of the Contractor to provide all necessary electrical service. In the event electrical power will not be available, it shall be the Contractor's responsibility to provide any necessary generator to continue construction.

The Contractor shall provide and pay all the cost for toilet facilities for all workmen, as required by local ordinances for complete and adequate sanitary arrangements. Sanitary facilities and the surrounding area shall be kept clean and neat at all times. They shall be located on the project site as approved by the City.

This work does not include costs for the contractor to operate and maintain general plant and equipment.

The cost for Mobilization and Demobilization shall be considered incidental to the Water Main Rehab work and no specific payment will be made.

### **CONSTRUCTION AS-BUILTS:**

The Contractor shall complete project as shown on approved plans. The Contractor shall use benchmark information as shown on the plans. The Contractor must provide as-built information. One set of redline as-builts shall be maintained and kept on-site at all times. Any deviations from approved plans shall be marked, in red, on the as-builts.

As-built information shall consist of any deviation to the approved plan such as grading limits, slopes, types/length/height of restoration features, and any modifications to typical details. As-built requirements do not include any topographic survey. The intent of this project is to follow the same line and grade of the existing water main.

Upon completion of project, submit as-builts for approval. As-builts shall be as per the Department of Public Works As-built Plan Requirements (See **Appendix C**). Retainage shall not be released until as-builts are approved. The costs for as-builts shall be considered incidental to the work and no specific payments will be made. The City will not require the Contractor to have the as-builts signed and sealed by a Professional Engineer.

### **SITE WORK**

All demolition, removal, and disposal must be performed according to the contract documents, approved plans and all applicable Federal, State and local laws, regulations and guidelines. Demolition shall generally be limited to removal of existing asphalt, concrete, pipes, structures and appurtenances as delineated and/or directed by the City Inspector in the field. Generally these materials are to be disposed of legally by the contractor however certain items, such as fire hydrants, will remain the property of the City and as such must be retained on site or delivered to the City's Maintenance Facility located on Rothgeb Drive off of East Gude Drive, in Rockville. Any cost to deliver said materials to the City shall be incidental to the overall bid price and will not be subject to any additional compensation.

Perform work so adjacent structures, equipment, paving and materials, which are to remain, shall not be damaged. If damage occurs, the Contractor must repair or replace the adjacent structures, equipment, paving and materials as directed by the City. Existing utilities damaged by demolition shall be replaced with the same material and quality as the existing utilities. Before construction begins, the Contractor shall inspect existing structures, equipment and paving that will remain in-place within and adjacent to the work area for existing defects and damage found during this inspection shall be documented in advance by the contractor and brought to the attention of the City Inspector prior to starting the project.

Perform the work in a manner that will not damage parts of the structure or facility not intended for removal. If, in the opinion of the City, the method of construction used may endanger or damage parts of the structure or affect the satisfactory operation of the facilities, promptly change the method when so notified by the City. Perform all cutting required regardless of whether such cutting is specifically indicated. No blasting will be permitted.

All equipment, materials, and piping within the limits of the construction, designated for removal, shall become the property of the Contractor.

Provide shoring and bracing during construction as necessary to protect personnel, structures and equipment. No special payment will be made for shoring and bracing. All costs shall be included with the appropriate pay item. Provide warning signs as required, for personnel and the public.

### **SPECIFICATIONS, STANDARDS AND DETAILS**

The City of Rockville, Standards and Details for Construction, are hereby made a part of this contract document. The Bidder must be familiar with any and all construction details and written specifications and requirements contained therein.

All materials, equipment, tools, plants, processes and procedures supplied or intended for use on this project shall conform to the Maryland Department of Transportation, State Highway Administration, Standard Specifications

for Construction and Materials, Washington Suburban Sanitary Commission and all addenda thereto. In the case of any conflicts between the MSHA Specifications, WSSC Specifications and these Special Provisions, these Special Provisions will govern.

#### **SITE ACCESS**

Access to the site is by public streets and thoroughfares. After the completion of the project, all roads, drives, private parking lots, sidewalks, landscaping, fences, utilities, structures, buildings, lawns and other facilities not designated for removal, relocation or replacement that are damaged by the Contractor's actions shall be restored to the same condition or better. Prior to any construction activities, it is the Contractor's responsibility to document any existing damage or conditions indicative of substandard facilities. Costs associated with this work shall be included with the appropriate Pay Item.

#### **ACCESS TO ADJACENT PROPERTIES**

Access must be maintained to all properties abutting this project at all times. All work affecting private properties is to be coordinated with the property owner by the Contractor. The Contractor shall maintain access to private driveways at all times unless specifically approved in advance by the City.

#### **ENTERING PRIVATE PROPERTY TO PERFORM WORK:**

The Contractor is to carefully examine the plans provided with the contract drawings to ensure a clear understanding of the private property limits and work limits. Under no circumstances is the Contractor to enter beyond the specified limits or perform any work that affects private property without advance notice to and permission from the private owner and the City.

#### **PROTECTION OF EXISTING FACILITIES:**

The project site is located within City streets, parks, open space, and adjacent to residential properties. All necessary precautions must be taken to protect property at or adjacent to the site including trees, shrubs, lawns, walks, fences, pavements, roadways, utilities, structures, buildings, and other facilities not designated for removal, relocation or replacement in the course of construction. Costs associated with this work shall be included with the appropriate pay item.

#### **PROTECTION OF WORK, PROPERTY AND PERSONS:**

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with this project. All necessary precautions shall be taken: to prevent injury to the Contractor's employees and other persons who may be affected by the project; to prevent damage to or loss of materials or equipment incorporated into the project; and to protect other property at or adjacent to the site including but not limited to trees, shrubs, lawns, walks, fences, pavements, roadways, utilities, structures, buildings, playgrounds and park facilities not designated for removal, relocation, or replacement in the course of construction including ensuring that adjacent roadways are kept clear of construction debris and dirt; and to provide warning signs as directed by the City for personnel and the public. Costs associated with this work are incidental to the work and no specific payments will be made.

#### **SECURITY/SENSITIVE DOCUMENTS**

"Sensitive" documents and information are defined as those that could reasonably be used to aid in or plan for contaminating or damaging the City's system or City customers. Examples of such documents include, but are not limited to:

- plans/blueprints, as-built drawings, or contract documents of City facilities
- plans/blueprints, as-built drawings, contract documents

For any document or information to be provided to the Contractor where there is uncertainty whether it is “sensitive”, the City shall have sole discretion to make such determination.

Contractors needing either electronic or hardcopy documents dealing with critical facilities or sensitive information will be required to make application with, and receive approval from the City prior to receiving this information. Permission to received said document will pertain only to the individual approved. Sensitive documents received from the City must be handled consistent with the terms of non-disclosure required for applications. Contractor is responsible to restrict use of sensitive document to project participants only and shall take appropriate measure to prevent distribution of sensitive documents to anyone inside or outside the Contractor’s company except Contractor’s project participants. After completion of project, all sensitive documents remaining in the Contractor’s possession shall continue to be governed under the terms of non-disclosure and must continue to be stored in a secure manner

### **CONTRACTOR SUPERVISION**

The Contractor shall supervise and direct all work under the contract. A qualified individual shall be designated in writing to act on behalf of the Contractor. This individual shall be present on the site at all times as required to perform adequate supervision and coordination of the work, including subcontractors. The designated representative shall be fluent in the English language and have good communication skills.

### **CONTRACTOR’S EMPLOYEES**

The Contractor’s employees shall present a professional appearance, shall be neat, clean, well groomed, courteous, and conduct themselves in a respectable manner while performing duties and while on City and/or private property.

The Contractor shall provide the City with a listing of all personnel assigned to the contract. In addition, the Contractor shall provide a listing of names, and emergency telephone numbers of supervisory personnel assigned to the contract. It will be the Contractor’s responsibility to keep this list up to date.

The City reserves the right to request that the Contractor remove any employee if it is determined that services are not being performed in accordance with the terms and conditions of the contract.

### **EMERGENCY INFORMATION**

The Contractor shall post information concerning emergency medical, fire, rescue and hazardous waste phone numbers from which personnel on the site can obtain information if needed. The Contractor shall also list the name and number of a representative of the Contractor who can be reached in case of an emergency. The emergency information shall be in a central position, located so it is visible and accessible 24 hours a day. The emergency information shall be posted the entire length of time that the Contractor is performing work at the site. The emergency information and Contractor contact information shall be submitted to the City prior to the start of construction.

### **PAVEMENT MARKINGS, SIGNS AND TRAFFIC SIGNAL SENSORS**

In reference to the pavement restoration and utility trenches, the City shall take the responsibility of providing pavement markings and reconnecting the traffic signal sensors when encountered. Both pavement markings and sensors are not included as part of this contract. Any traffic control or parking signs that need to be replaced shall be done by the City of Rockville Sign Shop. Temporary traffic control is incidental to the water main pay items.

**PUBLIC UTILITIES**

The Contractor shall contact Miss Utility at 1-800-257-7777 or 811 and City Utilities Division at 240-314-8567 at least 72 hours before excavating in the vicinity of public utilities.

Before interfering with any utility service, the Contractor shall notify the affected utility companies, and also all property owners, in advance, and coordinate any required service interruption with the owner and City Inspector including but not limited to electric, sanitary sewer, cable TV, and gas. If a water shutdown is needed, a minimum of 10 working days is required to notify the affected properties.

Comply with MDSHA Specifications under Sections GP 5.05, and GP 7.17 regarding public utilities.

It shall be the Contractor's responsibility to cooperate to the fullest possible extent with the utility owners in their work of adjusting the existing utilities to suit the proposed construction under this contract. All utilities, unless provided for on the contract drawings, shall be relocated or constructed by their respective owners.

The location of existing utilities shown on the plans and profiles are approximate only and it shall be the Contractor's responsibility to determine the exact location of the utilities prior to commencing work in all areas of possible conflict. All test pits must be completed in coordination with the City and the affected utility companies. The existence of utilities other than those shown on the plans is not known. If, during construction operations, the Contractor should encounter additional utilities, he shall immediately notify the City and take all necessary and proper steps to protect the continuance of service of such facilities.

In case of any damage to utilities by the Contractor, either above or below ground, the owner shall be immediately notified. The Contractor shall arrange for restoration of such utilities to a condition equal to that which existed before the damage was done, by repairing, rebuilding, or otherwise restoring as may be directed, and at the Contractor's entire cost and expense.

The Contractor shall take into consideration when preparing his bid the costs associated with the coordination during construction with various utility companies for any relocation or installation by the utility companies which may be necessary in areas within, or adjacent to, the limits of his contract. No additional compensation or time extensions will be allowed the Contractor for work interruptions, changes in construction sequences, changes in methods of handling excavation and drainage, and changes in types of equipment used, made necessary by others performing work within, or adjacent to, the limits of this contract. The contract time as stated in this contract includes the time needed for utility adjustments and no extension of time will be granted for delays caused by utility adjustments.

All other expenses likely to be incurred by the Contractor as a result of working around and protecting utilities, as well as cooperating with the owners of same during the relocating of such facilities, will not be measured or compensated for under any stipulated pay item.

**TEST PITS**

Complete all test pits as necessary to locate potential utility crossings and conflicts. Methods shall be as specified by Section 205 Test Pit Excavation of the *Maryland Department of Transportation, State Highway Administration, Standard Specifications for Construction and Materials*, and all addenda thereto. All test pit locations must be approved by the City prior to initiation. Contractor shall complete all test pits immediately after Notice To Proceed is issued. Any delay in the schedule due to utility conflicts found during test pitting must be communicated to the City Inspector immediately. Test Pits are incidental to the applicable Water Main Rehab items in the contract.

As a result of the EPA's updated Lead and Copper Rule Revision, the city must inform residents of the material of their private service line, or inform them that the material is unknown. As a contingent item, the city is requesting pricing to complete test pits upon request to determine private service line material. The contingent test pit pay item is not related to the water main and locating dry utilities within the right of way. Test pitting along the mainline or hydrant leads is incidental to the pipe installation labor price.

### **EMERGENCY CONTACT INFORMATION**

The Contractor shall provide the name(s) and phone number(s) of a representative(s) of the Contractor who can be reached in case of an emergency. This shall be submitted to the City prior to the start of construction.

### **CONTACTS**

The following utility companies and City departments may be affected by this project. It shall be the Contractor's responsibility to notify all utilities and/or City departments and coordinate his construction operations with them to avoid unnecessary delays.

- **City of Rockville**  
**Chief, Construction Management**  
Mr. Mike Wilhelm  
240-314-8542
- **City of Rockville**  
**Operations & Maintenance Superintendent**  
Mr. Steve Sokol  
240 -314-8567
- **City of Rockville**  
**Project Inspector**  
Mr. Michael Hershelman  
240-314-8543
- **City of Rockville**  
**Water Treatment Plant Superintendent**  
Mr. Glenn Maggard  
240-314-8556
- **City of Rockville**  
**Principal Civil Engineer**  
Mr. Matt Brew  
240-314-8516
- **City of Rockville**  
**Water and Sewer Utilities**  
240-314-8567
- **MISS UTILITY**  
1-800-257-7777 or 811
- **Pepco**

202-872-2845

- **Transcontinental Gas**  
410-465-0960
- **Verizon**  
855-983-1424
- **Washington Gas**  
844-927-4427
- **Washington Suburban Sanitary Commission (WSSC)**  
301-206-8650

For Locations of Utilities, call "MISS UTILITY" at 811, 1-800-257-7777 or <http://www.missutility.net/>

Before interfering with any utility service, the Contractor shall notify the affected utility companies and affected property owners in advance and coordinate any required service interruption with the owner and City. For any water service shut down, the Contractor must provide at least 21 calendar days' notice such that the City can provide proper notification.

The Contractor shall be responsible for contacting Miss Utility for the location of all utilities prior to the start of work.

#### **POSTING PARKING RESTRICTION SIGNS**

The Contractor shall be responsible for furnishing adequate personnel, equipment and sign stakes as necessary to post City furnished parking restriction signs a minimum of 48 hours and no more than 72 hours in advance of the construction operations for that particular portion of that street. The Contractor shall coordinate the schedule in advance with the City and shall mark the signs with the appropriate restriction dates. Parking may not be restricted for more than three consecutive dates without prior written City approval. Towing of parked vehicles shall be the responsibility of the City Inspector only. Vehicles will not be towed unless the City Inspector has verified that the proper parking restriction signs were posted a minimum of 48 hours in advance. The Contractor shall be responsible for revising the dates on the signs in the event of delays in the schedule and for the prompt removal of the signs when the paving operation is complete. The signing operation shall be closely coordinated with the City Inspector and no signs shall be marked, posted, revised, reposted, or removed without the City Inspectors advanced authorization. Signs and stakes shall be carefully removed and revised and reused until otherwise authorized by the City Inspector.

Stakes shall be 1" x 2", five feet long, driven a minimum of 12" into the ground or until stable.

Signs must be spaced no more than 40 feet apart. Where street trees exist and it is determined that their use will not damage the tree, the signs shall be placed approximately four feet above the ground. Where no street trees are available, signs must be placed on stakes provided by and installed by the Contractor. Black waterproof indelible markers shall be provided and used by the Contractor and numbers shall be large and legible.

No special compensation shall be paid to the Contractor for the posting of the no parking signs and shall be considered incidental to the appropriate pay item.

**NOISE CONTROL MEASURES:**

Construction activity shall occur within Rockville's standard working hours, Monday through Friday, 7:00 a.m. to 5:00 p.m. All work must comply with the noise ordinance requirements for Montgomery County. A copy of the "NOTICE TO CONTRACTORS" issued by the Montgomery County Department of Environmental Protection (DEP) is attached as **Appendix F** for observation and compliance.

**WATER POLLUTION CONTROL MEASURES**

The Contractor shall not discharge or permit discharge into the waters, canals, ditches, or drainage system any fuels, oils, bitumens, garbage, sewage or other materials which may be harmful to fish, wildlife or vegetation or that may be detrimental to outdoor recreation. The Contractor shall be responsible for investigation and complying with all applicable federal, state and local laws and regulations governing pollution of water. All work under this Contract shall be performed in such a manner that objectionable conditions will not be created in waters through or adjacent to the project areas.

The contractor shall submit a plan detailing how chlorinated water will be disposed of and/or treated prior to surface discharge. The plan must be approved by the City prior to testing any water mains or discharging of chlorinated water, in accordance with the WSSC Specifications, Section 02511 "Chlorination Water System", attached in Appendix G. Discharges of chlorinated water will comply with General Discharge Permit No. 17HT, attached in Appendix N.

**AIR POLLUTION CONTROL MEASURES**

All fine-grained, loose materials hauled to or from this project shall be covered to prevent spillage and blowing. Material, which is not covered after notification by the City, will not be accepted for use on this project. This material will not be included in measurement for payment. Burning will not be permitted.

**ENVIRONMENTAL PROTECTION MEASURES**

Impervious barriers, (i.e., plastic, metal drip pans, etc.) shall be placed under any compressors, generators, welding machines, etc., to prevent oils, solvents, organic compounds, or other contaminants from leaching into the soil. Any oils, solvents, organic compounds, or contaminants spilled on the site during the process of the work shall be immediately removed and cleaned up by the Contractor. Any earth contaminated by a spill shall also be removed and replaced with new certified clean material to the satisfaction of the City and the Maryland Department of the Environment (MDE). If the City has to remove the oils, solvents, organic compounds, contaminants, or earth, the City may deduct the costs of removal and clean up from the total contract amount owed the Contractor.

**EROSION AND SEDIMENT CONTROLS**

The Contractor is responsible for adhering to the City's laws and ordinances regarding sediment control. The Contractor shall be responsible for coordinating all work, and for notifying the City: Prior to removing sediment control facilities; and upon completion of final grading, establishment of ground covers and approved land stabilization. See **Appendix D** for Erosion and Sediment Control (ESC) Notes as well as ESC Best Management Practices for the Water Main Rehabilitation Program.

During the progression of all work, the Contractor shall make periodic inspection and maintain sediment control structures, including cleaning as directed or necessary, to insure that the intended purpose is accomplished. Under no circumstances shall sediment be allowed to enter private properties or existing stream.

When directed in the field by the City Inspector, the Contractor shall be required to make adjustments in location and/or increase or decrease quantities of sediment control measures and provide temporary stabilization measures.

All sediment control measures shall be installed and maintained as shown on the Contract Documents, approved plans and details per latest City of Rockville Standards, *Maryland Department of the Environment's Maryland Standards and Specifications for Soil Erosion and Sediment Control*, in compliance with the MDE/WMA Notice of Intent (NOI) General Permit for construction activities, and as directed by the City Inspector. Please refer to Maryland Department of Transportation, State Highway Administration's Specifications entitled, "*Standard Specifications for Construction and Material*", revisions thereof, or additions thereto. Comply with MSHA specifications section 308.02 Material and section 308.03 Construction.

Furnish and install temporary erosion and sediment controls. The Contractor shall protect the integrity of the erosion control measures installed. The erosion control measures shall be provided until such times as the temporary ground cover is sufficiently developed and the City Inspector gives written authorization to remove said measures. The Contractor shall comply with all local, state and federal laws, ordinances, and regulations pertaining to erosion, sediment and pollution control, including those promulgated by the State of Maryland, and shall indemnify and hold harmless the City from and against all claims, damages, losses and expenses resulting from such work.

The Contractor shall have an employee present on site at all times who has met the requirements for certification of responsible personnel in erosion and sediment control according Maryland State Law (Green Card). This employee shall have sufficient authority to install, maintain, adjust or otherwise implement approved sediment control measures.

The Contractor shall take all measures to control erosion and sedimentation at construction site, including borrow and waste areas and temporary access roads, and at off-site areas especially vulnerable to damage from erosion and sedimentation. All erosion and sediment control measures will be subject to approval by the City. All erosion and sediment control measures shall be implemented prior to any construction occurring. All temporary erosion and sediment control measures shall be removed within thirty (30) days after completion of construction and establishment of permanent erosion control.

Work shall be scheduled so that areas subject to erosion are exposed for the shortest possible time. Only those trees, shrubs and grasses shall be removed that are necessary for construction as designated by the forest conservation plan; those remaining shall be protected to preserve their aesthetic and erosion control values. Temporary on-site structures and buildings shall be located to preserve the existing landscape and to minimize erosion, including that from construction traffic. If practicable, work shall be scheduled in seasons when erosion is less of a hazard, particularly for sites with steep slopes and erodible soils.

Temporary protection shall be required for disturbed areas until final grading is completed and permanent vegetation is established, and shall consist of planting temporary grass cover or other vegetation when feasible. Other short-term protection shall include covering disturbed areas and topsoil piles with a mulch of hay, straw or wood chips, stabilizing with netting, or covering with plastic sheets. Graded slopes and fills shall be limited to an angle and to lengths that will maintain stability and allow easy maintenance. Construction equipment shall not be operated in a way to make the land more susceptible to erosion, such as leaving tracks up and down slopes. Access roads shall be located and constructed so as to prevent erosion.

Controls for surface water runoff shall be constructed as early as possible to prevent the formation of gullies or rills. These controls shall be maintained during the entire construction period or until permanent storm drains/revetments are completed. Diversion channels or berms, slope drains, flow barriers, dikes or other structures, which retard or spread water flow, shall control runoff. Compacted embankments, ditches, furrows or temporary diversions across slopes shall be provided to intercept runoff before it reaches erodible areas. Diversions and drains shall be directed into stabilized areas where the discharge can be spread out and dissipated.

If unusually intense storms cause planned control measures to fail prompt restoration and cleanup of sediment deposits shall be made, including damage to adjacent property. If construction is delayed or shut down, temporary cover of exposed and disturbed areas shall be provided.

#### **CARE OF WATER DURING CONSTRUCTION**

The Contractor shall furnish, install, test, operate, monitor, and maintain dewatering systems of sufficient scope, size, and capacity to control water flow into excavations and permit construction to proceed on dry, stable sub-grades. Dewatering operations shall be maintained to ensure erosion control, stability of excavations and constructed slopes, prevent excavation from flooding, and prevent damage to sub-grades and permanent structures.

The Contractor shall provide a suitable watercourse (i.e. fire hose, etc.) to direct the flow of water so as to have minimal impact upon the environment, private property, roadway and pedestrian traffic. Any damage caused by discharge of water is the responsibility of the Contractor. The Contractor shall not discharge any water so as to cause sediment to reach any storm drain inlet or water course.

The Contractor shall provide shoring, bracing and cofferdams during construction as necessary to protect personnel, structures and equipment. No special payment will be made for shoring, bracing or cofferdams. The Contractor is responsible for ensuring the safety of his employees and sub-contractors, and for complying with all applicable provisions of Maryland Occupational Safety and Health Administration.

The Contractor shall protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by dewatering operations. The Contractor shall provide an adequate system to lower and control water to permit excavation, construction of structures, and placement of fill materials on dry sub-grades. The Contractor shall install sufficient dewatering equipment to drain water-bearing strata above and below bottom of ponds and other excavations.

Work areas shall be dewatered in a manner that avoids endangering public health, property, and portions of work under construction or completed. The Contractor shall provide sumps, sedimentation tanks, dewatering basins or non-woven dewatering bags as required by the City Inspector. Standby equipment shall be provided on-site, installed and available for immediate operation, to maintain dewatering on continuous basis if any part of the system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, the Contractor shall restore damaged structures and foundation soils at no additional expense to the City. The Contractor shall remove all dewatering systems from project site on completion of dewatering.

#### **PRESERVATION AND RESTORATION OF PROPERTY & MONUMENTS**

The Contractor is to carefully examine the plans provided with the contract drawings to ensure a clear understanding of the private property limits and work limits. The Contractor shall not enter upon private property for any purpose without first obtaining permission from the City and written permission from the property owner. The Contractor shall be responsible for the preservation of all public and private property, including but not limited to plants (trees, shrubs, and seasonal vegetation), lawns, walks, fences, pavements, roadways, utilities, structures,

buildings, playgrounds and park facilities not designated for removal, relocation, or replacement, along and adjacent to the work areas, and shall use every precaution necessary to prevent damage or injury thereto. The Contractor shall take suitable precaution to prevent damage to underground or overhead public utility structures and must protect carefully from disturbances or damages all land monuments and property markers until the Project Inspector has witnessed or otherwise referenced their locations. All disturbed monuments and markers must be reset to their correct location by the Contractor at no additional compensation.

The Contractor shall be responsible for all damages or injury to public or private property of any character during the prosecution of the work, resulting from any act, omission, neglect or misconduct in his manner or method of executing said work satisfactorily, or due to the non-execution of said work, or at any time due to defective work or materials. When or where any direct or indirect damage or injury is done to public or private property or on account of any act, omission, neglect or misconduct in the execution of the work or in consequence of the non-execution thereof on the part of the Contractor, the Contractor must restore, at its own expense, such property to a condition similar or equal to rebuilding or otherwise restoring as may be directed by the City, or he shall make good such damage or injury in an acceptable manner. In case of the failure on the part of the Contractor to restore such property in a reasonable amount of time, or make good such damage or injury the City may, upon 24 hours' notice, proceed to repair, rebuild or otherwise restore such property as may be deemed necessary and the cost thereof will be deducted from any monies due or which may become due the Contractor under this Contract. City crews or another Contractor may accomplish said work.

After the completion of the project, all plants (trees, shrubs, and seasonal vegetation), lawns, walks, fences, pavements, roadways, utilities, structures, buildings, playgrounds and park facilities and other facilities not designated for removal, relocation or replacement that are damaged by the Contractor's actions shall be restored to the same condition or better. Prior to any construction activities, it is the Contractor's responsibility to document any existing damage or conditions indicative of substandard facilities. The Contractor shall provide pre-project photographs or videotape of the project work areas to the DPW Project Inspector. Costs associated with this work are incidental to the work and no specific payments will be made.

All of the requirements outlined above shall be considered incidental to this contract and no special compensation shall be paid.

#### **FOREST AND TREE CONSERVATION REQUIREMENTS**

The Contractor shall complete all forest and tree conservation requirements according to the approved contract documents:

- All forestry related work shall be under the direct supervision of someone who is both certified by the International Society of Arboriculture and registered in the State of Maryland as Licensed Tree Expert. Provide proof of both prior to on-site Forestry pre-construction meeting.
- Promptly replace any existing trees designated to remain that are damaged or destroyed in the course of development.

Special attention must be given the existing landscape features and special care taken to protect the natural surroundings. The roots of such trees or shrubbery will not be cut unnecessarily. The Contractor will be required to root prune the tree roots, which extend into grading limits and/or from trees intended to be left in an undamaged state or otherwise prevent damage to roots of trees. No road machinery of any description, which might throw off gas or smoke in such volume as to damage vegetation, shall be allowed to stand under such trees or shrubbery.

Any tree that in the opinion of the City, may be defaced, bruised, injured or otherwise damaged by the Contractor's equipment or operations must be protected prior to the start of work by means acceptable to the City. Contractor must verify all saved trees prior to construction. Prior to commencing construction, all tree protection techniques must be approved.

Any tree, or landscape features scarred or damaged by the Contractor's operations must be removed, correctively pruned, restored or replaced as nearly as possible to the original conditions, as required by the Project Inspector and at the Contractor's expense. No ropes, cables or guys are to be fastened to or attached to any nearby trees for anchorage or in lieu of placing of dead men.

### **INSPECTION AND CERTIFICATION**

All materials shall be subject to inspection or test by the City prior to installation and no previous certification or inspection shall bar rejection if the material is found to be damaged or defective. The certification requirements may be waived for any or all of the materials at the discretion of the City.

### **SUBMITTALS OF MATERIALS**

The Contractor shall submit two (2) copies of all delivery tickets, shop drawings, inspection, testing or certification reports, obtained approvals or permits, and other submittals required for this project to Mike Wilhelm, Chief of Construction Management for Rockville Department of Public Works.

### **CLEAN-UP**

The Contractor shall at all times keep the work areas clean and orderly and shall promptly remove all waste and rubbish. The daily debris shall be collected in covered containers and disposed of in proper fashion. All directions from authorized public officials having jurisdiction over health and safety shall be obeyed. The site will be "broom clean" at the end of each working shift. Open excavations may not be left unattended. Site must be secured each night.

Upon completion of the work, all materials, equipment, and appurtenances not required, as a part of the finished project shall be completely removed the site.

The Contractor shall clean every street upon which any work has been performed under this contract on a daily basis. The cleanup shall be accomplished by use of a vacuum assisted sweeper truck, manual (push) broom sweeping or other method as directed and or approved by the City Inspector. Under no circumstance shall the contractor use compressed air or jet water sprays for cleanup purposes.

### **INSPECTION AND REPAIRS**

The City reserves the right to inspect any and all work either in progress or completed. All work shall be inspected prior to backfill. Any portion of the work that is backfilled prior to inspection shall be uncovered at the contractor's expense to enable the Project Inspector to adequately inspect. If the work is found to be unsatisfactory or in conflict with the provisions in these specifications the City may hold back payment for work completed. The Chief, Construction Management, DPW will give written notification of the unsatisfactory work to the contractor. The Contractor shall have no more than 10 days to correct the condition.

### **TEMPORARY FACILITIES**

The Contractor shall pay all fees, obtain necessary permits, and have meters installed for temporary utilities as may be required for the execution of this contract. As needed, the Contractor through direct local arrangements must obtain temporary electric service for the purpose of this contract with the electric company, PEPCO. The Contractor shall furnish and install all necessary temporary service drops, wiring, connections, etc., necessary for

temporary service required by the Contractor. All costs associated with any temporary electric service required by the Contractor are considered incidental to other pertinent pay items. This item shall not be measured for payment.

The Contractor shall, at the beginning of the project, provide on the premises suitable temporary sanitary toilet facilities in accordance with the GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS. The City shall approve the location of the sanitary toilet.

### **STAGING AND STORAGE**

The Contractor is responsible for locating temporary staging areas which shall be approved by the City. Clean-up of each staging area shall occur within 48 hours of removal of all stored materials. Contractor shall cover topsoil, stone, and aggregate stockpiles with tarps to prevent sedimentation of the street.

Submit a sketch (a marked up set of plans is acceptable) and brief description for approval by the Chief, Construction Management showing the location of equipment and materials, location of portable sanitary toilet, and means and methods to protect pedestrians and existing public facilities (including trees) within the area as shown on the plans. This plan may have to be approved by the City Forester, if any grassed or tree areas will be utilized.

There shall be no payment for this work. Staging, storage and associated sediment control shall be considered incidental to the appropriate pay item.

Contractor to lease or rent a local storage area within 30 miles of Rockville City Hall for water main rehab material. Contractor shall procure and store sufficient material to construct at least 1.7 miles per year. The cost for the yard, security and material weather protection shall be incidental to the cost of the appropriate water main rehab pay item. Contractor will be reimbursed for only installed materials.

Contractor is responsible for water main material security and protection from the weather. Storage area should be secured and locked. Protection includes covering pipes and hydrants to protect against moisture such as a heavy-duty tarp. Additional protection includes storing valves, valve boxes, fittings, gaskets, corporations, bolt packs, etc. in a closed secured environment such as a shipping container.

The City reserves the right to inspect any materials while in storage or before installation. The City reserves the right to reject any material before installation.

### **AERIAL ELECTRIC LINES**

The Contractor must be aware that State law requires that a 10-foot radial clearance must be maintained for all construction equipment and materials in relation to electric lines carrying 750 volts or more. Because the State law is more stringent than the Federal laws, the State law must be considered the minimal distance.

### **MAINTENANCE OF STREAM FLOW**

Contractor shall provide maintenance of stream flow per the Maryland Waterway Construction Guidelines, Section 308 of the MSHA standard specifications, and as per the plans. The Contractor shall be responsible for dewatering all areas where necessary to perform work under this contract. All work shall be carried out in areas free from excessive water. The Contractor shall use necessary pumping and other equipment required for removal of water from the work area, and shall maintain the excavations, foundation, and other parts of the work area free from water, as required or directed by the City. After having served their purpose, all temporary protective

works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water.

The bypassing of clean base flow shall be accomplished by the use of a 12-inch or larger pump, utilizing a “quiet” brand of critically silenced Dri-Prime Pumps manufactured by Godwin, or an approved equal. Pumps shall be enclosed in 14-gauge sheet metal, lined with 1-inch and 2-inch layers of polydamp acoustical sound deadening material, to achieve a noise reduction to 69dBA at 30 feet. All exhaust pipes must be muffled. All pipe work shall be steel tubing and shall be secured in place during working hours.

Dewatering of sediment laden water shall use a “quiet” pump as described for clean water bypass of sufficient size to convey the sediment laden runoff from the area under construction. Since offsite water is not being diverted from the work area, the pump shall be adequately sized to convey offsite runoff that may enter the area under construction. All sediment laden runoff from the area under construction shall be filtered using a portable sediment tank, filter bag, or other MDE approved control.

Discharges from hoses or pipes shall outfall onto adequately sized rock for the outfall velocities of the pump around. In the event that bedrock is present bypass or treated flows may discharge directly onto the bedrock at that location.

Sandbags shall consist of materials, which are resistant to ultraviolet radiation, tearing and puncture, and woven tightly enough to prevent leakage of fill material (i.e., sand, fine gravel, etc.). Sheeting shall consist of polyethylene plastic, which is impervious and resistant to puncture and tearing.

Maintenance of stream flow shall be considered incidental to the appropriate pay item.

#### **SAMPLING AND TESTING OF MATERIALS**

Unless provided elsewhere in the contract documents, all required sampling and material testing shall be the responsibility of the Contractor. No separate payment will be made, and the costs shall be incidental to the appropriate pay item.

The City reserves the right to test all materials and construction separate from and in addition to the specific requirements dictated in this contract. Testing shall be generally limited to:

- Taking and/or collecting samples of soil and/or other backfill materials for proctor tests;
- Performing proctor tests in a lab;
- Performing compaction tests on site;
- Taking concrete cylinder samples and testing compression strength;
- Asphalt sampling and compaction testing.

Employment of a testing agency in no way relieves the Contractor of his responsibility and obligation to comply with all aspects of this contract and to perform all work in a proper, acceptable and workman like manner and doing all such work in full compliance with these contract documents.

#### **SAMPLING AND TESTING OF ASPHALT MATERIALS**

A Maryland State Highway (SHA) Certified Asphalt Plant must provide all asphalt supplied for this contract. Mix designs for the various types of material to be supplied must be submitted to the Project Inspector a minimum of 14 calendar days before beginning work. Under no circumstances will the contractor be allowed to begin supplying asphalt for this contract without the City and the Contractor having received written approval of the mix designs from the City or the City’s Asphalt Testing Consultant. The Contractor shall deliver to the City Project Inspector, a

box sample of the material to be supplied, each day prior to lay down operations beginning. Any material laid down without having a box sample delivered to the City Project Inspector, will be subject to complete removal and replacement at the Contractors expense. Any box sample failing testing by the City's Asphalt Testing Consultant will cause that days placed asphalt to be completely removed and replaced at the Contractors expense.

### **DISPOSAL OF MATERIALS**

All excess or removed materials from excavation operations shall become the property of the Contractor and must be removed from the site and legally disposed off-site. The City does not have a location or a dump site for spoils. The Contractor is responsible for finding a location for disposal of materials. Burning or burial of materials on site is not permitted.

### **TRAFFIC/PEDESTRIAN CONTROL**

All work shall be accomplished in a manner to minimize obstruction to vehicular and pedestrian traffic. The contractor shall abide by the conditions for construction traffic, as set forth in the latest edition of the Manual on Uniform Traffic Control Devices U.S. Department of Transportation Work Zone Traffic Control and/or the City Inspector's directives. All sidewalk closures shall have signage which directs pedestrians to open sidewalks.

It is the contractor's responsibility to post signs and re-route pedestrian and vehicular traffic away from the construction zone where appropriate. Contractor is responsible for controlling construction traffic entering and exiting park property, while ensuring pedestrian/user safety.

The Contractor shall provide the necessary temporary traffic controls in order to safely maintain pedestrian and vehicular traffic at all times in the City right of way and throughout City parks as directed by City Inspector. The Contractor shall provide a temporary traffic control plan (TTCP) in accordance with the latest edition of the Manual on Uniform Traffic Control Devices U.S. Department of Transportation Work Zone Traffic Control. The Contractor should utilize existing Maryland State Highway (SHA) standards and Montgomery County DOT standards for guidance. The Contractor shall provide a sketch of all proposed temporary traffic control devices for City approval prior to the start of construction for approval by the City. The sketch should show the current streets including cross streets and entrances and generally be shown to scale. The plan should delineate the proposed number of lane closures. The number of lane closures shall be minimized. SHA standard detail 104.02-10, or similar, is acceptable for lane closures but the TTCP also must address the sidewalk closure, if needed. Material deliveries, which only require temporary stoppages of traffic, shall be addressed in the TTCP, including the maintenance of vehicular and pedestrian traffic at all intersecting points of access, such as construction entrances and paths. Methods of controlling intersecting traffic shall include, but not be limited to, gates, barricades and/or flagging and shall be approved by the City Inspector. The placement and removal of temporary graded aggregate and/or hot mix asphalt to provide temporary access for vehicles and/or pedestrians during construction shall also be considered part of this work and as directed by the City Inspector.

This work will not be measured and the cost to maintain vehicular and pedestrian traffic shall be considered incidental to the Water Main Rehab work.

### **ADJUSTMENTS TO QUANTITIES**

The City may make adjustments to the location and/or quantity of work items without modification to the unit price. The City may direct that the location of a work item be adjusted. The City may also require an additional quantity of a pay item to be completed, whether or not shown on the plans. The quantity of a pay item may also be decreased. Payment shall only be made for items of work actually completed and accepted by the City.

**SUB-CONTRACTORS**

The Contractor shall have the right to sub-contract, but shall be fully responsible and cannot be relieved of any liability under this contract on account of any sub-contractor. All sub-contracting must have prior written City approval. The City reserves the right to approve or reject any sub-contractor.

Nothing contained in the contract documents shall create any contractual relationship between the City and any subcontractor or sub-subcontractor. If the Contractor subcontracts the delivery, installation, or any other portion of the work herein described shall submit, prior to construction, a description of the items/services to be subcontracted, and each subcontractor's name, address, and telephone number. During the life of the contract, the Contractor shall provide the name, nature, and extent of all subcontractors.

Any subcontractor shall be considered an agent of the Contractor, who shall be held fully accountable for all of the subcontractor services, labor, and materials relative to the contract.

**CHANGES IN WORK**

If an event arises which the contractor considers may result in the addition, deletion or modification to the contract, the Contractor shall notify the City prior to commencing work under that change.

**TECHNICAL CONTACT/PROJECT MANAGER**

Questions following contract award should be addressed to:

Mr. Matthew Brew, Principal Civil Engineer  
Rockville City Hall  
111 Maryland Avenue  
Rockville, MD 20850  
Telephone: 240-314-8516  
Email: [mbrew@rockvillemd.gov](mailto:mbrew@rockvillemd.gov)

## **SECTION IV: TECHNICAL SPECIFICATIONS**

### **EARTHWORK**

In general, except as otherwise noted herein and/or on the plans, earthwork shall conform to the requirements of Sections 201 through 211 of the Maryland Department of Transportation, State Highway Administration, Standard Specifications for Construction and Materials and all addenda thereto; and City of Rockville Geotechnical Notes. All excavation is unclassified. All references to measurement and payment in the MSHA specifications shall be disregarded. All excess materials from excavations including but not limited to soil, topsoil, turf, sidewalk, pavement, curb and gutter, piping, valves, blocking and other appurtenances shall be disposed of off-site in an appropriate and legal manner.

All trench backfill under the pavement areas shall be graded aggregate base (GAB) as per Maryland State Highway Standard Specifications for Construction and Materials Section 901. All trench backfill in grass areas shall meet the requirements of MD SHA, Section 916, for Common Borrow.

All fill, common borrow, and/or trench backfill shall be compacted according to the latest version of MSHA Section 204.

The Contractor will not be required to provide the 12-inch cut back unless the edge of the utility trench is within 2.5-feet of the gutter pan. Provide 6- inches of HMA Superpave 12.5 MM, PG64-22, Level 2 (two 3-inch lifts).

In the event a water main rehab project or task occurs on roadways within Maryland State Highway or Montgomery County rights of way and restoration requires a modified pavement detail, the City will negotiate with Contractor on compensation prior to issuing work authorization.

All fill and/or backfill material shall be free from organics, frozen material, rocks/stones greater than 1.5-inches in any dimension, waste metal products, unsightly debris, toxic material or other deleterious materials; shall be a minimum of 105 pounds per cubic foot for the maximum dry density according to AASHTO T-180, Method C; and shall not have a liquid limit greater than 30 nor a plasticity index greater than six according to ASTM D-4318. All other materials shall meet the requirements stated in Category 900 of the latest edition of the Maryland State Highway Administration (MSHA) Standard Specifications for Construction and Materials.

Immediately notify the City Inspector in the event unsuitable earth is encountered during earthwork or subsequent construction operations at or just below the final sub-grade elevation. Stop all work within the immediate vicinity of the unsuitable material. Do not remove any unsuitable material without obtaining written authorization and proper measurements from the City. Unsuitable material shall be removed from the site as soon as possible.

Dewatering is incidental to the applicable pay items.

Stockpile select excavated materials on site in a safe manner so as not to impede pedestrian or vehicular traffic. The City Inspector shall approve stockpile locations. Shape and grade stockpiles so as to prevent surface water ponding. Stabilize or cover stockpiles as necessary or as directed by the City.

**CLEAR AND GRUB**

Provide barricades, coverings, tree protection fence or other protection as necessary to prevent damage to existing trees.

It shall be the responsibility of the Contractor to walk the limits of disturbance/clearance with the City Forester, Engineer or his representative before clearing operations begin.

Protect existing trees and other vegetation indicated to remain in place, against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, smothering (by stockpiling construction materials or excavated materials within the drip line), excess foot and/or vehicular traffic, and parking of vehicles within the drip line. Provide temporary fences, barricades or guards as required to protect the trees and vegetation to be left standing.

Repair or replace trees damaged by construction operations in a manner acceptable to the City Forester. Repair tree damage by a certified tree arborist. Replace trees, which cannot be repaired and restored to full-growth status, as determined by City Forester.

Clearing shall consist of removal, at ground level, of trees, brush, shrubs, grass, weeds, other vegetation, down timber, rotten wood, rubbish, fences, incidental structures, bituminous and concrete paving, and general debris within the limits of disturbance as shown on the plans.

Grubbing shall consist of removal of stumps, roots, stubs, foundations, and other buried items and debris, which interfere with this work. Such removal shall be carried out to a depth of not less than two (2) feet below sub-grade or sub-base levels.

Remove all waste material from the City property and legally dispose of it.

**TOP SOIL**

Furnished topsoil shall be natural, friable surface soil uniform in color and texture and not supplied from the project. Topsoil must be free from any parts of Johnson Grass, Canada Thistle, or Phragmites.

Furnished topsoil shall consist of screened natural surface soil or manufactured topsoil containing rocks or stones no greater than ½ inch in any dimension. The topsoil shall have an organic content of between 1.5% and 10% by weight. Furnished topsoil shall have a pH value of not less than 6.0 and no more than 7.5; and lime shall be applied and incorporated with the furnished topsoil as specified. Other soil amendments shall be applied as directed by the City.

Grading analysis shall be as follows:

Sieve	Minimum Percent Passing by Weight
50 mm (2in)	100
4.75 mm (No.4)	90
2.00 mm (No. 10)	80

Topsoil shall meet the analysis of sand, silt, and clay when determined in accordance with AASHTO 88 with the following exception:

<b>Fraction Sizes</b>	<b>Percent Passing by Weight</b>
Sand (2.0-0.050 mm)	20-75
Silt (0.050-0.002 mm)	10-60
Clay (less than 0.002 mm)	5-30

Topsoil shall not be delivered until samples have been approved by the City.

Immediately prior to being covered with topsoil, the prepared surface shall be in a loose condition, raked or otherwise loosened. Before the placing of topsoil, all construction work in the area shall have been completed.

Topsoil shall be placed and spread over the areas designated to such a depth that, after natural settlement, the completed work shall be in accordance with the thickness, lines, grades, and elevations shown on the Plan Set. At a minimum, finished top soil elevations shall be flush or even with existing surfaces such as top of curbs and edges of sidewalks so as not to present a trip hazard.

Quality Assurance: Use MSHA Standard Specifications for Construction and Materials, July 2008, Section 920.01, or most current version. Contractor is to supply one test sample analysis from a qualified geo-technical lab for each source of topsoil used.

#### **SEED AND MULCH**

Complete all seed and mulch operations according to contract documents, approved plans and in accordance with applicable published standards and specifications and the most current "Maryland Standards and Specifications for Soil Erosion and Sediment Control."

Harrow, disc, or otherwise loosen subsoil to a depth of four inches. Remove objectionable material such as stones, two inches or larger, clods, brush, roots and trash from the top four inches of soil. Apply fertilizer and limestone at the rates specified below or provide soil testing results and fertilizer recommendations by an approved laboratory. Thoroughly mix fertilizer and limestone into the top six inches. Moisten seedbed during periods of high temperatures and when directed by the City. Apply seed mixture uniformly with mechanical power driven seeders, mechanical cyclone hand seeders or hydroseeding equipment. Slurry for hydroseeder may contain seed and fertilizer only.

Permanent seed mix shall be as follows:

- 10% Hybrid Kentucky Blue Grass, 85% germination
- 70% Tall Fescue, 90% germination (3 different hybrid mix, equal percentages)
- 20% Hybrid Perennial Rye, 85% germination

The tall fescue shall be improved turf-type tall fescues such as Falcon, Finelawn, and Wrangler. K-31 tall fescue is not acceptable. Manhattan or Pennfine are acceptable types of perennial ryegrass. All seed is to be certified. The seed shall be applied at a rate of 6-lbs. minimum per 1000 square feet. All seed shall have a minimum purity of 95%, minimum germination of 90%. A maximum other crop content of 0.1 % and maximum weed content of 0.1 %. Seed all disturbed areas, unless directed otherwise by the City.

Hybrid grass seed shall be from the most recent Maryland seed list and submitted to the City for approval. Apply at a minimum of 6 pounds per 1000 square feet.

Mulch all seeded areas with straw applied 2 inches deep. Sew mixture between the dates of March 1 and May 31 or between the dates of August 15 and October 31. Apply ground agricultural limestone at a rate of 92 lbs. / 1000 sf. Apply 0-20-20 fertilizer with the limestone at a rate of 15 lbs. per 1000 square feet. Immediately prior to seeding, supply 10 pounds of 38-0-0 ureaform and 12 pounds of 10-20-20 or equivalent per 1000 sf.

If planting cannot be accomplished within the dates noted above, apply temporary seeding and mulch. Install mulch as specified above. Lime and fertilizer requirements shall be as noted above. Temporary seeding and mulch shall be considered incidental to the contract.

Contractor shall plant site with permanent seeding and mulch as specified above within the allowable dates in addition to the temporary seeding. No additional payment will be made if both temporary and permanent soil preparation, seeding, mulch, limestone or fertilizer is required.

### **SAW CUT**

Saw Cutting asphalt or concrete must be completed per the approved plans, specifications and contract documents. Methods and materials must be per MSHA Specifications 522. Full depth saw cutting is required for all utility trenches. This work is considered incidental to the project and all costs shall be included with the appropriate pay item.

### **PRECAST STRUCTURES**

The Contractor may only use precast structures that have been approved for use by WSSC or that meet the details shown on the plans. Precast structures shall be designed for HS20 loading. The Contractor shall be responsible for engineering modifications and field stakeout to piping alignments and other components if required to accommodate the precast units. Prior approval by the City Chief of Construction Management is required via shop drawing review.

### **CONCRETE CURB AND GUTTER**

Curb and gutter shall be installed per Montgomery County Department of Public Works & Transportation (MCDPW&T) Standard 100.01, as specified in the contract documents. Methods and materials shall be in accordance with Section 620 Curb, Combination Curb and Gutter, and Monolithic Median of the Maryland State Highway Administration Standard Specifications for Construction and Materials, dated July 2008 and all addenda thereto. Dispose of old curb and gutter legally offsite.

Set forms to proper line and grade. Construction joints shall be at 10-feet on center or as directed. Saw cut construction joints to a minimum of 2-inch depth throughout the top, face and gutter surfaces. Seal the construction joint with a bituminous joint sealer as approved by the Maryland State Highway Specifications. Expansion joints shall be placed at every PT, PC, and storm drain inlet face with a minimum of one for every 100 linear foot of curb. If the curb being installed is equal to or less than 30 linear feet in length between sections of existing curb, only one expansion joint is required, but all construction joints must be sealed.

When using wood forms for curb returns, they must be made to accept metal joint plates, or as directed by the City Inspector.

All curb and gutter joints shall be sealed in the gutter portion within 24 hours after concrete placement with an approved joint sealing compound meeting ASTM D-11900 (Hot Application) or ASTM 1850 (Cold Application).

When removing concrete it should be removed as directed by the City Inspector. If a joint is not available or if the joint at the removal point is a weakened plane joint with insufficient depth to provide a clean break, a sawed joint will be required as directed to prevent damage to adjacent concrete. This will be considered incidental to the work. The Contractor shall take necessary precautions to protect adjacent existing concrete and asphalt surfaces from any damage during demolition or replacement of the removed concrete.

### **HOT MIX ASPHALT PATCHES**

**Construction.** The existing asphalt pavement shall be removed to the full depth and the full perimeter of the designated area as marked by the State and/or City Inspector. The existing paving shall be cut by means of a perpendicular saw cut or other acceptable method as approved by the State and/or City Inspector. The area removed shall be neatly and squarely removed with no ragged edges or damage done to the surrounding asphalt areas.

**Weather Restrictions.** Refer to SHA Standard Specs. Section 504.03.02

**Subgrade Preparation.** The City Inspector shall evaluate the existing subgrade to determine if it is suitable as a foundation for the patch. If it is determined to be suitable but unstable, it shall be compacted as specified in SHA Standard Spec. Section 501.03.10 to the satisfaction of the City. If it is determined to be unsuitable, it shall be removed and replaced with graded aggregate base (GAB) conforming to SHA Standard Spec. Section 501. The replacement aggregate material shall be compacted in layers of 4-inches maximum depth each layer. The Contractor shall haul the existing asphalt material that is removed away from the repair site immediately.

Protection of the subgrade after preparation shall be the responsibility of the Contractor. No payment will be made for removal and replacement of subgrade that was not protected properly.

**Emergency Filler.** The Contractor shall have readily available sufficient graded aggregate to completely fill the void of the repair area. The material shall be subject to the approval of the City Inspector and shall be placed and compacted in the void. The material shall be removed immediately prior to placement of the HMA.

**Temporary Patch Construction.** Prior to placing the HMA, the exposed vertical surface of all adjacent pavement shall be thoroughly cleaned and tack coated in conformance with SHA Standard Spec. Section 504.03.04. HMA shall be placed in lifts not exceeding three (3) inches each. The HMA shall be placed and spread by shovel, rake or other method as approved by the City Inspector. The finished surface of the HMA patch material shall match the existing grade of the surrounding roadway surface. HMA shall not be placed on frozen subgrade.

### **HOT MIX ASPHALT**

**Description.** The work shall consist of providing all labor, material, equipment and supervision necessary to provide and construct a hot mix asphalt (HMA) surface pavement per the contract documents. The exact limits of paving shall be as directed by the City in the field.

**Materials.** All materials shall conform to the Maryland Department of Transportation, State Highway Administration, Standard Specifications for Construction and Materials, and any addenda hereto (hereafter referred to as SHA Standard Specs.).

Tack Coat - Section 904  
 Aggregate - Section 901, Table 901C and 901D for HMA  
 Hot Mix Asphalt (HMA) – Section 904  
 Crack Filler - Section 911.01  
 Production Plant - Section 915

The asphalt pavement shall be HMA Superpave 12.5 MM, PG64-22, Design Level 2 (6-inches, two lifts).

### **TESTING OF MATERIALS**

The City requires testing for all materials and construction performed under this contract. The Contractor is responsible for testing and sampling, and shall fully cooperate with the City in accomplishing these tasks.

Employment of a testing agency in no way relieves the Contractor of his responsibility and obligation to comply with all aspects of this contract and to perform all work in a proper, acceptable and workman like manner and doing all such work in full compliance with these contract documents.

The Submittal Requirements shall be as per WSSC Standard Specification Section 01330 “Submittal Procedures” (Appendix H) and Section 01450 “Quality Control” (Appendix I) with the “City of Rockville Chief of Construction Management” substituting references to the Commission and the Engineer.

### **MAINTAIN EXISTING UTILITIES**

The Contractor is required to contact Miss Utility at 1-800-257-7777 or 811 and City Utilities Division at 240-314-8567 at least 72 hours before excavating in the vicinity of public utilities.

Before interfering with any utility service, the Contractor is to notify the affected utility companies, and also all property owners, in advance, and coordinate any required service interruption with the owner and City Inspector including but not limited to electric, sanitary sewer, cable TV, and gas. If a water shutdown is needed, a minimum of 10 working days is required to notify the affected properties.

### **WATER AND APPURTENANCES:**

Should a conflict arise between the conditions under this document and the General Conditions and Standard Specifications and/or Details of the WSSC, the conditions set forth herein shall govern. Where references herein provide, the “WSSC” or “Commission” or “Engineer”, substitute “City of Rockville”. For all references for contacting Miss Utility, the City of Rockville must also be contacted. Call the City Utilities Superintendent at 240-314-8567, at least 72 hours in advance of initiating work.

General – All water pipes, valves, fire hydrants and related appurtenances are to be furnished and installed by the contractor and must be provided in accordance with the latest edition of the WSSC Standards and Specifications and approved contract documents. All pipes and joints are to be restrained.

The Contractor is advised to contact Miss Utility at 1-800-257-7777 and City Utilities Division at 240-314-8567 at least 72 hours before excavating in the vicinity of public utilities.

Before interfering with any utility service, the Contractor is to notify the affected utility companies, and also all property owners, in advance, and coordinate any required service interruption with the owner and City Inspector.

Any water distribution materials designated for removal shall be disposed of off-site in an appropriate and legal manner. Care shall be taken during the removal of fire hydrants, valves or other fittings that may be salvaged for future use by the City. The City shall inspect any existing valves, fire hydrants or other fittings once out of service. If the City determines that any of these are worthy to salvage then they are to be delivered to the City Maintenance Facility off of Rothgeb Drive (near Gude Drive and Southlawn Lane). Otherwise all removed water distribution materials shall become the property of the Contractor.

Horizontal deflection of pipe shall be accomplished in accordance with manufacturer's specifications.

Any galvanized house connection encountered during construction must be entirely removed and replaced between the main and water meter.

Water Main Tests – All test equipment and labor are to be furnished by the Contractor and the costs for same are to be included in the appropriate pay items for furnishing and installing water mains.

The Contractor is to chlorinate the water main sections in accordance with the WSSC Specifications, Section 02511 "Chlorination Water System", attached in Appendix G. No payment will be made in the provision of and complying with requirements set forth in this section and the cost thereof will be considered incidental to the Contract. The contractor shall submit a plan detailing how chlorinated water will be disposed of and/or treated prior to surface discharge. The plan must be approved by the City prior to testing any water mains or discharging of chlorinated water.

The contractor will measure and record pre and post chlorine levels during bypass activities and new main flushing tasks.

Water Service Interruption – Prior to beginning any water main connections, the Contractor shall test pit all proposed water main connection locations to determine exact location and depth of existing facilities as shown on the plans. Test pits must be done in advance of construction and shall be considered incidental to the water main pay items.

The Fire Department must be notified a minimum of 24 hours in advance of shutting down any water system.

Cover – All water mains to be installed with minimum 3.5 feet of cover below finished grade or 3.0 feet of cover below finished sub-grade.

Pavement Restoration – Contractor must provide pavement restoration of affected roadways as per the contract documents. See Appendix J for pavement restoration details. Utility trench width is equal to 30-inches (2.5-feet). If the utility trench is within 2.5-feet of the gutter pan, remove and replace asphalt with 6-inches of HMA Superpave 12.5 MM, PG64-22, Level 2 (two lifts).

The Contractor will not be required to provide the 12-inch cut back unless the edge of the utility trench is within 2.5-feet of the gutter pan. The pavement restoration shall be as per page 22 of 171. Provide 6-inches of HMA Superpave 12.5 MM, PG64-22, Level 2 (two 3-inch lifts).

The contractor shall adhere to the utility trench widths specified. If the need for a wider trench arises due to poor soils, trench boxes, etc., the Contractor must first obtain approval from the City before exceeding

the specified widths. The Contractor will be compensated for the approved pavement restoration as measured by the City Inspector as per the contract documents.

In the event a water main rehab project or task occurs on roadways within Maryland State Highway or Montgomery County rights of way and restoration requires a modified pavement detail, the City will negotiate with Contractor on compensation prior to issuing work authorization.

Water Main Abandonment – All pipes to be abandoned shall be filled with either lean concrete or flowable fill, and capped on both ends. The City does not anticipate any water main abandonments. If abandonments using lean concrete or flowable fill are needed during construction, the City will negotiate with the Contractor to determine compensation. Water main abandonments shall be completed as per WSSC Specifications.

By-Pass Lines – Material to be used for temporary by-pass water piping must conform to WSSC Standard Specification, Section 02510 and Section 02512 (See Appendix K). Backflow prevention is required on all by-pass systems. All water services within the project area must be maintained throughout the construction period (by-pass operation). By-pass piping, fittings, appurtenances, etc. are not reimbursable material items in the Water Main Rehab contract. Temporary by-pass piping is incidental to the water main rehab pay items.

All sections of temporary by-pass lines that cross sidewalks, roadways or driveways shall be ramped with a bituminous cold patch or hot mix. Protection of driveways shall be provided to prevent discoloration from the bituminous material (e.g., plastic sheeting). By-pass lines at road crossings, sized 4-inches in diameter and larger, shall be placed below the existing road grade. Sections of by-pass or services that cross sidewalks, roadways, etc., shall be adequately protected at all times with barricades and fluorescent paint as directed by the City. The layout of by-pass piping will be designed to minimize inconvenience to pedestrians and homeowners. The preferred location is placement behind the curb and/or sidewalk. The locations, means and methods must be approved by the Chief, Contract Management, in advance of placement. Sand bags must be used every 40 to 50-feet to secure bypass pipe in place. During by-pass operations, water access for the fire department must be accommodated (4.5-inch connection nozzle with 4 threads per inch) every 500-feet.

The contractor must submit a project phasing plan and temporary by-pass piping layout to the City prior to the commencement of each project. Submission of these plans is required at the preconstruction meeting. City will provide copies of the construction drawings to the Contractor. The temporary by-pass pipe layout shall include at a minimum, 4-inch pipe for the entire length of each project phase on one side of the street. Water access for the fire department must be accommodated (4.5-inch connection nozzle with 4 threads per inch) every 500-feet. The by-pass piping size (opposite the fire access side of the street) shall be determined during the City's review of the submitted project phasing and by-pass piping plan. The minimum by-pass piping size shall be 2-inches.

Each project shall be divided into phases of which the maximum street length shall not exceed 1,000 feet. For each project phase, all main line and house connections must be installed and activated, new valves installed, existing valves removed, pavement restoration complete and the construction area cleaned up before installing additional water mains, i.e. proceeding to the next phase.

Freezing Weather – During freezing, storm or inclement weather, no work shall be done except that which is incidental to project unless otherwise directed by the Chief, Contract Management. Do not install by-

pass pipe or service connections during freezing weather. Remove, drain and/or protect such pipes already in use.

Off-Duty Contact Person – In reference to the Water Main Rehab tasks/projects, the Contractor shall make available a contact person with authority to activate sufficient people and equipment to deal with any emergency situation, which may arise at any time.

At 3:00 p.m., on every contract workday, the Contractor contact person shall call the City Dispatch office at 240-314-8565 and provide to the City Dispatcher his name, telephone number and pager number. He shall also request the Dispatcher to activate his pager so that he and they can confirm the pager is working properly. Contact person shall also notify the Project Inspector at 3:00 p.m. each contract workday and supply the name, telephone number and pager number.

### **WATER MAIN MATERIALS**

Prior to each project authorization, the Contractor(s) must submit standard catalog cuts of Pay Items 1-6 proposed to use on this contract. These shall include all water mains, fire hydrants, valves, tees, crosses, restraining glands/fittings, reducers, copper and fittings for water service connections and all appurtenances. By-pass piping is not a reimbursable material item in this contract. The Contractor(s) shall obtain pricing from at least three (3) material suppliers and submit to the City for review and approval. At least one quote must be obtained from one of the following water main material suppliers:

Ferguson Waterworks  
295 Interstate Circle  
Frederick, Maryland 21704  
301-668-5470

HD Waterworks Supply  
2930 Industrial Park Drive  
Finksburg, Maryland 21048-2312  
(410) 833-4300

LB Water Service  
7111 Geoffrey Way  
Frederick, Maryland 21704  
301-874-2560

Once approval of the proposed supplier and materials is granted by the City, no substitutions will be allowed without a complete re-submittal, review and approval by the City. Upon installation of the materials, the contractor will submit paid invoices and sufficient support data to the City inspector for review, approval and reimbursement of incurred costs. The City will reimburse actual costs for installed material. No mark-ups are allowed.

Invoices for Water Main Rehab Pay Items 1-6 material, as well as Pay Items 13 and 14 (vaults and all appurtenances) shall be submitted to the Construction Management Division to substantiate costs to the Contractor.

The City will reimburse the Contractor for materials at the Contractor's costs. Contractor's cost is the actual invoice cost of material to the Contractor from the supplier (F.O.B. Contractor's Facility). No

markups are allowed. Upon installation of the materials, the contractor will submit paid invoices and sufficient supporting data to the City inspector for review, approval and reimbursement of incurred costs. Contractor is responsible for all materials including staging and storing until acceptance by the City. The City reserves the right to furnish any or all material for work performed under this Contract. Normally, the Contractor will furnish required material. Due to supply chain issues and material availability, also see the Staging and Storage section within the Special Provisions regarding a local storage area and purchasing material.

**CONSTRUCTION STAKEOUT AND SURVEY:**

The vast majority of the water main replacements are along the same line and grade within roadways. There may be situations where the alignment is modified to avoid conflicts. The City will not provide nor require construction stakeout. The Contractor may find situations where some stakeout is necessary to ensure proper line and grade as per the construction drawings and existing conditions. Public Work Maintenance Division will mark the existing water mains and the Contractor is responsible to verify the main's location.

## SPECIFICATIONS – WATER MAIN REHABILITATION PROGRAM (Part A)

### WATER MAIN REHABILITATION PROJECTS

See **Appendix A and B** for the 5-year schedule. Total water main upgrade is approximately 48,000 LF over the next 5 years. Projects may also include sections of new water main where a water main did not previously exist. Projects are planned along City streets, however there is a possibility that water main rehabilitation will occur across, within or along Montgomery County and/or Maryland State Highway Administration (MDSHA) rights of way.

- A. The bid award is tentatively scheduled for award by the Mayor and Council in early calendar year 2023. The City may award to one or more Contractors to perform Water Main Rehab tasks.
- B. The Contractor shall provide all labor, materials (except for water main pay items 1 thru 6; and 13 and 14), tools and equipment necessary for the completion of the water main rehabilitation pay items.
- C. The City may make adjustments to the location and/or quantity of items without modification to the unit price. The City may direct that the location of a work item be adjusted. The City may also require an additional quantity of a pay item to be completed, whether shown on the plans or not. The quantity of a pay item may also be decreased. Payment shall only be made for items of work actually completed and accepted by the City.
- D. All lump sum pay items will be prorated for each pay estimate. A percentage of the lump sum item will be paid based upon the amount of work completed and accepted by the City. The Contractor shall provide a Schedule of Values for each lump sum item detailing labor, materials, equipment, and tools.
- E. Each street(s)/project assigned will have its own construction duration. The City will issue a “work authorization” letter and purchase order for each separate project (See **Appendix A and B** for project listing and locations). Each such written notice will describe the project, specify the date, time and location of the preconstruction meeting, establish the construction schedule (start and end), include a set of construction drawings and provide the name of the approved material supplier. Construction duration for each project will be determined based on an average of 45 calendar days per 1,000 linear feet of water main including installation and removal of temporary by-pass system, main line tie-ins, reconnection of water house connections and restoration. The City reserves the right to adjust completion dates prior to issuance of the work authorization based on its sole evaluation of the complexity of the work.
- F. Typical schedule of water main rehab activities prior to starting construction:
  1. City distributes water main design drawings and budget sheet (estimated pay item and material quantities) to the contractor.
  2. Contractor obtains three material quotes, establishes a project schedule, and prepares bypass and phasing plans.
  3. Via a “work authorization” letter (referenced in E above), the City will establish start and completion, project cost, bypass/phasing approval and the approved material supplier.

The approved budget sheet establishing the project cost will also be attached to the authorization letter.

4. City issues a Purchase Order which shall serve as the Contractor's Notice-To-Proceed (NTP). A purchase order will be issued for each water main project.
- G. Bypassing piping must be deactivated (drained) between November 15 and March 1, weather permitting.
  - H. When necessary, the contractor may be required to provide multiple crews in order to complete the scheduled water main projects within the City's fiscal year.
  - I. **Time is of the essence for this project and any delays from the agreed upon contract schedule dates will inconvenience the public and result in losses to the City. The loss and damages will be difficult to determine. By submitting a bid proposal (offer) in response to this IFB, the Bidder specifically agrees that if awarded a contract from this IFB and if the Bidder as an awarded contractor fails to complete each individual "work authorization" in accordance with its specifications, requirements and times, the amount of \$400.00 up to the total value of contract shall be deducted from the monies due the awarded Bidder (Contractor) for each intervening calendar day that each individual "work authorization" is not completed, not as a penalty, but as liquidated damages. However, the awarded Bidder (Contractor) will not be liable if failure to perform arises out of causes beyond its reasonable control and without fault or negligence of the awarded Bidder (Contractor).**
  - J. The City shall recover such liquidated damages by deducting the amount thereof out of any moneys due or that may become due the Contractor, and if said moneys are insufficient to cover said damages, and then the Contractor or the Surety shall pay the amount due upon demand by the City.
  - K. Items in the bid proposal form with pay item names that include the term 'contingent' are considered to be contingent and may have the quantity increased or decreased or deleted in its entirety from the contract at the sole discretion of the City. Any increase or decrease in the quantity of these items, or their deletion will not be considered justifiable claim for compensation. Contingent items may or may not be used in the bid evaluation.
  - L. For Pay Items 1 through 6, see the water main materials section regarding the storage, purchase and reimbursement of materials.

#### **DESCRIPTION OF PAY ITEMS**

Provide all labor, tools and equipment necessary for the completion of the following pay items. Some pay items include material.

The City may make adjustments to the location and/or quantity of temporary work items without modification to the unit price. Temporary items include sediment and erosion controls, and test pits. The City may direct that the location of a work item be adjusted. The City may also require an additional quantity of a pay item to be completed, whether or not shown on the plans. The quantity of a pay item may also be decreased. Payment shall only be made for items of work actually completed and accepted by the City.

All lump sum pay items will be prorated for each pay estimate. A percentage of the lump sum item will be paid based upon the amount of work completed and accepted by the City.

Quote unit prices below to include overhead, profit, taxes, insurance, and other applicable fees and costs.

**Item No. 1     6, 8, 12 or 16-inch DIP Water Main**

Install 6, 8, 12 or 16-inch ductile iron pipe (DIP), cement lined, Pressure Class 350 and all appurtenances as per contract documents and WSSC Specifications. Work includes all labor, unclassified excavation, trench protection, polyethylene encasement, saw cutting, temporary by-pass service for all mains and service connections (includes all temporary by-pass materials), removal of asphalt/concrete, removal of pipes and appurtenances, disposal of all excess materials, bedding and connections to existing water mains. Work shall include restoration and replacement of disturbed areas (fine grading, seed and mulch) as per contract documents. This pay item includes all service connections (greater than 2-inches), fire hydrant leads, temporary traffic control measures, testing (by-pass and water mains) and the removal of all temporary by-pass services.

All testing, including compaction, concrete, pressure and chlorination (bacteria) testing is the contractor's responsibility. **The contractor will be paid either 'A' Depth or 'B' Depth depending on pipe invert.**

**Item No. 1a     6, 8, or 12-inch DIP Water Main ('A' Depth)     Unit Price – Linear Foot (LF)**

This pay item is for water main installations where the pipe invert is located between 0 and including 6-feet ('A' Depth), measured from existing grade down to invert of pipe.

**Item No. 1b     6, 8, or 12-inch DIP Water Main ('B' Depth)     Unit Price – Linear Foot (LF)**

This pay item is for water main installations where the pipe invert is located between 6 and 9-feet, ('B' Depth) measured from existing grade down to invert of pipe.

**Item No. 1c     16-inch DIP Water Main ('A' Depth)     Unit Price – Linear Foot (LF)**

This pay item is for water main installations where the pipe invert is located between 0 and including 6-feet ('A' Depth), measured from existing grade down to invert of pipe.

**Item No. 1d     16-inch DIP Water Main ('B' Depth)     Unit Price – Linear Foot (LF)**

This pay item is for water main installations where the pipe invert is located between 6 and 9-feet, ('B' Depth) measured from existing grade down to invert of pipe.

**Item No. 2     6, 8, 12 or 16-inch Water Valves**

Install 6, 8, 12 or 16-inch valves (direct bury) per City of Rockville specifications. Work includes all labor, unclassified excavation, trench protection, polyethylene encasement, saw cutting, removal of asphalt/concrete, removal of fittings and appurtenances, disposal of all excess materials and connection to water mains as per contract documents.

**Item No. 2a     6, 8, or 12-inch Water (Gate) Valves     Unit Price – Each (EA)**

**Item No. 2b     16-inch Water (Butterfly) Valves     Unit Price – Each (EA)**

**Item No. 3     Fire Hydrants**

Install fire hydrant as per WSSC specifications. Work includes all labor, unclassified excavation, trench protection, polyethylene encasement, saw cutting, removal of asphalt/concrete, removal of fittings and appurtenances, disposal of all excess materials and connection to water mains as per contract documents. Work shall include setting hydrant to grade and restoration and replacement of disturbed areas as per contract documents. The fire hydrant lead installations (6-inch) are included in Pay Item #1 and valves (6-inch) are included in Pay Item #2. Painting of fire hydrants is included in this pay item.

**Unit Price – Each (EA)**

**Item No. 4      1 or 2-inch Corporation**

Install 1 or 2-inch corporation and 1 or 2-inch copper for each residential house connection within 3-feet of the water main and reconnect to water main according to contract documents. Work includes all labor, unclassified excavation, trench protection, polyethylene encasement, saw cutting, removal of asphalt/concrete, removal of fittings and appurtenances, disposal of all excess materials and connection to water mains as per contract documents. This pay item includes reducing down from 1-inch copper section to the existing service connection. All taps and corporations will be paid under this pay item.

**Unit Price – Each (EA)**

**Item No. 5      1 or 2-inch Water Service Connection**

Install 1 or 2-inch copper, type K water service connection as per contract documents and WSSC specifications. Work includes all labor, unclassified excavation, trench protection, polyethylene encasement, saw cutting, removal of asphalt/concrete, removal of fittings and appurtenances, disposal of all excess materials and connection to water mains as per contract documents. The contractor is required to connect the new water house connections to the meter and replace the existing angle valve (street side). This pay item may also be used to replace a water service connection between the meter up to and within 5-feet of a structure (house side). Work shall include restoration and replacement of disturbed areas (fine grading, seed and mulch) as per contract documents. This pay item is only for a full replacement of a house connection between the water meter and within 3-feet of the water main and if directed to replace a house connection on the private side of the meter. Installation of the WHC will be paid at the bid price per linear feet. This pay item does not include reconnection of the service to the new main or any service connection work within 3-feet of the new water main. Boring or utilizing a trenchless technology for the water service installation is the contractor's option.

**Unit Price – Linear Feet (LF)**

**Item No. 6      Water Meter Crocks**

Install PVC water meter crocks for 1 and 2-inch water service connections as per contract documents and WSSC specifications. Work includes all labor, unclassified excavation, trench protection, saw cutting, removal of asphalt/concrete, removal of fittings and appurtenances, disposal of all excess materials and connection to water mains as per contract documents. The contractor is required to connect the existing service connection (house side) to the meter and replace the existing angle valve (house side). Work shall include restoration and replacement of disturbed areas (fine grading, seed and mulch) as per contract documents. Installation of service connection will be paid per linear feet under a separate pay item. This pay item will be used when a meter crotch is in disrepair and/or when the meter crotch needs to be relocated.

**Unit Price – Each (EA)**

**Item No. 7      6-inch Hot Mix Asphalt (HMA) Surface Course**

Furnish and install Hot Mix Asphalt surface course (12.5 mm) in the roadway (6-inch) as per contract documents. This pay item is for the asphalt restoration required due to the water main, valve and water

house connection work. Pavement restoration as per details provided in Appendix J. The 12.5 mm HMA Superpave surface course shall be installed in two 3-inch lifts.

**Unit Price – Square Yard (SY)**

**Item No. 8      Graded Aggregate Base (GAB)**

Furnish and install Graded Aggregate Base (GAB) for full depth utility trench backfill as per MSHA Specifications. This item includes all compaction, testing and disposal of unsuitable material.

**Unit Price – Tons**

**Item No. 9      Inlet Protection**

Furnish, install, maintain, and remove inlet protection according to contract documents and as directed by the City. Inlet Protection shall be in accordance with the requirements of the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control. This item includes placement, operation, maintenance and removal upon completion and any restoration required following inlet protection removal.

**Unit Price – Each (EA)**

**Item No. 10     Silt Fence**

This item shall consist of furnishing and placing silt fence according to contract documents and as directed by the City. Silt fence shall be in accordance with the requirements of the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control. This item includes placement, operation, maintenance and removal upon completion and any restoration required following silt fence removal.

**Unit Price – Linear Feet (LF)**

**Item No. 11     MSHA #57 Stone**

Furnish, install, and maintain #57 stone as an approved subgrade per MSHA Specifications. When directed by the City, 57 stone may be used for trenches, undercut areas below pipe or as a subgrade for concrete curb and gutter. This item includes all unclassified excavation, stone, compaction and disposal of unsuitable material.

**Unit Price – Tons**

**Item No. 12     Remove and Replace Concrete Curb and Gutter**

Furnish and install concrete curb and gutter as per Montgomery County Standard 100.01 (Type A and C) according to contract documents. Work shall include providing approved sub-grade, and restoration and replacement of disturbed areas (fine grading, seed and mulch). This pay item includes 4-inches of GAB underneath the curb and gutter, saw cutting, compacted fill, fine grading, 4-inches topsoil, disposal of any soils made unsuitable due to construction activities and the removal/disposal of the existing curb and gutter.

**Unit Price – Linear Feet (LF)**

**Item No. 13     Remove and Replace 4-inch Concrete Sidewalk**

Furnish and install concrete sidewalk (4-inch depth) as per Montgomery County Standard 110.01 according to contract documents. Work shall include providing approved sub-grade, and restoration and replacement of disturbed areas (fine grading, seed and mulch). This pay item includes saw cutting, compacted fill, fine grading, 4-inches topsoil, disposal of any soils made unsuitable due to construction activities and the removal/disposal of the existing sidewalk.

**Unit Price – Square Yards (SY)**

**Item No. 14    Remove and Replace Concrete Curb and Gutter**

Furnish and install concrete driveway aprons (7 and 9-inch depths) as per City of Rockville Detail 61, 62, 71 and 72 (residential and commercial) according to contract documents. Work shall include providing approved sub-grade, and restoration and replacement of disturbed areas (fine grading, seed and mulch). This pay item includes the gutter pan, saw cuts, compacted fill, fine grading, 4-inches topsoil, disposal of any soils made unsuitable due to construction activities and the removal/disposal of the existing sidewalk.

**Unit Price – Cubic Yards (CY)**

**\*Item No. 15    Unfinished Concrete**

Furnish and install unfinished concrete for thrust restraints as per WSSC Specifications. Work includes all labor and materials for blocking and collars in conjunction with construction and operation of the water main system, and unclassified excavation, trench protection, saw cutting, removal of asphalt/concrete and disposal of all excess materials as per contract documents. This pay item will be used at locations when the existing water system requires thrust restraints and not intended to be used on new improvements. All new constructed water pipe joints and fittings must be restrained.

**Unit Price – Cubic Yards (CY)**

**\*Item No. 16    Water Valve Vault**

Install water valve vault (WSSC Standard Detail W/4.5) for a 6, 8 or 12-inch pressure reducing valve and all appurtenances as per contract documents and WSSC Specifications. Work includes all labor, unclassified excavation, trench protection, saw cutting, removal of pavement, removal of pipes and appurtenances, disposal of all excess materials and bedding. This pay item includes installation of all vault appurtenances, such as grade rings, frame, cover, vault seals, sump, piers and ladder. Installation of a pressure reducing valve is included in this pay item. Piping, valve, fitting and water main appurtenance installations through the vault will be paid under Pay Items 1, 2 and 4. Maximum water main depth is up to 8-feet, measured from the existing grade down to the pipe invert.

**Unit Price – Each (EA)**

**\*Item No. 17    Test Pits - Water Service Line Material** Test pit water service connections in order to determine material composition (copper, galvanized, lead, etc.). Work includes all labor, unclassified excavation, cataloging material composition and all restoration as per contract documents. If connection is under a sidewalk, driveway or other paved area, restoration would be compensated via a separate pay items.

**Unit Price – Each (EA)**

## **SPECIFICATIONS – WATER METER REPLACEMENT (Part B)**

### **WATER METER REPLACEMENT**

The water meter replacement will replace existing mechanical meters with ultrasonic meters compatible with planned Advanced Metering Infrastructure (AMI) beginning in FY 2023. The replacement of meters is a gradual transition planned from FY 2023 through FY 2030. Water service lines, meter crocks and meter vaults will be replaced on an as-needed basis. See Appendix P for an approximate number of meters of each size and Appendix Q for the preliminary water meter replacement schedule. The schedule is subject to change based on Mayor and Council approval of annual budgets.

The contractor will take GPS coordinates identifying the location of replacement meters. The contractor will provide the city with an Excel file of the meter number, the service address and the longitudinal and latitudinal coordinates of the meter location. The contractor is to confirm the GPS location is accurate to within three feet of the meter location.

### **DESCRIPTION OF PAY ITEMS**

Provide all labor, tools and equipment necessary for the completion of the following pay items. Some pay items include material.

The City may make adjustments to the location and/or quantity of temporary work items without modification to the unit price. Temporary items include sediment and erosion controls, and test pits. The City may direct that the location of a work item be adjusted. The City may also require an additional quantity of a pay item to be completed, whether or not shown on the plans. The quantity of a pay item may also be decreased. Payment shall only be made for items of work actually completed and accepted by the City.

All lump sum pay items will be prorated for each pay estimate. A percentage of the lump sum item will be paid based upon the amount of work completed and accepted by the City.

#### **Item No. 1     Install Water Meters**

Replace existing water meters. For 2" meters and smaller, replace the water meter and expansion wheel, and swap out metallic iron crock lids with composite lids. City will purchase all water meters to be used in this project. This pay item includes GPS location and data management.

All other water materials to be provided by the contractor via three separate materials quotes to include materials such as copper, ductile iron pipe, valves, expansion wheels, composite lids, fittings, etc.

Unit price is determined by meter size.

<b>Item No. 1a</b>	<b>Replace Water Meters 2" and smaller</b>	<b>Unit Price – Each (EA)</b>
<b>Item No. 1b</b>	<b>Replace 3" Water Meters</b>	<b>Unit Price – Each (EA)</b>
<b>Item No. 1c</b>	<b>Replace 4" Water Meters</b>	<b>Unit Price – Each (EA)</b>
<b>Item No. 1d</b>	<b>Replace 6" Water Meters</b>	<b>Unit Price – Each (EA)</b>
<b>Item No. 1e</b>	<b>Replace 8" Water Meters</b>	<b>Unit Price – Each (EA)</b>
<b>Item No. 1f</b>	<b>Replace 10" Water Meters</b>	<b>Unit Price – Each (EA)</b>

#### **Item No. 2     Install 4, 6, or 8-inch DIP Water Service Line and Bypass**

Install 4, 6, or 8-inch ductile iron pipe (DIP), cement lined, Pressure Class 350 and all appurtenances as per contract documents and WSSC Specifications. Work includes all labor, unclassified excavation, trench protection, polyethylene encasement, saw cutting, temporary by-pass service for all service connections (includes all temporary by-pass materials), removal of asphalt/concrete, removal of pipes and appurtenances, disposal of all excess materials, bedding and connections to existing water mains. Work shall include restoration and replacement of disturbed areas (fine grading, seed and mulch) as per contract documents. This pay item includes temporary traffic control measures, testing and the removal of all temporary by-pass services. All testing, including compaction, concrete, pressure and chlorination (bacteria) testing is the contractor's responsibility. **The contractor will be paid either 'A' Depth or 'B' Depth depending on pipe invert.**

**Item No. 2a     4, 6, or 8-inch DIP Water Service ('A' Depth)     Unit Price – Linear Foot (LF)**

This pay item is for water service and bypass installations where the pipe invert is located between 0 and including 6-feet ('A' Depth), measured from existing grade down to invert of pipe.

**Item No. 2b     4, 6, or 8-inch DIP Water Service ('B' Depth)     Unit Price – Linear Foot (LF)**

This pay item is for water service and bypass installations where the pipe invert is located between 6 and 9-feet, ('B' Depth) measured from existing grade down to invert of pipe.

**Item No. 3     4, 6, or 8-inch Water Valves**

Install 4, 6 or 8-inch valves (direct bury) per City of Rockville specifications. Work includes all labor, unclassified excavation, trench protection, polyethylene encasement, saw cutting, removal of asphalt/concrete, removal of fittings and appurtenances, disposal of all excess materials and connection to water service and bypass lines as per contract documents.

**Unit Price – Each (EA)**

**Item No. 4     Water Meter Crocks**

Replace any damaged PVC water meter crocks for 2-inch and smaller water service connections as per contract documents and WSSC specifications.

**Unit Price – Each (EA)**

**Item No. 5     Water Meter Vault**

Install water meter vault (WSSC Standard Detail W/14.0 or W/14.0a) for water meters 4-inches and greater and all appurtenances as per contract documents and WSSC Specifications. Work includes all labor, unclassified excavation, trench protection, saw cutting, removal of pavement, removal of pipes and appurtenances, disposal of all excess materials and bedding. This pay item includes installation of all vault appurtenances, such as grade rings, hatches, vault seals, sump, piers and ladder. Installation of a water meter is included in this pay item. Piping, valve, fitting and water service appurtenance installations through the vault will be paid under Pay Items 1, 2, 3 and 4. Maximum water main depth is up to 8-feet, measured from the existing grade down to the pipe invert.

**Unit Price – Each (EA)**

**Item No. 6     6-inch Hot Mix Asphalt (HMA) Surface Course**

Furnish and install Hot Mix Asphalt surface course (12.5 mm) in the roadway (6-inch) as per contract documents. This pay item is for the asphalt restoration required due to the water main, valve and water house connection work. Pavement restoration as per details provided in Appendix J. The 12.5 mm HMA Superpave surface course shall be installed in two 3-inch lifts.

**Unit Price – Square Yard (SY)****Item No. 7 Furnish and Install Graded Aggregate Base (GAB)**

Furnish and install Graded Aggregate Base (GAB) for full depth utility trench backfill as per MSHA Specifications. This item includes all compaction, testing and disposal of unsuitable material.

**Unit Price – Tons****Item No. 8 Furnish and Install Inlet Protection**

Furnish, install, maintain, and remove inlet protection according to contract documents and as directed by the City. Inlet Protection shall be in accordance with the requirements of the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control. This item includes placement, operation, maintenance and removal upon completion and any restoration required following inlet protection removal.

**Unit Price – Each (EA)****Item No. 9 Remove and Replace Concrete Curb and Gutter**

Furnish and install concrete curb and gutter as per Montgomery County Standard 100.01 (Type A and C) according to contract documents. Work shall include providing approved sub-grade, and restoration and replacement of disturbed areas (fine grading, seed and mulch). This pay item includes 4-inches of GAB underneath the curb and gutter, saw cutting, compacted fill, fine grading, 4-inches topsoil, disposal of any soils made unsuitable due to construction activities and the removal/disposal of the existing curb and gutter.

**Unit Price – Linear Feet (LF)****Item No. 10 Remove and Replace Concrete Sidewalk**

Furnish and install concrete sidewalk (4-inch depth) as per Montgomery County Standard 110.01 according to contract documents. Work shall include providing approved sub-grade, and restoration and replacement of disturbed areas (fine grading, seed and mulch). This pay item includes saw cutting, compacted fill, fine grading, 4-inches topsoil, disposal of any soils made unsuitable due to construction activities and the removal/disposal of the existing sidewalk.

**Unit Price – Square Yards (SY)****Item No. 11 Remove and Replace Concrete Driveway Apron**

Furnish and install concrete driveway aprons (7 and 9-inch depths) as per City of Rockville Detail 61, 62, 71 and 72 (residential and commercial) according to contract documents. Work shall include providing approved sub-grade, and restoration and replacement of disturbed areas (fine grading, seed and mulch). This pay item includes the gutter pan, saw cuts, compacted fill, fine grading, 4-inches topsoil, disposal of any soils made unsuitable due to construction activities and the removal/disposal of the existing sidewalk.

**Unit Price – Cubic Yards (CY)****\* Item No. 12 Unfinished Concrete**

Furnish and install unfinished concrete for thrust restraints as per WSSC Specifications. Work includes all labor and materials for blocking and collars in conjunction with construction and operation of the water main system, and unclassified excavation, trench protection, saw cutting, removal of asphalt/concrete and disposal of all excess materials as per contract documents. This pay item will be used at locations when the existing water system requires thrust restraints and not intended to be used on new improvements. All new constructed water pipe joints and fittings must be restrained.

**Unit Price – Cubic Yards (CY)**

## **SPECIFICATIONS – EMERGENCY UTILITY REPAIRS (Part C)**

It is the City's intention to use the prices in this contract section for emergency or urgent repairs. The City may award to one or more Contractor to perform these services.

All workmanship shall be in accordance with industry standards by qualified personnel.

All labor rates will be billed in half hour increments. The City will pay a minimum of 4 crew hours for each mobilization and the first 4 crew hours are incidental to the Mobilization pay item (s). No additional charges will be accepted for travel or mileage. All labor rates are for a full crew which shall begin and end at the job site. Crew hours are intended to cover labor needed for the installation, maintenance and/or removal of utilities as well as work associated with the following items: construction fencing, asphalt and concrete repairs, restoration, erosion and sediment control measures, and temporary access roads.

No sub-contractors shall be permitted to work under this contact without the consent of Public Works.

Any work which may be done by the Contractor prior to receipt of the notice to proceed, work done contrary to or regardless of the instructions of the City, work done beyond the lines and grades shown on the contract drawings, or as given, or any extra work done without written authority will be considered as unauthorized and at the expense of the Contractor.

Upon final completion and inspection of the work in accordance with the Agreement, the City shall pay the Contractor. The contractor shall comply with all federal, state, Montgomery County, WSSC and City of Rockville Standards and Specifications applicable to its activities and obligations under the contract.

### **Work Schedule:**

The Contractor may be required to do emergency repairs at times other than normal working hours. The Contractor shall be in a position to be available on a 24 hour basis for such emergency work, 365 days per year. The Contractor shall supply a monitored 24 hours a day telephone number(s) to contact for service. All work shall be considered an emergency regardless of when requested. There is no markup included in the contract. It shall be understood that timely performance is of the essence in this contract.

### **Response Time:**

Once notification has been made the Foreman shall be on site within two (2) hours and schedule this work to have a crew, with equipment, within three (3) hours, if so requested. The Foreman must provide verbal confirmation of received task. Failure on the part of the Contractor to adhere to the schedule will be duly noted. Repeated failure in the absence of mitigation circumstances shall be cause for termination of this contract.

### **Parts and Materials:**

The Contractor shall provide all parts and material required to perform the emergency work. All parts and materials used by the Contractor for Task 2 and 3 Items (utility work) shall be billed at the actual cost to the Contractor. The City will reimburse the Contractor for materials (Task Items 2 and 3 only) at the Contractor's costs plus a 5% markup. Contractor's cost is the actual invoice cost of material to the Contractor from the supplier (F.O.B. Contractor's Facility). Upon installation of the materials, the

contractor will submit paid invoices and sufficient supporting data to the City inspector for review, approval and reimbursement of incurred costs. Contractor is responsible for all materials including staging and storing until acceptance by the City. The City reserves the right to furnish any or all material for work performed under this Contract. Normally, the Contractor will furnish required material.

A copy of the Contractor's invoices for all parts/materials used for repairs/services must accompany the invoice in order to be reimbursed. Payments shall not be made for any parts or materials without the proper documentation attached to the Contractor's original invoice.

**Description of Work:**

The contractor will be called upon, on an on-call basis, to perform the following unplanned activities, including, but not limited to:

**Item No. 1      Mobilization**

Contractor shall mobilize a full crew and establish facilities to begin work. Pay item shall be utilized per individual task order and the first 4 Crew Hours are incidental to this pay item. No task order shall be for multiple locations. Multiple mobilizations are not permitted for individual task orders unless demobilization is directed by the City.

**Item No. 1a      Mobilization for Items 2A and 3A (Light)      **Unit Price – Each (EA)****

This pay item is for utility repairs where excavations are for less than 8 feet deep. The depth is defined by the deepest point measured from existing grade to the invert of the proposed utility at any point of excavation.

**Item No. 1b      Mobilization for Items 2 and 3 (B and C) (Heavy)      **Unit Price – Each (EA)****

This pay item is for utility repairs where excavations are greater than or equal to 8 feet deep and less than 22-feet. The depth is defined by the deepest point measured from existing grade to the invert of the proposed utility at any point of excavation.

**Items 2 and 3      Utility Repairs:**

- A. The contractor shall provide all labor and equipment to excavate and repair or replace existing utility pipes and structures in locations as defined. The depth of a utility is defined by the deepest point measured from existing grade to the invert of the proposed water pipe at any point of excavation.
- B. The Task shall be selected based on the deepest point of excavation. The Task classification selected shall be utilized for the entire task. The City will determine which Task type shall be utilized for the individual task order proposals.
- C. Crew Hour rates shall include clearing and grubbing, saw cutting, unclassified excavation, trench protection, dewatering, removal, repair and/or replacement of pipes and appurtenances, disposal of all excess materials, compacting of trench backfill and finish grading. The City will pay a minimum of 4 Crew Hours for each mobilization and the first 4 Crew Hours are incidental to the Mobilization pay items. Crew Hour covers all labor for emergency pay items except for Temporary Traffic and Pedestrian Control, Tree Removal and Root Pruning.
- D. Crew Hour for Items 2 and 3 shall be based upon a minimum of 4 laborers, 1 foreman, 1 excavator, 1 loader, 2 dump trucks, 1 trench compactor, and sheeting and shoring. Pay items 2a, 2b and 2c shall include a street sweeper.
- E. All testing, including compaction, concrete, pressure and chlorination (bacteria) testing is the contractor's responsibility.

- F. Task shall also include utility structures such as manholes, all connections of existing pipes, appurtenances, and Pre-stressed Concrete Cylinder Pipe.
- G. The Contractor shall keep the work site free from accumulation of waste materials or rubbish caused by his operation at all times.
- H. The Contractor shall leave the work area clean and free of materials, debris, and equipment to the satisfaction of the using agency.
- I. The Contractor shall be responsible for removal and disposal of all debris and defective materials removed in the performance of the contract and in strict accordance with all applicable regulations, codes, laws, and ordinances.

**Unit Price – Crew Hour**

**Item No. 4 Temporary Traffic and Pedestrian Controls**

- A. The Contractor shall provide the necessary temporary controls in order to maintain pedestrian and vehicular traffic at all times. Controls shall include the necessary cones, barrels, flaggers, arrow boards and temporary signs.
- B. The Task price shall include all labor, materials and equipment necessary to complete this work.
- C. The Contractor shall adhere to the most current edition of the “Manual on Uniform Traffic Control Devices” (MUTCD), especially Part 6 Section 104 of the Specifications, including all revisions, errata and supplements of each. No work shall commence until all required traffic control devices are completely and correctly in place.

**Unit Price – Per Day**

**Item No. 5 Temporary Sanitary Sewer Pump Around System**

- A. The Contractor shall provide all sewage pumps, hose, piping, fittings, valves and accessories to continuously convey sewage flows during the pump around operation. The pump equipment shall be suitable for pumping raw unscreened sewage over an indefinite period without clogging or requiring shut down for maintenance.
- B. The Contractor shall provide at least one additional standby pump including all suction and discharge piping and valves for each temporary sanitary sewer pump around system.
- C. Temporary diesel pumps shall be contained in sound attenuated units, housed in special enclosures engineered to keep operating noise to a minimum and shall include critical grade silenced mufflers and silenced priming exhausts to further reduce noise levels.
- D. The contractor shall have qualified staff on site at all times during normal working hours that a temporary sanitary sewer pump around system is in operation so that in the event of a problem appropriate corrective action can be immediately implemented to prevent a sewage overflow.
- E. The contractor shall assign on call personnel to be available during nights and weekends that temporary sanitary pump around systems are operations and this person shall respond to emergencies within 60 minutes of receiving notification of any alarm condition.
- F. The contractor is responsible for any emergency repairs needed to keep pumps in operation to prevent sewage overflows. The spillage of sewage is strictly prohibited. However, in the event of a sewage spill, the contractor shall respond immediately with the necessary equipment to stop all leaks and spills of sewage and promptly clean up the spilled sewage. Sewage spills should be reported immediately to the City.
- G. Prior to removing temporary sanitary sewage pump around systems from service, the contractor shall flush each system with clean water and allow it to drain to its lowest level prior to disassembly.
- H. All accumulated solids shall be disposed of by the contractor at no additional cost to the City.

- I. Upon removal of the temporary pump around system, the surrounding area of impact including all suction manholes shall be restored to its original condition.

**Unit Price – Per Day or Per Foot/Per Day**

**Item No. 6 Tree Removal > 6-inches < 12-inches**

Furnish all labor and equipment required to remove trees greater than or equal to 6-inches and less than or equal to 12-inches including stump removals. Trees shall only be removed as per the direction of the City of Rockville Inspector. Work shall include tree disposal and stump grinding as per contract documents. The contractor or subcontractor removing trees must be registered in the State of Maryland as a Licensed Tree Expert as issued by Maryland Department of Natural Resources.

**Unit Price – Each (EA)**

**Item No. 7 Tree Removal > 12-inches < 18-inches**

Furnish all labor and equipment required to remove trees greater than 12-inches and less than or equal to 18-inches including stump removals. Trees shall only be removed as per the direction of the City of Rockville Inspector. Work shall include tree disposal and stump grinding as per contract documents. The contractor or subcontractor removing trees must be registered in the State of Maryland as a Licensed Tree Expert as issued by Maryland Department of Natural Resources.

**Unit Price – Each (EA)**

**Item No. 8 Tree Removal > 18-inches < 24-inches**

Furnish all labor and equipment required to remove trees greater than 18-inches and less than or equal to 24-inches including stump removals. Trees shall only be removed as per the direction of the City of Rockville Inspector. Work shall include tree disposal and stump grinding as per contract documents. The contractor or subcontractor removing trees must be registered in the State of Maryland as a Licensed Tree Expert as issued by Maryland Department of Natural Resources.

**Unit Price – Each (EA)**

**Item No. 9 Tree Removal > 24-inches**

Furnish all labor and equipment required to remove trees greater than 24-inches including stump removals. Trees shall only be removed as per the direction of the City of Rockville Inspector. Work shall include tree disposal and stump grinding as per contract documents. The contractor or subcontractor removing trees must be registered in the State of Maryland as a Licensed Tree Expert as issued by Maryland Department of Natural Resources.

**Unit Price – Each (EA)**

**Item No. 10 Root Pruning**

Furnish all labor and equipment to root prune according to contract documents. Construction method shall conform to specifications and be approved by the City Forester. The City Forester and/or the City Inspector may direct locations for root pruning. Payment shall be made per linear foot of root pruning including the additional measurement of the opposite side of a trench when root pruning is required on both sides of an excavated trench. The contractor or subcontractor performing any root pruning must be a Certified Arborist, certified by the International Society of Arboriculture and be registered in the State of Maryland as a Licensed Tree Expert as issued by Maryland Department of Natural Resources.

**Unit Price- Linear foot (LF)**

**Item No. 11 Temporary Tree Protection and Construction Fence**

Refer to Section 120 - Tree Preservation, of the Maryland Department of Transportation, State Highway Administration's *Standard Specifications for Construction and Materials*, dated July 2008 or as directed by the Forestry Inspector. Furnish orange construction fencing used for defining work areas, tree protection fencing, and pedestrian safety fence according to Contract Documents as directed by the City Inspector. Construction method shall conform to detail, as shown on Plan Set or other methods as approved by Forestry Inspector. Blue fence will not be accepted. This pay item includes all materials and disposal after removal. Labor for installation, maintenance, removal and restoration are covered under separate pay items.

**Unit Price- Linear foot (LF)**

**Item No. 12 Topsoil, Seed and Mulch**

This pay item shall consist of furnishing all topsoil, seed and mulch (materials) necessary to permanently restore grass areas as per the contract documents that have been disturbed as a result of the completion of the proposed work. This pay item does not include restoration of areas disturbed due to the negligence of the contractor. Labor for installation and maintenance are covered under separate pay items.

**Unit Price – Square Feet (SF)**

**Item No. 13 Inlet Protection**

This pay item shall consist of furnishing inlet protection according to contract documents and as directed by the City. Inlet Protection shall be in accordance with the requirements of the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control. This pay item includes all materials and disposal after removal. Labor for installation, maintenance, removal and restoration are covered under separate pay items.

**Item No. 13a Standard Inlet Protection**

**Unit Price – Each (EA)**

**Item No. 13b Filter Log**

**Unit Price – Each (EA)**

**Item No. 14 Silt Fence**

This item shall consist of furnishing silt fence according to contract documents and as directed by the City. Silt fence shall be in accordance with the requirements of the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control. This pay item includes all materials and disposal after removal. Labor for installation, maintenance, removal and restoration are covered under separate pay items.

**Unit Price – Linear Feet (LF)**

**Item No. 15 Super Silt Fence**

This item shall consist of furnishing super silt fence according to contract documents and as directed by the City. Super silt fence shall be in accordance with the requirements of the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control. This pay item includes all materials and disposal after removal. Labor for installation, maintenance, removal and restoration are covered under separate pay items.

**Unit Price – Linear Feet (LF)**

**Item No. 16 Temporary Access Road**

The Contractor shall furnish temporary access roads where necessary for site access. The temporary access road shall be at a minimum width of 10-feet. The contractor must coordinate with the private





City of Rockville  
Rockville, Maryland

# **SECTION V:**

## **BID PROPOSAL FORMS AND SAMPLE DOCUMENTS**

### **INVITATION FOR BID # 01-22**

#### **WATER MAIN REHABILITATION PROGRAM, WATER METER REPLACEMENT AND EMERGENCY UTILITY REPAIRS**

**THESE FORMS, UNLESS NOTED OTHERWISE, MUST BE  
COMPLETED, SIGNED AND SUBMITTED**

**FAILURE TO COMPLY WILL RESULT IN THE  
DISQUALIFICATION OF YOUR BID**

In response to the advertisement by the City of Rockville inviting bids for the work and in conformance with the bid document on file in the Purchasing Division of the City of Rockville, we hereby certify that we are the only person, or persons interested in this bid proposal as principals, and that an examination has been made of the work site, the specifications, the plans and the bid documents. We propose to furnish all necessary machinery, materials, equipment, tools, labor and other means of construction required to complete the project. Bidders must bid all items.

The following items shall be performed per the referenced Standard Specification and the Contract Documents. Measurement and Payment shall be as described in the Technical Specifications unless otherwise specified in the Contract Documents. All work items described in the Contract Documents that are not referenced buy a specific pay item shall be considered incidental to all other items in the Contract Documents.

## BID PROPOSAL FORM

**THIS FORM MUST BE COMPLETED AND INCLUDED WITH THE BID SUBMITTAL. FAILURE TO SUBMIT THIS FORM SHALL DEEM THE BIDDER NON-RESPONSIVE.**

IN ACCORDANCE WITH ALL TERMS, SPECIFICATIONS AND REQUIREMENTS, WE PROPOSE TO FURNISH ALL LABOR, EQUIPMENT, MATERIALS AND SERVICES AND THE PERFORMANCE OF ALL WORK NECESSARY FOR THE PROJECT. PROVIDE PRICING BELOW TO INCLUDE OVERHEAD, PROFIT, TAXES, INSURANCE AND OTHER APPLICABLE FEES AND COSTS. ALTERATIONS TO THIS FORM OR BID ALTERNATES (UNLESS OTHERWISE SPECIFIED) ARE NOT ACCEPTABLE. LINE ITEMS LEFT BLANK OR MARKED "\$0" SHALL DEEM THIS BID NON-RESPONSIVE.

**BID PRICE TABLE A – Water Main Rehabilitation Program**

PAY ITEM	ITEM DESCRIPTION	QTY	UNIT OF MEASURE	UNIT COST	EXTENDED COST
1a	Install 6" thru 12" DIP Water Main; Trench Depth = 0 to 6-foot	46,000	LINEAR FOOT		
1b	Install 6" thru 12" DIP Water Main; Trench Depth = 6 to 9-foot	1,500	LINEAR FOOT		
1c	Install 16" DIP Water Main; Trench Depth = 0 to 6-foot	3,000	LINEAR FOOT		
1d	Install 16" DIP Water Main; Trench Depth = 6 to 9-foot	1,000	LINEAR FOOT		
2a	Install 6", 8" or 12" Water (Gate) Valves	350	EACH		
2b	Install 16" Water (Butterfly) Valves	25	EACH		
3	Install Fire Hydrants	80	EACH		
4	Install 1" and 2" Corporation	750	EACH		
5	Install 1" and 2" House Connection, copper type K.	3,000	LINEAR FOOT		
6	Install Water Meter Crocks	50	EACH		
7	Furnish and Install 6.0-inch Hot Mix Asphalt (HMA) Surface Course (12.5 mm)	16,500	SQUARE YARD		

PAY ITEM	ITEM DESCRIPTION	QTY	UNIT OF MEASURE	UNIT COST	EXTENDED COST
8	Furnish and Install Graded Aggregate Base (GAB)	33,000	TONS		
9	Furnish and Install Inlet Protection	110	EACH		
10	Furnish and Install Silt Fence	250	LINEAR FOOT		
11	Furnish and Install MSHA #57 Stone	450	TONS		
12	Remove and Replace Concrete Curb and Gutter	1,500	LINEAR FEET		
13	Remove and Replace Concrete Sidewalk	500	SQUARE YARD		
14	Remove and Replace Concrete Driveway Apron	120	CUBIC YARD		
*15	*Contingency Item Furnish and Install Unfinished Concrete	10	CUBIC YARD		
*16	*Contingency Item Install Water Valve Vault (WSSC Detail W/4.5)	5	EACH		
*17	Test Pits - Water Service Line Materials	500	EA		
<b>WATER MAIN REHABILITATION TOTAL - A</b>					<b>\$</b>

\*Indicates Contingent Item

Write the Total Bid Price for the **Water Main Rehabilitation Program** in words:

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**BID PRICE TABLE B – Water Meter Replacement**

PAY ITEM	ITEM DESCRIPTION	QTY	UNIT OF MEASURE	UNIT COST	EXTENDED COST
1	Install water meters				
1a	2" meters and smaller	12,750	EACH		
1b	3" meters	75	EACH		
1c	4" meters	35	EACH		
1d	6" meters	25	EACH		
1e	8" meters	13	EACH		
1f	10" meters	1	EACH		
2	Install 4, 6, or 8-inch DIP Water Service Line and Bypass				
2a	Install water mains 4" thru 8" DIP, 0 to 6-feet	4,000	LINEAR FOOT		
2b	Install water mains 4" thru 8" DIP, 6 to 9-feet	400	LINEAR FOOT		
3	Install 4" 6", or 8" Water Valves	160	EACH		
4	Install Water Meter Crocks	50	EACH		
5	Install Water Meter Vault (WSSC Details W/14.0 and W/14.0a)	35	EACH		
6	Furnish and Install 6.0-inch HMA Surface Course	340	SQUARE YARD		
7	Furnish and Install GAB	700	TON		
8	Furnish and Install Inlet Protection	80	EACH		

PAY ITEM	ITEM DESCRIPTION	QTY	UNIT OF MEASURE	UNIT COST	EXTENDED COST
9	Remove and Replace Concrete Curb and Gutter	800	LINEAR FEET		
10	Remove and Replace Concrete Sidewalk	1,280	SQUARE YARD		
11	Remove and Replace Concrete Driveway Apron	60	CUBIC YARD		
12	*Furnish and Install Unfinished Concrete*	10	CUBIC YARD		
<b>WATER METER REPLACEMENT TOTAL - B</b>					\$

\*Indicates Contingent Item

Write the Total Bid Price for the **Water Meter Replacement** in words:

### BID PRICE TABLE C – Emergency Utility Repairs

PAY ITEM	ITEM DESCRIPTION	QTY	UNIT OF MEASURE	UNIT COST	EXTENDED COST
1a	Mobilization for Items 2A and 3A (Light)	3	EACH		
1b	Mobilization for Items 2 B&C and 3 B&C (Heavy)	3	EACH		
2a	Dig and repair utility in street or pavement (less than 8 feet depth)	200	CREW HOUR		
2b	Dig and repair utility in street or pavement (greater than or equal to 8 feet and less than 16 feet)	160	CREW HOUR		
2c	Dig and repair utility in street or pavement (greater than or equal to 16 feet and less than 22 feet)	40	CREW HOUR		
3a	Dig and repair utility in off road, easement or park area (less than 8 feet depth)	80	CREW HOUR		

PAY ITEM	ITEM DESCRIPTION	QTY	UNIT OF MEASURE	UNIT COST	EXTENDED COST
3b	Dig and repair utility in off road, easement or park area (greater than or equal to 8 feet and less than 16 feet)	40	CREW HOUR		
3c	Dig and repair utility in off road, easement or park area (greater than or equal to 16 feet and less than 22 feet)	40	CREW HOUR		
4a	Temporary Traffic and Pedestrian Control for 2 way vehicular traffic	25	PER DAY		
4b	Temporary Traffic and Pedestrian Control at 3 way intersection	25	PER DAY		
4c	Temporary Traffic and Pedestrian Control at 4 way intersection	25	PER DAY		
5a	Temporary sewer pump around, one pump @ 500 GPM	7	PER DAY		
5b	Suction and discharge piping for 500 GPM pump	1,000	PER FOOT/PER DAY		
5c	Temporary sewer pump around, two pumps @ 1,000 GPM	7	PER DAY		
5d	Suction and discharge piping for two 1,000 GPM pumps	1,000	PER FOOT/PER DAY		
5e	Temporary sewer pump around, two pumps @ 1,500 GPM	7	PER DAY		
5f	Suction and discharge piping for two 1,500 GPM pumps	1,000	PER FOOT/PER DAY		
6	Tree Removal > 6-inches and ≤ 12-inches	12	EACH		
7	Tree Removal > 12-inches and ≤ 18-inches	10	EACH		
8	Tree Removal > 18-inches and ≤ 24-inches	8	EACH		
9	Tree Removal > 24-inches	6	EACH		

PAY ITEM	ITEM DESCRIPTION	QTY	UNIT OF MEASURE	UNIT COST	EXTENDED COST
10	Root Pruning	250	LINEAR FEET		
11	Temporary Tree Protection and Safety Fence	1,000	LINEAR FEET		
12	Topsoil, Seed and Mulch	5,000	SQUARE FEET		
13a	Standard Inlet Protection	12	EACH		
13b	Filter Log Inlet Protection	12	EACH		
14	Silt Fence	250	LINEAR FEET		
15	Super Silt Fence	250	LINEAR FEET		
16a	12-inch Mulch Access Road	400	LINEAR FEET		
16b	Geo-grid Access Road	400	LINEAR FEET		
16c	Plank Access Road	400	LINEAR FEET		
<b>EMERGENCY UTILITY REPAIRS TOTAL - C</b>					<b>\$</b>

Write the Total Bid Price for the **Emergency Utility Repairs** in words:

**TOTAL BID PRICE:**

A – Total Bid Price for <b>Water Main Rehabilitation Program</b>	
B – Total Bid Price for <b>Water Meter Replacement</b>	
C – Total Bid Price for <b>Emergency Utility Repairs</b>	
<b>Total BID (Sum A+B+C)</b>	

Write the Total Bid Price for the Sum of A, B, and C in words:

**The City reserves the right to not use contingent pay items in determining the low bid value.**

**This bid and its Firm Fixed Prices shall remain valid through March 31, 2023 for acceptance by the City.**

By submitting this offer I acknowledge receipt of and incorporation into this offer of the following Addenda (check each applicable box):

Addendum #1  , Addendum #2  , Addendum #3  , Addendum #4  , Addendum #5  , Addendum #6  ,  
Addendum #7  , Addendum #8  , Addendum #9

The City of Rockville reserves the right to reject any or all bids, offer or proposals, to waive informalities, and to accept all or any part of any bid, offer proposal as they may deem to be in the best interest of the City of Rockville.

I hereby certify that I have read and understand the requirements of this Invitation for Bid No. 01-22 and, that I, as the Bidder, will comply with all requirements, and that I am duly authorized to execute this proposal/offer document and any contract(s) and/or other transactions required by award of this Invitation For Bid.

**Comprehensive Signature Page**

**BIDDER MUST COMPLETE UNDER APPROPRIATE SECTION & RETURN WITH BID**

**Instruction for Signature on Bid Proposal**

The bid, if submitted by an individual, shall be signed by an individual; if submitted by a partnership, shall be signed by such member or members of the partnership as have authority to bind the partnership; if submitted by a corporation the same shall be signed by the President and attested by the Secretary or an Assistant Secretary. If not signed by the President as aforesaid, there must be attached a copy of that portion of the By-Laws, or a copy of a Board resolution, duly certified by the Secretary, showing the authority of the person so signing on behalf of the corporation. In lieu thereof, the corporation may file such evidence with the Administration, duly certified by the Secretary, together with a list of the names of those officers having authority to execute documents on behalf of the corporation, duly certified by the Secretary, which listing shall remain in full force and effect until such time as the Administration is advised in writing to the contrary. In any case where a bid is signed by an Attorney in Fact the same must be accompanied by a copy of the appointing document, duly certified.

IF AN INDIVIDUAL					
Individual Name					
DBA					
Address					
City		State		ZIP	
Signature					
Printed Name					
Title					
Date					
Witness Signature					
Witness Name					
Witness Title					
Date					

<b>IF A PARTNERSHIP</b>					
Name of Partnership					
Address					
City		State		ZIP	
Member Signature					
Printed Name					
Title					
Date					
Witness Signature					
Witness Name					
Witness Title					
Date					

IF A CORPORATION					
Name of Corporation					
Address					
City		State		ZIP	
Fed ID or SSN					
State Of Incorporation					
Signature					
Printed Name					
Title					
Date					
Witness Signature					
Witness Name					
Witness Title					
Date					

CONTACT FOR ADMINISTRATION	
Individual Name	
e-mail	
Telephone	
FAX	
EMERGENCY SERVICE (24hr.) PHONE	

REMITTANCE ADDRESS (if different than organizational address above)					
Address					
City		State		ZIP+4	

MFD-V INFORMATION	
MFD-V Information	<i>For informational purposes only – Is your company certified as a Minority, Female, Disabled or Veteran (MFD-V) business: _____ yes _____ no _____ I choose not to respond</i>

**AFFIDAVIT OF QUALIFICATION TO CONTRACT WITH A PUBLIC BODY**

**Complete, Sign & Return with your bid.**

I hereby affirm that: I am the \_\_\_\_\_ (insert title) and the duly authorized representative of \_\_\_\_\_ (insert organization name) whose address is \_\_\_\_\_

And, that I possess the legal authority to make this affidavit on behalf of myself and the firm for which I am acting.

I affirm:

1. Except as described in Paragraph 2 below, neither I nor the above firm nor, to the best of my knowledge, any of its controlling stockholders, officers, directors, or partners, performing contracts with any public body (the State or any unit thereof, or any local governmental entity in the state, including any bi-county or multi-county entity), has:

- A. been convicted under the laws of the State of Maryland, any other state, or the United States of any of the following:
  - (1) bribery, attempted bribery, or conspiracy to bribe.
  - (2) a criminal offense incident to obtaining, attempting to obtain, or performing a public or private contract.
  - (3) fraud, embezzlement, theft, forgery, falsification or destruction of records, or receiving stolen property.
  - (4) a criminal violation of an anti-trust statute.
  - (5) a violation of the Racketeer Influenced and Corrupt Organization act, or the Mail Fraud Act, for acts in connection with the submission of bids or proposals for a public or private contract.
  - (6) a violation of Section 14-308 of the State Finance and Procurement Article of the Annotated Code of Maryland.
  - (7) conspiracy to commit any of the foregoing.

B. pled *nolo contendere* to, or received probation before verdict for, a charge of any offense set forth in subsection A of this paragraph.

C. been found civilly liable under an anti-trust statute of the State of Maryland, another state, or the United States for acts or omissions in connection with the submission of bids or proposals for a public or private contract.

D. during the course of an official investigation or other proceeding, admitted, in writing or under oath, an act or omission that would constitute grounds for conviction or liability under any law or statute described in subsection A or C of this paragraph.

2. [State "none," or as appropriate, list any conviction, plea or admission as described in Paragraph 1 above, with the date, court, official or administrative body, the individuals involved and their position with the firm, and the sentence or disposition, if any]. \_\_\_\_\_

3. I further affirm that neither I nor the above firm shall knowingly enter into a contract with the Mayor and Council of Rockville under which a person or business debarred or suspended from contracting with a public body under Title 16 of the State Finance and Procurement Article of the Annotated Code of Maryland, will provide, directly or indirectly, supplies, services, architectural services, construction related services, leases of real property, or construction.

I acknowledge that this Affidavit shall be furnished to the Mayor and Council of Rockville and, where appropriate, to the State Board of Public Works and to the Attorney General. I acknowledge that I am executing this Affidavit in compliance with the provisions of Title 16 of the State Finance and Procurement Article of the Annotated Code of Maryland which provides that persons who have engaged in certain prohibited activity may be disqualified, either by operation in law or after a hearing, from entering into contracts with the Mayor and Council of Rockville. I further acknowledge that if the representations set forth in this Affidavit are not true and correct, the Mayor and Council of Rockville may terminate any contract awarded, and take any other appropriate action.

Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

**NON—COLLUSION AFFIDAVIT**  
**Complete, Sign & Return with your bid.**

I hereby affirm that: I am the \_\_\_\_\_ (insert title) and the duly authorized representative of \_\_\_\_\_ (insert organization name) whose address is \_\_\_\_\_

And, that I possess the legal authority to make this affidavit on behalf of myself and the firm for which I am acting.

I affirm:

1. I am fully informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respecting such bid;

2. Such bid is genuine and is not a collusive or sham bid

3. Neither the said bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder, firm or person to submit a collusive or sham bid in connection with the Contract for which the attached bid has been submitted or to refrain from bidding in connection with Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other bidder, firm or person to fix the price or prices in the attached bid or of any other bidder, or to fix any overhead, profit or cost element of the bid price or the bid price of any other bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Mayor and Council of Rockville, Maryland (Local Public Agency) or any person interested in the proposed Contract; and

4. The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant. I do solemnly declare and affirm under the penalties of perjury that the contents of these affidavits are true and correct.

Signature

Printed Name

Title

Date

**BIDDER'S QUESTIONNAIRE**  
**BIDDER MUST COMPLETE AND SUBMIT WITH BID**

In order to be considered for award, the Bidder must complete this questionnaire in its entirety and submit it to the Purchasing Manager within the time specified. The bidder must answer all questions. If additional space is required, attach continuation sheets and clearly indicate the question being answered. The City reserves the right to verify any information contained within this report and to request additional information or clarification. The City reserves the right to reject the bid of a bidder who has previously failed to perform properly or to complete in a timely manner contracts of a similar nature, or if investigation shows the bidder unable to perform the requirements of the Contract or if the bidder fails to complete and submit the Bidder's Questionnaire in its entirety. If additional sheets are necessary please attach to this form and reference the applicable number.

Bidder's Name			
Bidder's Address			
City		State / Zip	
Telephone		Fax Number	
Organized under the laws of State of:			
BIDDER'S AUTHORIZED REPRESENTATIVE'S SIGNATURE BELOW		DATE	
			
Print Name:			
Title:			

**1. ORGANIZATION**

- 1.1 How many years has your organization been in business as a Contractor?
- 1.2 How many years has your organization been in business under its present business name?
- 1.3 Under what **other** or former names has your organization operated?
- 1.4 If your organization is a corporation, answer the following:

Date of incorporation:

State of incorporation:

President's name:

Vice-president's name(s):

Secretary's name:

Treasurer's name:

1.5 If your organization is a partnership, answer the following:

Date of organization:

Type of partnership (if applicable):

Name(s) of general partner(s):

1.6 If your organization is individually owned, answer the following:

Date of organization:

Name of owner:

1.7 If the form of your organization is other than those listed above, describe it and name the principals:

## **2. LICENSING**

2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.

**3. EXPERIENCE**

3.1 List the categories of work that your organization normally performs with its own forces.

3.2 Has your organization ever failed to complete any work awarded to it? If yes, provide details on a separate sheet. NO: \_\_\_\_\_ YES: \_\_\_\_\_

3.3 Are there any judgment, claims, arbitration, proceedings or suits pending or outstanding against your organization or its officers? If yes, provide details. NO: \_\_\_\_\_ YES: \_\_\_\_\_

3.4 Within the past five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? If yes, provide details. NO: \_\_\_\_\_ YES: \_\_\_\_\_

3.5 Within the last two years, has any owner of any project threatened to impose or imposed liquidated damages against your organization? If yes, provide details. NO: \_\_\_\_\_ YES: \_\_\_\_\_

3.6 Within the last two years, has your organization constructed any projects where the date of substantial completion was more than 30 days after the contract completion date as determined by the contract and any changes orders? If yes, provide details. NO: \_\_\_\_\_ YES: \_\_\_\_\_

3.7 Within the last 2 years, has your organization constructed any projects where the change orders exceeded 10% of the contract price? If yes, provide details. NO: \_\_\_\_\_ YES: \_\_\_\_\_

3.8 State the total worth of work in progress and under contract:

In Progress	\$
Under Contract	\$

3.9 State the average annual amount of construction work performed during the past five years:

\$
----

#### 4. FINANCIAL

4.1 State that you will provide a copy of your firm's audited financial statements for the past two (2) years, if requested, by the City of Rockville. YES: \_\_\_\_\_ NO: \_\_\_\_\_

4.2 Is your firm currently for sale or involved in any transaction to expend or to become acquired by another business entity? If yes, please explain the impact both in organizational and directional terms. NO: \_\_\_\_\_ YES: \_\_\_\_\_

4.3 Is your firm currently in default on any loan agreement or financing agreement with any bank, financial institution, or other entity? If yes, specify date(s), details, circumstances, and prospects for resolution. NO: \_\_\_\_\_ YES: \_\_\_\_\_

#### 5 SAFETY

5.1 Has your organization been cited by OSHA (or State equivalent) in the past five years? If so, provide a copy of the citation(s). NO: \_\_\_\_\_ YES: \_\_\_\_\_

5.2 Has your organization experienced a work-related fatality in the past 10 years? If so, provide details. NO: \_\_\_\_\_ YES: \_\_\_\_\_

5.3 Provide copies of the last 3-years OSHA Form 300A or OSHA 300 Log. Please omit any personally identifiable or confidential information.

5.4 Provide a copy of your current Workers' Compensation Experience Rating from the NCCI.

5.5 Does your organization have a written safety program? NO: \_\_\_\_\_ YES: \_\_\_\_\_

5.5.1 Describe the safety training programs offered to all employees on the elements of the safety program.

5.6.2 When was the last year the written safety program was audited or updated?

5.6.3 Provide an overview of the elements of your written safety program (i.e., table of contents). (This may be returned to non-awarded bidders.)

5.7 Does your organization hire subcontractors? NO: \_\_\_\_\_ YES: \_\_\_\_\_

5.7.1 Does your organization conduct pre-contractor qualification of these subcontractors specifically focusing on their safety performance? NO: \_\_\_\_\_ YES: \_\_\_\_\_

5.7.2 Describe how your organization manages the safety performance of subcontractors on the jobsite.

5.7.3 Does your organization have a written policy addressing subcontractor’s responsibility for complying with OSHA regulations on jobsites? (i.e., OSHA’s multi-employer citation policy). NO: \_\_\_\_\_ YES: \_\_\_\_\_

**CERTIFICATION**

The above statements are certified to be true and accurate.

BY: \_\_\_\_\_  
Signature Date

\_\_\_\_\_  
Print Signature/Title

**BIDDER REFERENCE FORM**  
**BIDDER MUST COMPLETE AND SUBMIT WITH BID**

The City of Rockville reserves the right to reject bids from any company not meeting the minimum qualifications. The Bidder shall be a competent and experienced contractor with an established reputation within the community. The bidder shall have performed similar work for a minimum period of five (5) years. He shall furnish a representative list of five (5) projects involving work as specified, two of which shall be the last jobs completed. The City may make such investigations as it deems necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish to the City all such information and data for this purpose as the City may request.

Bidder Name	
-------------	--

#1 Reference Organization Name			
Address			
Contact Name			
Contact's Telephone			
Contact's e-mail			
Contract Value	\$		
Scheduled completion date		Percent complete	
Percent of work performed by Bidder's own forces		Actual completion date	
Name of Bidder's project supervisor			
Description of Project Work			

#2 Reference Organization Name			
Address			
Contact Name			
Contact's Telephone			
Contact's e-mail			
Contract Value	\$		
Scheduled completion date		Percent complete	
Percent of work performed by Bidder's own forces		Actual completion date	
Name of Bidder's project supervisor			
Description of Project Work			

#3 Reference Organization Name			
Address			
Contact Name			
Contact's Telephone			
Contact's e-mail			
Contract Value	\$		
Scheduled completion date		Percent complete	
Percent of work performed by Bidder's own forces		Actual completion date	
Name of Bidder's project supervisor			
Description of Project Work			

#4 Reference Organization Name			
Address			
Contact Name			
Contact's Telephone			
Contact's e-mail			
Contract Value	\$		
Scheduled completion date		Percent complete	
Percent of work performed by Bidder's own forces		Actual completion date	
Name of Bidder's project supervisor			
Description of Project Work			

#5 Reference Organization Name			
Address			
Contact Name			
Contact's Telephone			
Contact's e-mail			
Contract Value	\$		
Scheduled completion date		Percent complete	
Percent of work performed by Bidder's own forces		Actual completion date	
Name of Bidder's project supervisor			
Description of Project Work			

**SUB-CONTRACTOR REFERENCE FORM**  
**BIDDER MUST COMPLETE AND SUBMIT WITH BID**

Submit a separate reference form for EACH proposed subcontractor.

Subcontractor's Name			
Address			
Telephone			
Subcontractor's Contact Name			
Description of Work to be Subcontracted			

#1 Reference Organization Name			
Address			
Contact Name			
Contact Name Telephone			
Contact Name e-mail			
Contract Value	\$		
Scheduled completion date		Percent complete	
Description of Project Work			

**SUB-CONTRACTOR REFERENCE FORM**

#2 Reference Organization Name			
Address			
Contact Name			
Contact Name Telephone			
Contact Name e-mail			
Contract Value	\$		
Scheduled completion date		Percent complete	
Description of Project Work			

#3 Reference Organization Name			
Address			
Contact Name			
Contact Name Telephone			
Contact Name e-mail			
Contract Value	\$		
Scheduled completion date		Percent complete	
Description of Project Work			

#4 Reference Organization Name			
Address			
Contact Name			
Contact Name Telephone			
Contact Name e-mail			
Contract Value	\$		
Scheduled completion date		Percent complete	
Description of Project Work			

#5 Reference Organization Name			
Address			
Contact Name			
Contact Name Telephone			
Contact Name e-mail			
Contract Value	\$		
Scheduled completion date		Percent complete	
Description of Project Work			



**SAMPLE DOCUMENT**  
**Do Not Complete or Return**

**CONTRACT PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: That we (1) \_\_\_\_\_  
 \_\_\_\_\_ a (2) \_\_\_\_\_  
 hereinafter called "Principal" and (3) \_\_\_\_\_  
 of \_\_\_\_\_, State of \_\_\_\_\_ hereinafter called the "Surety", are held and firmly  
 bound unto (4) The Mayor and Council of Rockville, Maryland, hereinafter called "Owner", in the penal sum of *(100%*  
*of Contract Amount)* \_\_\_\_\_ (\$) in lawful money of the United States, for the payment of which sum well and  
 truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by  
 these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain contract with  
 the Owner, dated the \_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_, a copy of which is hereto attached and made a part  
 hereof for the construction of: IFB # 01-22 WATER MAIN REHABILITATION PROGRAM, WATER METER  
REPLACEMENT AND EMERGENCY UTILITY REPAIRS.

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings,  
 covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions  
 thereof which may be granted by the Owner, with or without notice to the Surety, and if he shall satisfy all claims and  
 demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and  
 damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and  
 expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain  
 in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change,  
 extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the  
 specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive  
 notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the  
 specifications.

CONTRACT PERFORMANCE BOND

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IT WITNESS WHEREOF, this instrument is executed in two (2) counterparts, each one of which shall be deemed an original, this the day of \_\_\_\_\_, 20\_\_.

ATTEST:

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Corporate Secretary or Asst. Secretary

By \_\_\_\_\_(Seal)  
President or Vice President

\_\_\_\_\_  
(Print or Type Name and Title)

\_\_\_\_\_  
(Print or Type Name and Title)

\_\_\_\_\_  
(Address)

ATTEST:

\_\_\_\_\_  
Surety

\_\_\_\_\_  
Witness as to Surety

By \_\_\_\_\_(Seal)  
Attorney-in-Fact

\_\_\_\_\_  
(Print or Type Name and Title)

\_\_\_\_\_  
(Print or Type Name)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

NOTE: Date of Bond must not be prior to date of Contract.

- (1) Correct name of Contractor
- (2) A Corporation, a Partnership or an Individual
- (3) Name of Surety
- (4) Name of Owner
- (5) If Contract is Partnership, all partners should execute bond



**SAMPLE DOCUMENT**  
**Do Not Complete or Return**

**CONTRACT PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: That we (1) \_\_\_\_\_  
 \_\_\_\_\_ a (2) \_\_\_\_\_  
 hereinafter called "Principal" and (3) \_\_\_\_\_  
 of \_\_\_\_\_, State of \_\_\_\_\_ hereinafter called the "Surety",  
 are held and firmly bound unto (4) The Mayor and Council, of Rockville, Maryland , hereinafter called "Owner", in  
 the penal sum of *(100% of Contract Amount)* \_\_\_\_\_ (\$) in lawful money of the United States, for the payment of  
 which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and  
 severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain contract with  
 the Owner, dated the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, a copy of which is hereto attached and made a part hereof  
 for the construction of: IFB # 01-22 WATER MAIN REHABILITATION PROGRAM, WATER METER  
 REPLACEMENT AND EMERGENCY UTILITY REPAIRS.

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors, and  
 corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract,  
 and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil,  
 gasoline, coal, repairs on machinery, equipment and tools, consumed or used in connection with the construction of  
 such work, and all insurance premiums on said work, and for all labor, performed in such work whether by  
 subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change,  
 extension of time, alteration or addition to the terms of the contact or to the work to be performed thereunder or the  
 specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive  
 notice of any such change, extension of time, alteration or addition to the terms of the contact or to the work or to the  
 specifications.

CONTRACT PAYMENT BOND

PAGE 2

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in two (2) counterparts, each one of which shall be deemed an original, this the \_\_\_\_ day of \_\_\_\_\_ 20\_\_.

ATTEST:

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Corporate Secretary or Asst. Secretary

By \_\_\_\_\_ (Seal)  
President or Vice President

\_\_\_\_\_  
(Print or Type Name and Title)

\_\_\_\_\_  
(Print or Type Name and Title)

\_\_\_\_\_  
(Address)

ATTEST:

\_\_\_\_\_  
Surety

\_\_\_\_\_  
Witness as to Surety

By \_\_\_\_\_ (Seal)  
Attorney-in-Fact

\_\_\_\_\_  
(Print or Type Name and Title)

\_\_\_\_\_  
(Print or Type Name)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

NOTE: Date of Bond must not be prior to date of Contract.

- (1) Correct name of Contractor
- (2) A Corporation, a Partnership or an Individual
- (3) Name of Surety
- (4) Name of Owner
- (5) If Contract is Partnership, all partners should execute bond



**SAMPLE DOCUMENT**  
**Do Not Complete Or Return**

STANDARD FORM OF AGREEMENT BETWEEN THE CITY OF ROCKVILLE  
AND CONTRACTOR

This Agreement, made this \_\_\_\_\_ day of \_\_\_\_\_, 2023, by and between

THE MAYOR AND COUNCIL OF ROCKVILLE, MARYLAND, hereinafter referred to as the  
"COUNCIL" and

(A) \_\_\_\_\_ hereinafter referred to as the  
"CONTRACTOR".

WITNESSETH, that the CONTRACTOR and the COUNCIL for the consideration hereinafter named, agree as follows:

**ARTICLE 1.** The COUNCIL agrees to pay the CONTRACTOR for the performance of the contract the sum

of \_\_\_\_\_ dollars  
(\$ \_\_\_\_\_)

**ARTICLE 2.** The CONTRACTOR agrees to furnish separate 100% performance and payment bonds in such form as shall be acceptable to the COUNCIL.

**ARTICLE 3.** The CONTRACTOR agrees to furnish all of the machines, equipment, material, and/or labor described in the specifications entitled Invitation For Bid # IFB 01-22 Water Main Rehabilitation Program, Water Meter Replacement and Emergency Utility Repairs.

**ARTICLE 4.** The COUNCIL may make any alterations, deviations, additions or omissions from the aforesaid specifications, which it may deem proper, without affecting or making void this contract; and in such cases the COUNCIL shall value or appraise such alterations and recommend the amount added to or deducted from the amount herein agreed to be paid to the CONTRACTOR for the excess or deficiency occasioned by such alterations. In case any alterations or deviations are made, such further time may be allowed for completion of the work, caused by such alterations or deviations as the purchasing agent or an appropriate department head of the City of Rockville shall decide to be reasonable.

**ARTICLE 5.** If the CONTRACTOR shall be adjudged bankrupt or if he shall make a general assignment for the benefit of his creditors, or if a Receiver shall be appointed on account of his insolvency, or if he shall persistently or repeatedly refuse or shall fail, except in case where extension of time is provided, to supply enough properly skilled workmen or proper materials or if he should fail to make prompt payment to subcontractors for materials or labor, or disregard law, ordinances or the instructions of the COUNCIL or otherwise be guilty of substantial violation of

any provision of this Agreement, then the COUNCIL may, without prejudice to any other right or remedy, and after giving the CONTRACTOR reasonable notice, terminate the employment of the CONTRACTOR and take possession of the machines, equipment and material already delivered or in process of delivery.

**ARTICLE 6.** The CONTRACTOR and the COUNCIL agree that this Agreement, the Invitation for Bid or the request for quotation and all of the specifications therewith and all modifications thereof constitute the Contract, and that they are fully a part of the Contract as if hereto attached or herein repeated and that for themselves and each of them, their successors, personal representatives and assigns hereby agree to the performance of the covenants herein contained.

**ARTICLE 7.** The CONTRACTOR, with the execution of this Contract, makes assurance that all materials necessary for the completion of this project are now available to him or will be available so as not to cause delay in the time specified for completion, nor will there be any further expense to the COUNCIL by reason of any special expense imposed by his supplier or fabricator after this Contract is executed.

**ARTICLE 8.** The CONTRACTOR at all times shall observe and comply with all Federal and State Laws and local laws, ordinances and regulations in any manner affecting the conduct of the work; and all such other orders or decrees as exist at present and those which may be enacted later, of bodies or tribunals having any jurisdiction or authority over the work, and shall indemnify and save harmless the Mayor and Council and all of its officers, agents, and servants against any claim or liability arising from or based on the violation of any such laws, by-laws, ordinances, regulations, orders or decrees whether by himself or his employees.

**ARTICLE 9.** The CONTRACTOR shall indemnify and save harmless the Mayor and Council of Rockville, Maryland, and all its officers, agents and servants from all suits, actions and damages and costs, of every name and description to which the COUNCIL may be subjected or put by reason of injury to persons or property as a result of the work, whether caused by negligence or carelessness on the part of the CONTRACTOR, its servants or agents or to other cause.

**ARTICLE 10.** The CONTRACTOR will not discriminate against any employee or applicant for employment because of age (in accordance with applicable law), ancestry, color, national origin, race, ethnicity, religion, disability, genetics, marital status, pregnancy, presence of children, gender, sexual orientation, gender identity or expression, or veteran status. The Contractor will take affirmative action to ensure that applicants are employed, and the employees are treated fairly and equally during employment with regard to the above. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment, layoff or termination, rates of pay or other form of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Contractors must also include the same nondiscrimination language in all subcontracts.

If the Contractor fails to comply with nondiscrimination clauses of this contract or fails to include such contract provisions in all subcontracts that subcontractors will not discriminate

against any employee or applicant for employment in the manner described above, this contract may be declared void AB INITO, cancelled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further contracts with the City of Rockville. Any employee, applicant for employment, or prospective employee with information concerning any breach of these requirements may communicate such information to the City Manager who shall commence a prompt investigation of the alleged violation. Pursuant to such investigation, the Contractor will permit access to the Contractor's books, records, and accounts. If the City Manager concludes that the Contractor has failed to comply with nondiscrimination clauses, the remedies set out above may be invoked.

**ARTICLE 11.** The CONTRACTOR agrees to provide the City’s Project Manager or designated City staff proof of vaccination of any employee, subcontractor, or agent prior to such employee, subcontractor, or agent, pursuant to this Agreement, entering a City facility and performing any service or making any delivery in close proximity to one or more City employees, members of the Mayor and Council, members of a City board, commission or task force, or members of the general public in the City. Proof of vaccination means the demonstration of having received a full dose of a COVID-19 vaccine authorized by the Food and Drug Administration in a manner and on a schedule consistent with current United States Centers for Disease Control and Prevention guidelines. This paragraph shall not apply to any deliveries made pursuant to this Agreement by a common carrier.

IN WITNESS WHEREOF, the said  
(A) \_\_\_\_\_ and the  
\_\_\_\_\_ COUNCIL have caused these presents to be signed and sealed.

**For Corporations.**

Corporation: \_\_\_\_\_

\*By: \_\_\_\_\_ (Seal)  
(Either president or vice-president. If other person is authorized, authorization in form of corporate resolution must be attached.)

Witness: \_\_\_\_\_  
(Should be secretary or Asst. secretary.)

**\*Corporate seal must be impressed through name of person signing for corporation.**

**For individuals or partnerships.**

Name: \_\_\_\_\_ (Seal)  
(Either owner or partner)

Witness: \_\_\_\_\_

**MAYOR AND COUNCIL OF ROCKVILLE, MARYLAND**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Robert DiSpirito, City Manager

ATTEST

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Sara Taylor-Ferrell, City Clerk/Director of Council Operations

Approved as to form and legality:

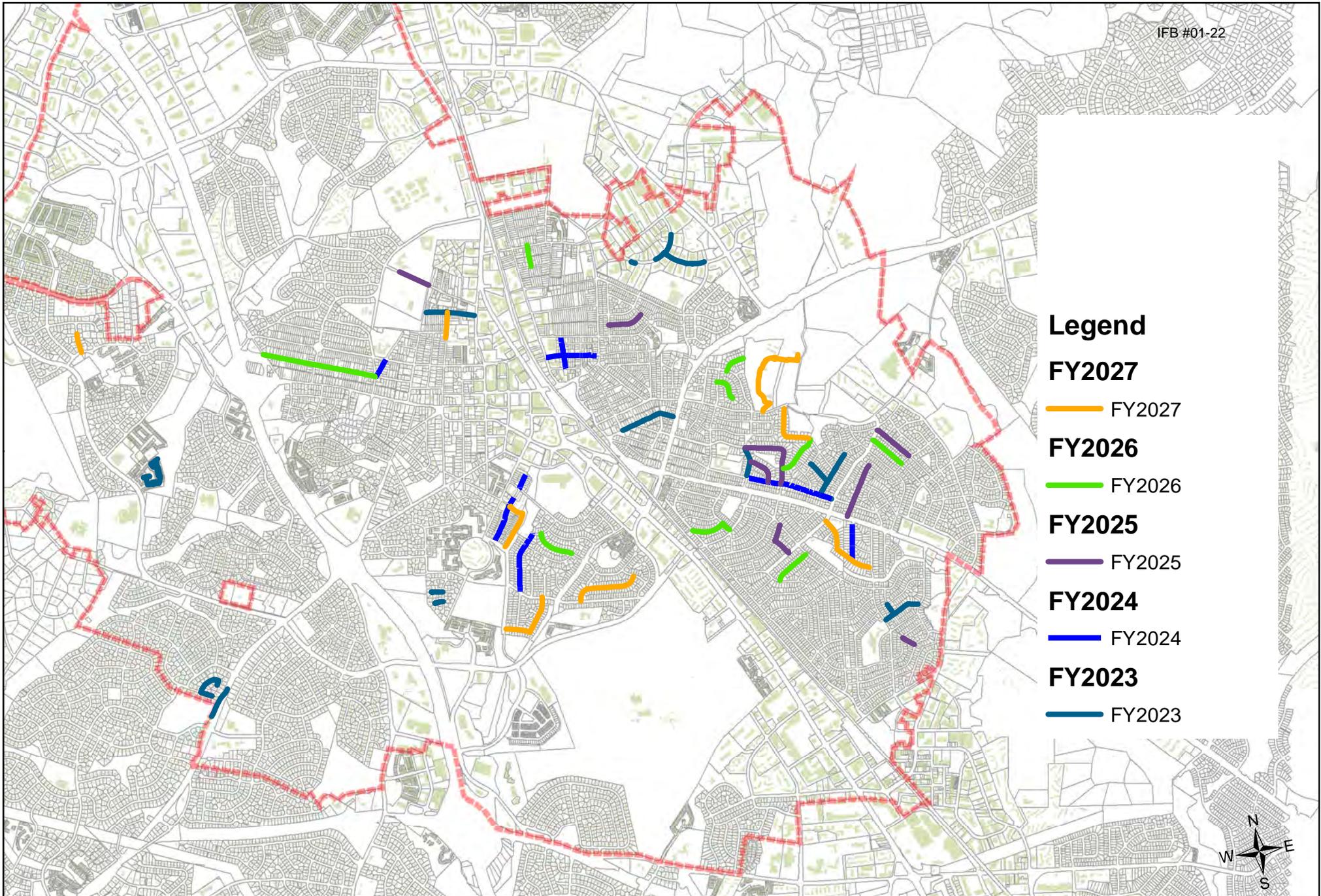
\_\_\_\_\_  
City Attorney Date: \_\_\_\_\_

**NOTE (A): The CONTRACTOR shall enter the exact name of the business. An individual trading as a company shall enter: John Doe dba Doe Masonry Company.**

## Appendix A

5-YEAR SCHEDULE FOR THE WATER MAIN REHABILITATION PROGRAM							
	Project Name	Limits	Start Construction - Fiscal Year	Water Main (LF) to be Replaced	Miles	FH < 500 gpm	FH 500-1,000 gpm
1	*Reading Avenue	Grandin to First Street	2023	1,400		0	2
2	Lofstrand/Taft	Lofstrand: All; Taft: Lofstrand to First	2023	1,850		0	0
3	Edmonston Dr.	Grandin to Maple	2023	700		0	1
4	Dean Dr/Grandin Ave	Dean: Grandin to Calvin; Grandin: Dean to Broadwood	2023	1,850		0	2
5	Bernerd Place	Calvin to Dean	2023	600		0	1
6	Stillwell Rd; Midway Ave	Stillwell: All; Midway: Denfield to Stillwell	2023	1,250		0	3
7	North Street	McLane to Washington	2023	1,250		0	2
8	Vallingby Cir/Tapiola Ct	west of Scandia Way	2023	500		0	0
9	Crestview Dr and Ct	Portions of the deadend	2023	360		0	0
10	Rockshire Community	Kirkfield Ct and 900 block water improvements	2023	650		0	0
<b>Planned Total for FY2023</b>				<b>10,410</b>	<b>1.972</b>	<b>0</b>	<b>11</b>
1	Virginia Avenue	Crabb to England Terrace	2024	800		0	2
2	Luckett Street	Beall to Anderson	2024	500		0	1
3	Woodland Road	Stonestreet to Horners	2024	1,300		0	2
4	Okinawa Ave.	All	2024	700		0	1
5	Grandin Avenue	Edmonston to Broadwood	2024	2,500		0	4
6	Harrington Road	Mercer to Edmonston	2024	1,500		0	1
7	Blandford Street	All	2024	1,800		0	2
<b>Planned Total for FY2024</b>				<b>9,100</b>	<b>1.723</b>	<b>0</b>	<b>13</b>
1	Woodston Road	Burgandy to Longwod	2025	1,000		0	2
2	Leahy Drive	Ridgway to Vande.	2025	400		0	1
3	Farr Road	Allison to Broadwood	2025	400		0	1
4	Allison Drive	Crawford to Farr	2025	500		0	0
5	Gruenther Avenue	Broadwood to Marshall	2025	975		0	2
6	Martins Lane	8-inch to Washington	2025	1,400		0	2
7	Cedar Lane	Veirs to Marshall	2025	1,400		0	2
8	Grandin Circle	Edmonston to Grandin	2025	800		0	1
9	Maple/Clagett	Edmonston to Grandin	2025	1,800		0	2
<b>Planned Total for FY2025</b>				<b>8,675</b>	<b>1.643</b>	<b>0</b>	<b>13</b>
1	Farragut Avenue	Broadwood to Marshall	2026	900		0	1
2	Silver Rock Road	Gladstone to Clagett	2026	1,100		0	2
3	Agnew Drive	Lewis to Edmonston	2026	1,100		0	2
4	Burdette Road	All	2026	600		0	1
5	Lenmore Avenue	Frederick to Spring	2026	550		0	1
6	Highwood Road	All	2026	900		0	1
7	Kennon Court	All	2026	900		0	1
8	Anderson Ave.	Nelson to Laird	2026	2,850		0	3
9	Brice Road	Mercer to Bowie	2026	950		0	1
<b>Planned Total for FY2026</b>				<b>9,850</b>	<b>1.866</b>	<b>0</b>	<b>13</b>
1	Gladstone Drive	Bmore to Silver Rock Rd	2027	1,300		0	2
2	North Van Buren	North St to Dawson	2027	700		0	1
3	East Argyle/Lynfield	Blandford to Cabin John	2027	1,350		0	2
4	Carter Road	Edmonston to Leverton	2027	1,000		0	2
5	Welsh Drive	Edmonston to Julian	2027	1,800		0	3
6	Coral Sea Drive	Veirs Mill to Broadwood	2027	900		0	4
7	Glenview Mansion	Lyon to Rec Building	2027	800		0	4

5-YEAR SCHEDULE FOR THE WATER MAIN REHABILITATION PROGRAM							
	Project Name	Limits	Start Construction - Fiscal Year	Water Main (LF) to be Replaced	Miles	FH < 500 gpm	FH 500-1,000 gpm
8	Leverton Road	CJ Parkway to Carter	2027	800		0	2
9	Balmoral Drive	Balmoral Ct to Dundee	2027	500		0	1
Planned Total for FY2027				9,150	1.733	0	21
<b>GRAND TOTAL</b>				<b>47,185</b>	<b>8.94</b>	<b>0</b>	<b>71</b>



### Legend

#### FY2027

— FY2027

#### FY2026

— FY2026

#### FY2025

— FY2025

#### FY2024

— FY2024

#### FY2023

— FY2023



**Department of Public Works  
Engineering Division**

111 Maryland Avenue • Rockville, Maryland 20850-2364  
Phone 240.314.8500 • Fax 240.314.8539

## Appendix B 5 Year Map

DISCLAIMER:  
This drawing is intended to be used for reference and illustrative purposes only. This drawing is not a legally recorded plan, survey, or engineering schematic and it is not intended to be used as such. This drawing is a compilation of records, information and data developed and maintained in various City offices. Map layers were created from different sources at different scales, and the actual or relative geographic position of any feature is only as accurate as the source information.

DATE: 7/14/2021 | AUTHOR: mbrew



Department of Public Works  
111 Maryland Avenue, Rockville, MD 20850-2364

## As-Built Plan Requirements

1. All entities who construct public water or sewer lines, storm drainage systems, bike paths, sidewalks or streets to be maintained by the City of Rockville must submit an “As-built” set of construction drawings for approval as a part of the City’s acceptance process. Additionally, entities constructing any stormwater management or stream restoration facilities must submit an “As-Built” set of construction drawings. The initial submittal shall be three (3) sets of “red-lined” marked up prints, which should be delivered to the Department of Public Works counter at City Hall (Attn: Don Jackson, Engineering Technician). This submittal shall include recorded copies of any public easements required with the project.
2. The As-Built drawings shall clearly show any changes or variations from the approved design. Horizontal variations greater than 1.0 foot should be shown dimensionally or through plus stations. Horizontal variations greater than 10.0 feet should also show the graphic relocation of the object. Vertical elevation variations greater than 0.1 feet shall be provided for all shown design elevations. A benchmark elevation and benchmark description and location shall also be provided on each plan sheet.
3. As-Built plans for a surface SWM facility shall include the following additional information.
  - a) Length, width, slope information and depth or contours (1 foot intervals) of the pond area along with a verification of the original design volume.
  - b) A benchmark on the riser, inlet headwall, or other approved location.
  - c) Revised design computations verifying the functionality of the pond. Computations shall be submitted directly to the DPW project engineer, along with an additional paper copy of the As-Built plans.
  - d) The grading/storage volumes must be approved by DPW prior to landscaping/planting. All plantings must be added to the As-Built plans after plant installation. As-Built plans will not be approved without required plantings.

NOTE: As-Built data, which shows that the constructed facility varies from the original design storage elevations by greater than or equal to 10%, will have to be corrected (regraded) prior to submission for review unless storage is verified. All constructed features not previously approved on the original construction drawings may have to be modified at the City’s discretion.

4. All As-Built information shall be blocked in and shown on the original construction drawings and shall be blocked in as thus 386.25.
5. The As-Built Certificate (shown on the following page) shall be signed and sealed by a MD professional engineer or a MD professional land surveyor and shall appear on the cover sheet of the As-Built Plan set. All sheets included in the permit set must be submitted in the final as-built set.
6. The City’s inspector and project engineer will review the As-Built information. The design engineer will be notified to submit mylars for As-Built approval once all changes have been satisfactorily shown. The As-Built information shall preferably be shown on the original construction drawings (i.e., the original mylars with the permit approval stamp and original P.E. seal). Placing As-Built information upon a scanned image or other reproduction of the original construction drawings is acceptable so long as the quality, integrity, and legibility of the original drawings are substantially preserved without undue compromise. As-Built drawings will be scanned by the City for archiving, so both the As-Built and original information must be sufficiently discernible. The As Built plan set shall be submitted to Department of Public Works Engineering Division (Attn: Don Jackson, Engineering Technician) for signature and shall contain the same red-lined information as approved in the As-Built review. No paper prints, paper or mylar sepias will be accepted.

**AS-BUILT CERTIFICATE**

I hereby certify that the information shown on this record drawing is an accurate and complete representation of data established from field information obtained under the direction of a Professional Land Surveyor or a Professional Engineer, and that the physical dimensions or elevations shown thus 37.55' are as-built information and the facility was constructed according to the approved plans, except as otherwise noted hereon.

---

Name

---

License #

---

Title

---

Date

## Appendix D

**EROSION AND SEDIMENT CONTROL NOTES**

November 2016

1. The Applicant must obtain inspection and approval by the City of Rockville Department of Public Works (DPW) at the following points:
  - a. At the required preconstruction meetings.
  - b. Following installation of sediment control measures and prior to any other land disturbing activity.
  - c. During the installation of a sediment basin or stormwater management structure at the required inspection points (see Inspection Checklist on plan). Notification prior to commencing construction is mandatory.
  - d. Prior to removal or modification of any sediment control devices.
  - e. Prior to final acceptance.
2. All erosion control measures are to be constructed and maintained in accordance with applicable published standards and specifications and the most current "Maryland Standards and Specifications for Soil Erosion and Sediment Control."
3. The Applicant shall construct all erosion and sediment control measures per the approved plan and construction sequence, shall have them inspected and approved by DPW prior to beginning any other land disturbances, shall ensure that all runoff from disturbed areas is directed to the sediment control devices and shall not remove any erosion or sediment control measures without prior permission from DPW.
4. Any request for changes to the approved sediment control plan or sequence of construction must be submitted to the DPW Sediment Control Inspector and approved before implementing changes. Major changes will require a plan revision.
5. The Applicant shall protect all points of construction ingress and egress to prevent the deposition of materials onto traversed public thoroughfare(s). All materials deposited onto public thoroughfare(s) shall be removed immediately.
6. The Applicant shall inspect daily and maintain continuously in effective operating condition all erosion and sediment control measures until such time as they are removed with prior permission from the DPW Sediment Control Inspector.
7. All sediment basins, trap embankments, swales, perimeter dikes and permanent slopes steeper or equal to 3:1 shall be stabilized with sod, seed and anchored straw mulch or other approved stabilization measures, within seven calendar days of establishment. All areas disturbed outside of the perimeter sediment control system must be minimized and stabilized immediately. Maintenance must

be performed as necessary to ensure continued stabilization. Restabilization or overseeding will be required, if necessary.

8. The Applicant shall apply sod, seed and anchored straw mulch, or other approved stabilization measures to all disturbed areas within seven (7) calendar days after stripping and grading activities have ceased on that area. Maintenance shall be performed as necessary to ensure continued stabilization. Other active construction areas that are not being actively graded (i.e. routes for construction vehicles within a site) may be required to be stabilized at the direction of the inspector. Stockpiles, which have not been used for seven (7) calendar days, shall be stabilized through the application of sod, seed, and anchored straw mulch, or other approved stabilization methods.
9. Prior to removal of sediment control measures, the Applicant shall stabilize all contributory disturbed areas using sod or an approved permanent seed mixture with required soil amendments and an approved anchored mulch. Wood fiber mulch may only be used in seeding season to promote sheet flow drainage. Areas brought to finished grade during the seeding season shall be permanently stabilized within seven (7) calendar days of establishment. When property is brought to finished grade during the months of November through February, and permanent stabilization is found to be impractical, approved temporary seed and straw anchored mulch shall be applied to disturbed areas. The final permanent stabilization of such property shall be completed prior to the following April 15.
10. The site work, materials, approved Sediment Control and Stormwater Management Plans, and any required test reports shall be available, at the site for inspection by duly authorized officials of the City of Rockville.
11. Surface drainage flows over unstabilized cut and fill slopes shall be controlled by either preventing drainage flows from traversing the slopes or by installing mechanical devices to lower the water downslope without causing erosion. Dikes shall be installed and maintained at the top of cut or fill slopes until the slope and drainage area to it are fully stabilized, at which time they must be removed and final grading done to promote sheet flow drainage. Mechanical devices must be provided at points of concentrated flow where erosion is likely to occur.
12. Permanent swales or other points of concentrated water flow shall be stabilized with sod or seed with approved erosion control matting or by other approved stabilization measures.
13. Temporary sediment control devices shall be removed, with permission of DPW, within 30 calendar days following establishment of permanent stabilization in all contributory drainage areas. If establishment is not full and uniform as determined by the DPW Sediment Control Inspector, overseeding will be required. Stormwater management structures used temporarily for sediment control shall be converted to the permanent configuration within this time period as well.
14. No permanent cut or fill slope with a gradient steeper than 3: 1 will be permitted in lawn maintenance areas. A slope gradient of up to 2:1 will be permitted in areas that are not to be maintained provided that those areas are indicated on the erosion and sediment control plan with a low-maintenance ground cover specified for permanent stabilization. Slope gradient steeper than 2:1 will not be permitted with vegetative stabilization.
15. The Applicant shall install a splash block at the bottom of each downspout unless the downspout is connected by a drain line to an acceptable outlet.
16. All water pumped from an excavation during construction shall be pumped either to sediment tanks and/or sediment traps. No water will be pumped to the storm drain system or swale. De-watering

shall be performed in accordance with the most current Maryland Standards and Specifications for Soil Erosion and Sediment Control.

17. For finished grading, the Applicant shall provide adequate gradients so as to: (1) prevent water from standing on the surface of lawns more than 24 hours after the end of a rainfall, except in designated drainage courses and swale flow areas which may drain as long as 48 hours after the end of a rainfall, and (2) provide positive drainage away from all building foundations or openings.
18. Sediment traps or basins are not permitted within 20-feet of a building, which exists or is under construction. No building may be constructed within 20-feet of a sediment trap or basin.
19. All inlets in non-sump areas shall have asphalt berms installed at the time of base paving to direct runoff to inlets.
20. The DPW Sediment Control Inspector has the option of requiring additional sediment control measures, if deemed necessary.
21. All trap elevations are relative to the outlet elevation, which must be on existing undisturbed ground.
22. Vegetative stabilization shall be performed in accordance with the most current Maryland Standards and Specifications for Soil Erosion and Sediment Control.
23. Temporary sediment trap(s) shall be cleaned out and restored to the original dimensions when sediment has accumulated to a point one-half the depth between the outlet crest and the bottom of the trap.
24. Sediment removed from traps shall be placed and stabilized in approved areas in such a manner that it does not foul existing or proposed storm drainage systems or areas already stabilized. Sediment shall not be placed within a flood plain or wetland.
25. All sediment basins and traps must be surrounded with a welded wire safety fence. The fence must be at least 42-inches high, have posts spaced no farther apart than eight-feet, have mesh openings no greater than two-inches in width and four-inches in height with a minimum of 14 gauge wire. Safety fence must be maintained in good condition at all times.
26. Off-site spoil or borrow areas must have approved sediment control plans.
27. Protect all trees to be preserved during construction in accordance with the approved Forest Conservation Plan.
28. The Applicant is responsible for all actions of contractor and subcontractors, including repairing damage to sediment control devices and existing infrastructure.
29. The Applicant shall comply with all provisions of the NPDES Construction Discharge Permit. A copy of the permit and all required reports shall be available on site at all times.

## Appendix E



## WATER AND SEWER NOTES

February 2019

1. All water and sewer construction shall be in accordance with the latest General Specifications and Standard Details of the Washington Suburban Sanitary Commission (WSSC), latest General specifications and Standard Details of the Maryland State Highway Administration, and/or the City of Rockville Department of Public Works (DPW), unless otherwise noted.
2. The Applicant must maintain all sediment control devices and ensure that all points of construction ingress and egress are protected as directed by DPW to prevent tracking of mud and dirt onto public rights-of-way (sidewalks, roads, etc.) or affecting adjacent areas.
3. The Applicant shall not operate any valves located on the existing public system. Requests to operate valves must be submitted to Chief of Construction Management 48 hours in advance.
4. Abandonment of water service connections and sewer service connections shall be made at the main line as directed by DPW. To abandon water service connections (two-inches or less), the tap hole is to be plugged with a brass plug and the valve and corporation must be removed at the main. All other house connections must be abandoned by cutting out the section of the water main and sleeving in a new pipe. To abandon sewer service connections, tees or saddles must be removed at the main and new pipe will be sleeved in.
5. All public water and sewer mains to be placed out of service (existing and proposed) must be completely removed and disposed. Abandonment of utilities in place may be allowed as an exception, only if adequate justification is provided to the DPW - Engineering Division. If permitted, utilities abandoned in place must be completely filled with lean mix concrete or flowable fill, disconnected at the main, and capped on both ends.

Shutdowns to Existing Water System: Any shutdown shall be made at hours determined by DPW in order to cause the least disturbance to existing customers. The Applicant shall notify the Chief of Construction Management in writing at least 18 calendar days prior to making the shutdown and submit for approval a schedule and method to complete the proposed shutdown and associated work. The Construction Management Division will notify the City Utilities Section at 240-314-8567 to arrange for valve operation. DPW must provide a minimum of two weeks of notice to affected properties. The shutdown will then be made at the designated time in accordance with the directions of the Chief of Construction Management. Test pit information on existing crossings must be provided a minimum of 48 hours prior to construction.

Water Mains: Materials for all water mains are to be ductile iron Pipe with Zinc Coating Pressure Class 350. All pipes are to be cement lined, minimum of 1/8-inch thick. All pipes and fittings are to be restrained, including all house connections four-inch and greater. All pipes are to be U.S. Pipe "TYTON

JOINT” or an approved equal. Water pipe shall be installed in accordance with WSSC Standard Details and Standard Specifications, Section 02510.

Valves: Valves shall conform to the latest AWWA Specifications and shall be a clockwise turn to close, mechanical joint. All valves shall be resilient seat gate valves. Valve box shall be two-piece sliding type adjustable and heavy duty domestic (Bingham & Taylor or approved equal). The covers shall say ‘WATER’ only. Any valve cover/lid with the text ‘WSSC’ will be rejected. Valves boxes for up to 36-inches in height shall weigh at least 75 pounds and valve lids shall weigh at least 14.5 pounds. Skirt size shall be two and a half inches

Fire Hydrants and Fire Hydrant Connections: The Applicant must test pit all fire hydrant leads and valves before removing or replacing a hydrant to confirm existence or condition of strapping.

Fire hydrants shall be set two-feet behind the face of curb unless otherwise indicated on the drawing. Each hydrant shall be set exactly plumb, at the grade provided, and shall be jointed to the fire hydrant connection at the foot of the barrel. Care shall be taken to place the steamer outlet normal to the street line and any hydrants placed askew shall be reset as required by the City.

Fire hydrants shall be firmly set in a bed of screened gravel, which shall extend one-foot below the bottom of the hydrant and be filled in and around it. The hydrant shall be firmly braced at the back, opposite the inlet pipe. The total amount of gravel used shall be at least 1/3 of a cubic yard. Fire hydrants shall not be blocked.

Fire hydrant connections of six-inch cement lined ductile iron pipe shall be laid at the points shown on the drawings and shall be extended either to fire hydrants to which they shall be connected or to such points as shall be designated. Fire hydrant connections shall be laid in all particulars in a similar manner to the water mains themselves.

Fire hydrants shall be Mueller or approved equal Traffic Model Types, which consists of break-away bolts, standpipe, and couplings. All fire hydrants shall be restrained to the water main using Mega-lugs or approved equal. Hydrants shall be factory painted with two coats of rust-preventive paint. All hydrants barrels shall be painted Safety Yellow. The bonnet and three nozzles shall be color coded as per the National Fire Protection Association (NFPA) standards. The colors are based upon the hydrant’s available fire flow and as determined by the Public Works Engineering Division:

<b>FLOW</b>	<b>RUSTOLEUM ITEM #</b>	<b>COLOR</b>
< 500 gpm	K7764402	Safety Red
500 – 1,000 gpm	3455402	Safety Orange
1,000-1,500 gpm	3433402	Safety Green
>1,500 gpm	K7725402	Safety Blue
All barrels	245479	Safety Yellow

Fire hydrants shall be as listed in WSSC General Conditions/Standard Specifications, Section 02510.

Fire hydrants shall have 5-1/4-inch, three-way (two hose nozzles and one pumper nozzle), six-inch diameter mechanical joint inlet connection clockwise turn close, National Standard operating nut.

Polyethylene Encasement: All ductile iron pipe, fittings, and appurtenances shall be V-Bio enhanced polyethylene encased in accordance with AWWA C 105 method 'A' and WSSC specifications; section 02510. After the pipe has been assembled in trench, Applicant shall carefully inspect polyethylene encasement for damage and repair in accordance with AWWA C 105 and manufacturer's recommendations.

Storage: The Applicant shall store pipe and materials on site, so as not to damage the materials, and shall maintain such storage areas in a hazard free and safe condition at all times.

Lubricants: Lubricants shall be potable hydrogenated vegetable oil that is insoluble in cold water and does not impart taste or odor. The lubricant shall not contain detergents, soaps or organic solvent either aliphatic or aromatic and shall be certified as nontoxic to humans or animals. The lubricant shall be of a semi-paste consistency, which will readily stick to the inside of the bell of the pipe when applied by hand. It shall remain in a usable state through the temperature in which water pipe is normally installed.

Water Service Connections: All 1-inch connections must be tapped and where saddles are required, the service saddle must be Mueller DR2S Series or approved equal.

Corporation stops: Corporation stops shall be as per ASI/AWWA C800 with working and test pressures as per WSSC Specifications. The corporations shall be bronze (ASTM B62).

Tap, sleeve and valve (T, S & V) assemblies: All T, S, and V assemblies are to be hydro-tested and witnessed by DPW at the time of installation.

Cover: All water mains shall be installed with minimum three and a half feet of cover below finished grade or three-feet of cover below finished subgrade.

Blocking for Existing Mains: Block all existing fittings with concrete per plans and Standard WSSC Specifications and Standard Details. Mechanical joint fittings, bolts, etc. must be protected from concrete.

Water Main Tests: The Applicant shall accomplish low (six hour) and high pressure (two hour) tests in accordance with WSSC Standards and Specifications. Prior to connection connecting new water mains or on-site water systems to the existing public system, the Applicant will conduct a 24-hour bacterial test. Passing test results must be provided from a lab certified by the Maryland Department of the Environment and shall be in accordance with the Standard Methods for Examination of Water and Wastewater.

- The Applicant must not use existing or new water mains or appurtenances for temporary restraint or support during pressure tests.
- Back flow prevention is required when testing a new main as per WSSC specifications.

Water Meters: Water meters shall be located one-foot behind the property line in a grass area. Water meters shall not be located in private driveways or aprons. Yoke angle valves should be compatible with Ford 500 series meter yokes.

Material Requirements for Sewer: DPW shall accept the following materials for the construction of the main line sewer, except as otherwise specified on the plans:

1. Pipes four-inches through 15-inches in diameter:
  - a. Polyvinyl chloride pipe (PVC) meeting ASTM D3034-78, wall thickness SDR 35, joints shall be watertight.

2. Pipes 18-inches and greater:
  - a. Ductile Iron, Pressure Class 350, cement lined minimum 1/8-inch thick with US Pipe TYTON JOINT or approved equal;
  - b. Polyvinyl chloride pipe (PVC) meeting ASTM F679, thickness T-1, joints shall be watertight.

Ductile Iron Pipe may be used under special conditions such as steep slopes or stream crossings.

Pipe for sewer house connections shall be four-inch polyvinyl chloride pipe and fittings as specified above, and shall be connected to the main line by the use of tees.

Flexible gaskets shall be used for connections to precast and existing manholes, and shall be A lock as manufactured by Atlantic Precast Concrete, Inc. or equal.

Mortar used in the installation of A Locks or the filling of any void in manholes walls, inside and out, shall be quick setting, non-shrink such as Octocrete, Speedcrete, Permacrete, or equal.

Installation of Sanitary Sewer: Sewer pipe shall be installed in accordance with WSSC Standard Details and Specifications, Section 02530. Hydro-hammers may not be used within three-feet of the top of pipe. Exercise care to ensure adequate compaction around structures and prevent damage to pipe at connections to manholes.

Horizontal deflection of pipe shall be accomplished in accordance with manufacturer's specifications.

Connection to Existing Sewers and Manholes: Connections must be as per WSSC Standard Details and Specifications, Section 02530.

Sewer Main Pressure Tests: The Applicant shall accomplish pressure tests in accordance with WSSC Standards and Specifications. DPW reserves the right to video the sewer main for quality control purposes.

Cleanouts: Cleanouts are to be installed on each sewer service connection and be located at the property line, in a grass area. Cleanout caps shall be cast iron with a brass plug. Provide concrete cleanout blocks on all sewer service connections at bottom of cleanout per WSSC Standard Details.

When drop connections from the building are to be used at the property line cleanout, the "Y" of the cleanout shall be encased per WSSC Standard Details and Standard Specifications.

## Appendix F

**Chapter 31B – Noise Control**

- § 31B-2. Definitions.
- § 31B-3. Regulations.
- § 31B-4. Noise control advisory board.
- § 31B-5. Noise level and noise disturbance violations.
- § 31B-6. Noise level and noise disturbance standards for construction.
- § 31B-7. Measurement of sound.
- § 31B-8. Noise sensitive areas.
- § 31B-9. Leafblowers.
- § 31B-10. Exemptions.
- § 31B-11. Waivers.
- § 31B-12. Enforcement and penalties.

**Sec. 31B-1. Declaration of policy.**

- (a) The County Council finds that excessive noise harms public health and welfare and impairs enjoyment of property. The intent of this Chapter is to control noise sources to protect public health and welfare and to allow the peaceful enjoyment of property. This Chapter must be liberally construed to carry out this intent.
- (b) The Department of Environmental Protection administers this Chapter.
  - (1) The Department must coordinate noise abatement programs of all County agencies, municipalities, and regional agencies.
  - (2) A County agency, municipality in which this Chapter applies, or regional authority subject to County law must not adopt a standard or regulation that is less stringent than this Chapter or any regulation adopted under this Chapter.
  - (3) The Director may form an Interagency Coordinating Committee to assist the Director in coordinating noise control policy. If the Director forms the Committee, the Director must designate an individual to chair the Committee. The members of the Committee should be designated by County, local, and regional agencies that the Director invites to participate.
  - (4) The Department must establish procedures to identify and reduce noise sources when the County plans and issues permits, variances, exemptions, or approvals.
  - (5) The Department should make recommendations to the County Executive, County Council, and Planning Board regarding noise control policy, regulations, enforcement, and noise sensitive areas. (1996 L.M.C., ch. 32, § 1.)

**Editor's note**—See County Attorney Opinion dated 3/16/92 explaining that the Washington Metropolitan Area Transportation Authority (esp. Metrorail) is subject to the County's noise control law, although an exemption may be obtained if it is in the public interest.

**Sec. 31B-2. Definitions.**

In this Chapter, the following words and phrases have the following meanings:

- (a) *Construction* means temporary activities directly associated with site preparation, assembly, erection, repair, alteration, or demolition of structures or roadways.
- (b) *dba* means decibels of sound, as determined by the A-weighting network of a sound level meter or by calculation from octave band or one-third octave band data.
- (c) *Daytime* means the hours from 7 a.m. to 9 p.m. on weekdays and 9 a.m. to 9 p.m. on weekends and holidays.

- (d) Decibel means a unit of measure equal to 10 times the logarithm to the base 10 of the ratio of a particular sound pressure squared to the standard reference pressure squared. For this Chapter, the standard reference pressure is 20 micropascals.
- (e) *Department* means the Department of Environmental Protection.
- (f) *Director* means the Director of the Department of Environmental Protection or the Director's authorized designee.
- (g) *Enforcement officer* means:
- (1) for a noise originating from any source:
    - (A) an employee or agent of the Department designated by the Director to enforce this Chapter;
    - (B) a police officer; or
    - (C) a person authorized under Section 31B-12(a) to enforce this Chapter;
    - (D) a person authorized by a municipality to enforce this Chapter; or
  - (2) for a noise originating from an animal source, the Director of the Animal Services Division in the Police Department or the Director's authorized designee.
- (h) *Impulsive noise* means short bursts of a acoustical energy, measured at a receiving property line, characterized by a rapid rise to a maximum pressure followed by a somewhat slower decay, having a duration not greater than one second and a field crest factor of 10 dBA or more. Impulsive noise may include, for example, noise from weapons fire, pile drivers, or punch presses.
- (i) *Leaf blower* means any portable device designed or intended to blow, vacuum, or move leaves or any other type of unattached debris or material by generating a concentrated stream of air. Leafblower includes devices or machines that accept vacuum attachments.
- (j) *Nighttime* means the hours from 9 p.m. to 7 a.m. weekdays and 9 p.m. to 9 a.m. weekends and holidays.
- (k) *Noise* means sound, created or controlled by human activity, from one or more sources, heard by an individual.
- (l) *Noise area* means a residential or non-residential noise area:
- (1) *Residential noise area* means land in a zone established under Section 59-C-1.1, Section 59-C-2.1, Division 59-C-3, Section 59-C-6.1, Section 59-C-7.0, Section 59-C-8.1, Section 59-C-9.1 for which the owner has not transferred the development rights, or Section 59-C-10.1, or land within similar zones established in the future or by a political subdivision where Chapter 59 does not apply.
  - (2) *Non-residential noise area* means land within a zone established under Section 59-C-4.1, Section 59-C-5.1, Section 59-C-9.1 for which the owner has transferred the development rights, or Division 59-C-12, or land in similar zones established in the future or by a political subdivision where Chapter 59 does not apply.
- (m) *Noise disturbance* means any noise that is:
- (1) unpleasant, annoying, offensive, loud, or obnoxious;
  - (2) unusual for the time of day or location where it is produced or heard; or
  - (3) detrimental to the health, comfort, or safety of any individual or to the reasonable enjoyment of property or the lawful conduct of business because of the loudness, duration, or character of the noise.
- (n) *Noise sensitive area* means land designated by the County Executive as a noise sensitive area under Section 31B-8.

- (o) *Noise-suppression plan* means a written plan to use the most effective noise-suppression equipment, materials, and methods appropriate and reasonably available for a particular type of construction.
- (p) *Person* means an individual, group of individuals, corporation, firm, partnership, or voluntary association; or a department, bureau, agency, or instrument of the County or any municipality, or of any other government to the extent allowed by law.
- (q) *Prominent discrete tone* means a sound, often perceived as a whine or hum, that can be heard distinctly as a single pitch or a set of pitches. A prominent discrete tone exists if the one-third octave band sound pressure level in the band with the tone exceeds the arithmetic average of the sound pressure levels of the 2 contiguous one-third octave bands by:
  - (1) 5 dB for center frequencies of 500 Hz and above;
  - (2) 8 dB for center frequencies between 160 and 400 Hz; or
  - (3) 15 dB for center frequencies less than or equal to 125 Hz.
- (r) *Qualifying performing arts facility* means the outdoor area of a building, outdoor seasonal, temporary, or permanent stage, or other clearly defined outdoor area or space, which is:
  - (1) used for an outdoor arts and entertainment activity; and
  - (2) owned or operated by the County; and
  - (3) so designated by the County Executive in an Executive Order published in the County Register. The Executive may revoke a designation at any time by publishing an Executive Order revoking the designation in the County Register.
- (s) *Receiving property* means any real property where people live or work and where noise is heard, including an apartment, condominium unit, or cooperative building unit.
- (t) *Sound* means an auditory sensation evoked by the oscillation of air pressure.
- (u) *Source* means any person, installation, device, or animal causing or contributing to noise. (1996 L.M.C., ch. 32, § 1; 2001 L.M.C., ch. 2, § 1.)

**Editor's note**—See County Attorney Opinion dated 10/6/00 indicating that long-term parking on public streets is prohibited in certain circumstances, but not based on the size of the vehicle. See County Attorney Opinion dated 3/16/92 explaining that the Washington Metropolitan Area Transportation Authority (esp. Metrorail) is subject to the County's noise control law, although an exemption may be obtained if it is in the public interest.

### **Sec. 31B-3. Regulations.**

The County Executive may establish noise control regulations and standards as necessary to accomplish the purposes and intent of this Chapter. Any regulation must be at least as stringent as this Chapter. The Executive by regulation may set fees that are sufficient to offset the costs of Department reviews or other actions required or authorized by this Chapter. (1996 L.M.C., ch. 32, § 1.)

### **Sec. 31B-4. Noise control advisory board.**

- (a) A Noise Control Advisory Board must advise the County Executive, Director, County Council, and Planning Board on noise control issues, including administration and enforcement of this Chapter.
- (b) The Board consists of 11 members appointed by the Executive and confirmed by the Council.
- (c) The Board must elect one member as Chair and another member as Vice-Chair to serve at the pleasure of the Board. The Board must meet at the call of the chairperson as required to perform its duties, but not less than once each quarter. A majority of the members of the

Board constitutes a quorum for transacting business. The Board may act by a majority vote of those present.

- (d) At least every third year, the Board must evaluate the effectiveness of the County's noise control program and recommend any improvements to the Director, County Executive, County Council, and Planning Board.
- (e) No later than March 1 each year, the Chair of the Board must report to the Director, County Executive, County Council, and Planning Board on activities and actions the Noise Control Advisory Board took during the previous calendar year. (1996 L.M.C., ch. 32, § 1; 1999 L.M.C., ch. 2, § 1.)

**Editor's note**-1999 L.M.C., ch. 2, § 1, increased the number of Board members from 7 to 11. 1999 L.M.C., ch. 2, § 2, states:

Sec. 2. Transition.

- (a) The terms of the 4 members of the Noise Control Advisory Board added by this Act end:
  - (1) for 1 member, on September 30, 1999, and every third year thereafter;
  - (2) for 2 members, on September 30, 2000, and every third year thereafter; and
  - (3) for 1 member, on September 30, 2001, and every third year thereafter.
- (b) When appointing the first individual to serve in one of the 4 new positions, the County Executive must designate the term in subsection (a) for which the Executive is appointing the individual.
- (c) This Act does not affect the term of any current member of the Board.  
**Cross reference**-Boards and commissions generally, § 2-141 et seq.

### Sec. 31B-5. Noise level and noise disturbance violations.

- (a) *Maximum allowable noise levels.*
  - (1) Except as otherwise provided in Sections 31B-6(a) and 31B-8, a person must not cause or permit noise levels that exceed the following levels:

<i>Maximum Allowable Noise Levels (dBA) for Receiving Noise Areas</i>		
	<i>Daytime</i>	<i>Nighttime</i>
Non-residential noise area	67	62
Residential noise area	65	55

- (2) A person must not cause or permit the emission of a prominent discrete tone or impulsive noise that exceeds a level, at the location on a receiving property where noise from the source is greatest, that is 5 dBA lower than the level set in paragraph (1) for the applicable noise area and time.
  - (3) Sound that crosses between residential and non-residential noise areas must not exceed the levels set in paragraph (1) for residential noise areas.
- (b) *Noise disturbance.* A person must not cause or permit noise that creates a noise disturbance.
- (c) *Examples.* The following examples illustrate common noise-producing acts that violate this section if they exceed the noise level standards set in subsection (a) or create a noise

disturbance. The examples are illustrative only and do not limit or expand the noise level or noise disturbance standards of this section:

- (1) Sounding a horn or other signaling device on any motor vehicle on private property except:
  - (A) in an emergency; or
  - (B) as a danger warning signal during daytime hours if the device complies with noise level limits.
- (2) Operating a sound-producing device on public streets for commercial advertising or to attract public attention.
- (3) Selling anything by outcry.
- (4) Loading, unloading, opening, closing or otherwise handling containers, building materials, construction equipment, or similar objects.
- (5) Operating a device that produces, reproduces, or amplifies sound.
- (6) Allowing an animal to create a noise disturbance.
- (7) Operating power equipment mounted on a motor vehicle or operating other devices powered by a generator or a motor vehicle. (1996 L.M.C., ch. 32, § 1.)

**Editor's note**—See County Attorney Opinion dated 10/6/00 indicating that long-term parking on public streets is prohibited in certain circumstances, but not based on the size of the vehicle. See County Attorney Opinion dated 3/16/92 explaining that the Washington Metropolitan Area Transportation Authority (esp. Metrorail) is subject to the County's noise control law, although an exemption may be obtained if it is in the public interest.

#### **Sec. 31B-6. Noise level and noise disturbance standards for construction.**

- (a) *Maximum allowable noise levels for construction.*
  - (1) A person must not cause or permit noise levels from construction activity that exceed the following levels:
    - (A) From 7 a.m. to 5 p.m. weekdays:
      - (i) 75 dBA if the Department has not approved a noise-suppression plan for the activity; or
      - (ii) 85 dBA if the Department has approved a noise-suppression plan for the activity.
    - (B) The level specified in Section 31B-5 at all other times.
  - (2) Construction noise levels must be measured at the location, at least 50 feet from the source, on a receiving property where noise from the source is greatest.
  - (3) The Department must by regulation establish requirements for noise-suppression plans and adopt procedures for evaluating and approving plans. The regulations must provide that, at least 10 days before approving a noise-suppression plan, the Director must provide public notice reasonably calculated to reach at least a majority of households that might be affected by the construction activity noise levels above 75 dBA.
- (b) *Construction noise disturbance.* The prohibition on noise disturbance in Section 31B- 5(b) applies to construction activities, notwithstanding subsection (a).
- (c) *Examples.* The following examples illustrate common construction noise-producing acts that violate this section if they exceed the noise level standards set in subsection (a) or create a noise disturbance. The examples are illustrative only and do not limit or expand the construction noise level or noise disturbance standards of this section:
  - (1) Delivering materials or equipment, or loading or unloading during nighttime hours in a residential noise area.
  - (2) Operating construction equipment with audible back-up warning devices during nighttime hours. (1996 L.M.C., ch. 32, § 1.)

**Sec. 31B-6A. Seasonal noise level standard for qualifying outdoor arts and entertainment activities.**

- (a) Each outdoor arts and entertainment activity held at a qualifying performing arts facility must not exceed the following noise decibel limits:
  - (1) from 11 a.m. to 11 p.m. during April 1 through October 31, 75 dBA, as measured on the receiving property; and
  - (2) at all other times, the maximum allowable noise level set in Section 31B-5.
- (b) A qualifying performing arts facility which has complied with this Section must not cause or permit noise levels from an outdoor arts and entertainment activity to exceed the standards in subsection (a).
- (c) Any outdoor arts and entertainment activity conducted at a qualifying performing arts facility which has complied with this Section must not be cited as causing a noise disturbance.
- (d) The Department must annually advise the Executive and Council, and the operator of each qualifying performing arts facility, whether the noise levels specified in this Section remain appropriate for that facility and the extent of compliance with those levels. (2011 L.M.C., ch. 7, § 1)

**Sec. 31B-7. Measurement of sound.**

- (a) The Department must issue regulations establishing the equipment and techniques it will use to measure sound levels. The Department may rely on currently accepted standards of recognized organizations, including the American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), and the United States Environmental Protection Agency.
- (b) For multiple sources of sound, the Department may measure sound levels at any point to determine the source of a noise. (1996 L.M.C., ch. 32, § 1.)

**Sec. 31B-8. Noise sensitive areas.**

- (a) The County Executive may designate by regulation land within any geographical area as a noise sensitive area to protect public health, safety, and welfare. The regulation may prohibit certain noise producing activities in the noise sensitive area.
- (b) A regulation under subsection (a) must:
  - (1) describe the area by reference to named streets or other geographic features;
  - (2) explain the reasons for the designation;
  - (3) establish specific noise limits or requirements that apply in the noise sensitive area; and
  - (4) describe by example or enumeration activities or sources that violate the limits or requirements.
- (c) A regulation under subsection (a) may establish limits or requirements for a noise sensitive area that are more stringent than those that otherwise would apply to the area under this Chapter. (1996 L.M.C., ch. 32, § 1.)

**Sec. 31B-9. Leafblowers.**

- (a) Except as provided in this section, a person must not sell, buy, offer for sale, or use a leafblower at any time that has an average sound level exceeding 70 dBA at a distance of 50

- feet. This requirement is in addition to any other noise level or noise disturbance standard that applies under this Chapter.
- (b) An individual who owns or occupies a residence in a residential noise area may use at the individual's residence a leafblower bought or manufactured before July 1, 1990, until July 1, 1998, even if it exceeds the standard in subsection (a). After July 1, 1998, a person must not use any leafblower that violates the standard in subsection (a).
  - (c) The Department must apply the standard in subsection (a) in accordance with the most current leaf-blower testing standard of the American National Standards Institute (ANSI).
  - (d) The Department may inspect, and on its request a person must produce, any leafblower that is sold, offered for sale, or used in the County, to determine whether the leafblower complies with this section. A person who relies in good faith on a manufacturer's written representation of the sound level of a leafblower that has not been modified is not subject to a penalty for violating this section. (1996 L.M.C., ch. 32, § 1.)

#### **Sec. 31B-10. Exemptions.**

- (a) This Chapter does not apply to:
  - (1) agricultural field machinery used and maintained in accordance with the manufacturer's specifications;
  - (2) emergency operations by fire and rescue services, police agencies, or public utilities and their contractors;
  - (3) a source or condition expressly subject to any State or federal noise-control law or regulation that is more stringent than this Chapter;
  - (4) sound, not electronically amplified, created between 7 a.m. and 11 p.m. by sports, amusements, or entertainment events or other public gatherings operating according to the requirements of the appropriate permit or licensing authority. This includes athletic contests, carnivals, fairgrounds, parades, band and orchestra activities, and public celebrations.
- (b) The County Executive may issue regulations exempting from Section 31B-5 sources associated with routine residential living during daytime hours, such as home workshops, power tools, and power lawn and garden equipment, when used in accordance with manufacturer specifications. This exception does not apply to repairs or maintenance on a motor vehicle that is not registered for use on public roads. (1996 L.M.C., ch. 32, § 1.)

#### **Sec. 31B-11. Waivers.**

- (a) *Temporary waiver.*
  - (1) The Director may waive any part of this Chapter for a temporary event if the noise the event will create or cause in excess of the limits established under this Chapter is offset by the benefits of the event to the public.
  - (2) When the Director receives an application under this subsection, the Director must provide public notice of the application reasonably calculated to reach at least a majority of households that might be affected by noise levels anticipated for the event. The Director must not approve an application under this subsection less than 10 days after the public notice.
- (b) *General waiver.*
  - (1) The Director may waive any part of this Chapter if the Director determines that compliance in a particular case is not practical and would impose undue hardship.
  - (2) When the Director receives an application under this subsection, the Director must schedule a hearing on the application within 60 days.
  - (3) At least 30 days before the hearing, the applicant must advertise the hearing by:

- (A) placing a display advertisement in a newspaper of general circulation in the community where the source that is the subject of the application is located; and
  - (B) posting a sign at the location of the source.
  - (4) Based on evidence presented at the hearing, the Director may grant a waiver for up to 3 years, under terms and conditions appropriate to reduce the impact of the exception.
  - (5) The Director may renew a waiver granted under this subsection if the applicant shows that the circumstances supporting the original waiver have not changed.
- (c) *Violation of waiver.* The Director may suspend, modify, or revoke a waiver granted under this section if a person violates the terms or conditions of the waiver.
- (d) *Regulations and fees.* The County Executive must issue regulations implementing this section that:
- (1) set the procedures and fees to apply for a waiver under subsections (a) or (b);
  - (2) require the applicant to use the best technology and strategy reasonably available to mitigate noise, as determined by the Director;
  - (3) allow temporary waivers under subsection (a) of no more than 30 days, renewable at the discretion of the Director no more than twice; and
  - (4) specify the requirements for the hearing advertisement and sign required under subsection (b)(3). (1996 L.M.C., ch. 32, § 1.)

#### **Sec. 31B-12. Enforcement and penalties.**

- (a) The Department must enforce this Chapter. The County Executive may delegate in writing the authority to enforce parts of this Chapter to the Police Department or any other Executive agency.
- (b) A violation of this Chapter is a Class A violation. Each day a violation continues is a separate offense. A violation of Section 31B-6 is a separate offense in addition to any other violation of this Chapter arising from the same act or occurrence.
- (c) The Department may seek injunctive or other appropriate judicial relief to stop or prevent continuing violations of this Chapter.
- (d) If the Director finds that a person has violated this Chapter, the Director may issue a notice of violation and corrective order to the person. The notice must contain the following information:
  - (1) the section of this Chapter that the person violated;
  - (2) the date, nature, and extent of the violation;
  - (3) the action required to correct the violation;
  - (4) if the Director requires a compliance plan, the deadline for submitting the plan to the Director; and
  - (5) the deadline for compliance.
- (e) The compliance plan referred to in subsection (d)(4) must establish a schedule for achieving compliance with this Chapter, as specified in the corrective order. A compliance plan, and amendments to a plan, are not effective until the Director approves the plan or amendment. An action allowed under an approved compliance plan does not violate this Chapter.
- (f) An enforcement officer may issue a civil citation for any violation of this Chapter if the enforcement officer:
  - (1) witnesses the violation; or

- (2) receives complaints from at least 2 witnesses of a noise disturbance. Complaints by 2 witnesses are required to issue a citation under paragraph (2), but are not required to prove that a person violated this Chapter.
- (g) The Director of the Animal Services Division may initiate administrative action before the Animal Matters Hearing Board instead of an enforcement officer issuing a citation under subsection (f) for a violation of this Chapter originating from an animal source.
- (h) A person aggrieved by any action or order of the Director under Sections 31B-9 and 31B-11 may seek reconsideration within 10 days after the date of the action or order. A request for reconsideration must be in writing to the Director, and must specify the date and nature of the action or order, the injury sustained, the remedy requested, and the legal basis for the remedy. If the Director finds that there are material facts in dispute, the Director may refer the matter to a hearing officer under the procedures specified in Chapter 2A. If the Director finds that there are no material facts in dispute, the Director must make a final decision on the request for reconsideration in writing within 45 days after receiving the request. The aggrieved person may appeal from the Director's final decision within 30 days after the Director issues the decision, as provided in Section 2A-11.
- (i) (1) A person responsible for a violation of Section 31B-6 and the person responsible for the management or supervision of the construction site where the source of the violation is located are jointly and severally liable for the violation.  
 (2) For recurring violations of Section 31B-6 on the same construction site, in addition to any other penalty under this Chapter, the Director may issue a stop work order, as provided in Section 8-20, for up to:  
 (A) 3 consecutive working days for a second violation within 30 days after the first violation;  
 (B) 5 consecutive working days for a third violation within 60 days after the first violation; and  
 (C) 7 working days per offense for the fourth and subsequent violations within a 120-day period.  
 (3) This Chapter does not limit the Director's authority under Chapter 8 to revoke a permit or approval issued under that Chapter.
- (j) Any person aggrieved by a violation of this Chapter may file a civil action in any court with jurisdiction against a person responsible for the alleged violation. The aggrieved person must notify the alleged violator and the Director of the alleged violation at least 60 days before filing the action. A person must not file an action under this subsection if the County Attorney has filed a civil action against the same alleged violator regarding the same violation. (1996 L.M.C., ch. 32, § 1; 2001 L.M.C., ch. 2, § 1.)

#### Endnotes

Editor's note—In *Burrows v. United States*, 2004 U.S. Dist. LEXIS 1104 (2004), the Court interpreted Montgomery County Code Chapter 31B neither to permit a private cause of action for noise control, nor to permit suit against the federal government. Chapter 31B is discussed in *Miller v. Maloney Concrete Company*, 63 Md.App. 38, 491 A.2d 1218 (1985). \*Cross references-Noise from quarries, § 38-14; radio, etc., without earphones prohibited in public transit facilities, § 54A-2; industrial area noise regulations, § 59-A-5.7.

[Note]

## Appendix G

STANDARD SPECIFICATIONS  
SECTION 02511  
CHLORINATION AND DECHLORINATION

## Revision Log

*All changes made to this Section since the July 2021 Major Revision are included in this log and are highlighted in the text.*

<b>Revision Date</b>	<b>Part</b>	<b>Change Made</b>
7-16-21	1.1.B and 1.1.C	Added new clarification under description for purpose of this specification
7-16-21	1.2.A	Added statement that Commission will perform testing for all potable water.
7-16-21	1.2.B	Added requirements for Contractor to provide samples to WSSC Water for testing
7-16-21	1.2.C and 1.2.C.1	Added section for requirements for Contractors before delivery and, specifically a new requirement for Water Pollution Prevention Plan (PPP) training.
7-16-21	1.3.A.3. and 1.3.A.4	Revised 1.3.A to Qualifications and Methodology. Added new specifications under 1.3.A.3 and 4.
7-16-21	1.3.B, 1.3.B.1, 1.3.B.2 and 1.3.B.3	Added section for submittal of all tests and forms.
7-16-21	3.1.B	Added Visual Inspection Form as requirement provided by the Commission.
7-16-21	3.2.A	Updated the original statement.
7-16-21	3.2.B.2	Added requirements for completing visual inspection form provided by the Commission.
7-16-21	3.2.C	Deleted reference to section 4.4.2.1 in AWWA C651.
7-16-21	3.3.A and 3.3.B	Updated and re-numbered the sections to included additional requirements.
7-16-21	3.5.A.1 and 3.5.A.1.c.1) and 3.5.A.2.b	Updated and re-numbers the sections to accommodate new requirements. Included link for General Discharge Permit.
7-16-21	3.5.B.2	Revised section for Dechlorination or storage of chlorinated water before discharge and re-numbers following sections.
7-16-21	3.5.C.2.a	Deleted
7-16-21	3.6.B	Added new requirement for Discharging Potable Water.

## PART 1 GENERAL

## 1.1 DESCRIPTION

- A. Section includes requirements for chlorination and dechlorination procedures for water mains.
- B. For purposes of this specification, water that has been super chlorinated is considered "wastewater" and all activities associated with the treatment prior to placing the main in service with potable water is also considered wastewater.
- C. For purposes of this specification, water discharged into the environment means the discharging of any water to a place other than a sanitary sewer. The environment includes, but is not limited to, storm drains, drainage swales, and/or state waterways.

## 1.2 QUALITY ASSURANCE

- A. Commission employees will collect bacteriological samples and Commission laboratories will perform bacteriological testing for all potable water.
- B. Contractor shall collect samples and conduct tests for all treated super chlorinated wastewater or other wastewater discharges to the environment to ensure all discharges made by the contractor are in compliance with all permits, regulations, and laws.
- C. Requirements for Contractors before delivery.
  - 1. Contractor shall identify a foreman/crew chief and alternate to complete WSSC Water Pollution Prevention Plan training. The training will focus on requirements for reporting discharges when working with WSSC and is not a substitute for other training that may be required by other jurisdictional authorities.

## 1.3 SUBMITTALS

- A. Qualifications and Methodology.
  - 1. Qualifications and experience of personnel under whose supervision chlorination or dechlorination is to be performed when using pressurized liquid chlorine described in AWWA B301 or other pressurized chemicals.
  - 2. Method of Construction to include method of chlorination, type and quantity of chemicals, source of water for disinfection, discharge locations of chlorinated water or, if required, method of treating chlorinated water.
  - 3. Method of testing of treated super chlorinated discharges or other waste water created by the contractor which are discharged into the environment. Methods should include the method of testing, the name and address of any laboratories performing field testing as well as the qualifications and experience of personnel for all personnel collecting samples and performing field testing. Methods must be in compliance with all jurisdictional requirements, including but not limited to the permit requirements of MDE permit 17HT and EPA's - "Guidelines Establishing Test Procedures for the Analysis of Pollutants" (40 CFR 136).
  - 4. Calibration records, maintenance records, and procedures for all monitoring and analytical instrumentation necessary for performing field testing of treated super

chlorinated discharges or other waste water created by the contractor which are discharged into the environment.

B. Test Reports submitted by Contractor.

1. Sampling results at the Commission's discretion, the contractor may be required to enter information into online system as provided by the Commission.
2. Completed Visual Inspection Form (provided by the Commission) as specified within this specification. At the Commission's discretion, the contractor may be required to enter information into online system as provided by the Commission.
3. Original monitoring data from flow measuring devices or other continuous monitoring instrumentation.

## PART 2 PRODUCTS

### 2.1 MATERIALS: Follow Section 02510, AWWA standards, and specified herein.

- A. Dechlorination Tablets: LPD-CHLOR™ Sodium Sulfite, Bio-Max Sodium Sulfite, or VITA-D-CHLOR (ascorbic acid).
- B. Bag: 16 inch (top opening) by 8 inch nylon.
- C. Diffusers:
  1. For flow rates up to 120 gpm: Use 4-inch circular strainer to hold bag with sodium sulfite or ascorbic acid tablets, attach to fire hydrant or fire hose using adapter.
  2. For flow rates from 31 to 1250 gpm: Use Pollard LPD-250 or LPD-250A Diffusing Dechlorinator.
    - a. Low Flow Inserts: For flow rates from 31 to 200 gpm.
- D. Rubber Bands: Heavy duty to fit around nylon bag.
- E. Fire Hose: Standard 2 1/2 inch.
- F. Adapters: To connect 4-inch circular strainer to fire hydrant or fire hose.
- G. End Wall Cap: Threaded for use with standard fire hose.
- H. Protection Equipment: See LPD-CHLOR™ tablet Material Safety Data Sheets (MSDS).
- I. Chlorine Field Test Kit (Hach Colorimeter).

## PART 3 EXECUTION

### 3.1 WORK PERFORMED BY THE COMMISSION

- A. Take bacteriological samples within 3 working days after receipt of written notification from Contractor that chlorination is complete. Results of sample analysis will be available within 3 calendar days after sampling.
- B. Provide Visual Inspection Form

### 3.2 CHLORINATION BY CONTRACTOR

- A. Notify Engineer 3 working days before performing chlorination and dechlorination, or any wastewater sampling.
  - 1. Provide blow off with sample point at end of each branch and end of main line.
  - 2. All valves including fire hydrant lead valves within chlorinated section to be left open during chlorination.
- B. Supply water for disinfection and filling mains from temporary jumper with approved backflow preventer.
  - 1. When no source of water from existing main is available, provide potable water.
  - 2. Pre-flush water source prior to chlorination until water has chlorine residual less than 2.5mg/l and pH is less than 9.2. If flushing water is discharged to the environment, complete a visual inspection form, at least once daily.
- C. Use continuous feed method or tablet method for chlorination following AWWA C651 for disinfecting water mains, except section 4.3.2., and as required herein.
- D. Approved Forms of Chlorine: Liquid chlorine, sodium hypochlorite solution, and calcium hypochlorite granules or tablets following AWWA C651.

### 3.3 CHLORINATION METHODS

- A. Continuous Feed Method.
  - 1. Proportion mixture of chlorine solution and water so that minimum of 25 mg/l free chlorine concentration is placed into main and appurtenances to be chlorinated. See table below for guidelines regarding quantity of chlorine needed for initial feed.
  - 2. Retain concentrated chlorinated water in main for 24 hour period.
  - 3. At end of 24 hour period, treated water shall contain no less than 10 mg/l free chlorine throughout main.
  - 4. Notify Engineer in writing in advance if flushing water will be discharged to the environment 96 hours before the start of the discharge.
  - 5. Flush out main at end of 24 hour period using jumper until water has chlorine residual less than 2.5 mg/l total chlorine and pH less than 9.2.
  - 6. Preliminary flushing of pipe required by AWWA C651 before chlorination is optional if interior is broom swept or in clean condition, as determined by Contractor.

B. Tablet Method.

1. Do not use this method unless interior of pipe, fittings, and valves can be kept clean and dry.
2. Average Chlorine Dose: Approximately 25 mg/l free chlorine.
3. Seal ends of pipelines that contain tablets or granules to prohibit entry.

CONTINUOUS FEED METHOD																
Pipe Diameter (inches)	LENGTH OF PIPE TO BE CHLORINATED															
	100'	200'	300'	400'	500'	600'	700'	800'	900'	1K	2K	3K	4K	5K	6K	7K
1.5	0.025	0.01	0.016	0.02	0.03	0.033	0.038	0.04	0.05	0.06	0.11	0.16	0.22	0.28	0.33	0.38
2	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.20	0.30	0.40	0.50	0.60	0.70
2.5	0.02	0.03	0.05	0.06	0.08	0.09	0.10	0.12	0.13	0.15	0.30	0.45	0.60	0.75	0.90	1.10
3	0.022	0.04	0.06	0.08	0.10	0.13	0.15	0.16	0.20	0.22	0.43	0.60	0.86	1.10	1.30	1.51
4	0.038	0.07	0.12	0.15	0.20	0.23	0.26	0.30	0.35	0.38	0.76	1.15	1.53	1.92	2.30	2.68
6	0.09	0.18	0.26	0.35	0.45	0.53	0.62	0.70	0.80	0.88	1.77	2.70	3.50	4.40	5.30	6.20
8	0.20	0.30	0.50	0.60	0.80	0.90	1.10	1.20	1.40	1.60	3.10	4.70	6.20	7.80	9.30	10.90
10	0.24	0.48	0.70	1.00	1.20	1.50	1.70	2.00	2.20	2.40	4.90	7.30	9.70	12.20	14.60	17.00
12	0.35	0.70	1.10	1.40	1.80	2.10	2.50	2.80	3.20	3.50	7.00	9.00	14.00	17.50	21.00	24.50
16	0.60	1.30	1.90	2.50	3.10	3.70	4.30	5.00	5.60	6.20						
18	0.80	1.60	2.40	3.20	4.00	4.70	5.50	6.30	7.10	7.90						
20	1.00	2.00	2.90	3.90	4.90	5.90	6.80	7.80	8.70	9.70						
24	1.40	2.80	4.20	5.60	7.00	8.40	9.80	11.20	12.60	14.00						

CHART LIST POUNDS OF HTH (70% CHLORINE) TO BE USED TO CHLORINATE GIVEN SIZE PIPE FOR DESIRED PIPE LENGTH.

4. Notify Engineer in writing in advance if flushing water will be discharged to the environment 96 hours before the start of the discharge.
5. Flush out main at end of 24 hour period using jumper until water has chlorine residual less than 2.5 mg/l and pH is less than 9.2.

### 3.4 COMPLETION OF CHLORINATION

- A. Notify Engineer in writing when chlorination is complete and ready to have bacteriological samples taken.
- B. Should residual and bacteriological analyses not be satisfactory to Engineer, rechlorinate main and notify Engineer in writing when rechlorination is complete and ready to have bacteriological sample taken.
- C. Place mains in service when analysis is complete and approved by Engineer.

### 3.5 DISCHARGING CHLORINATED WATER

## A. Methods.

1. Discharge into existing sanitary sewer manholes. This is a preferred option; discharge information and sampling is not required for discharges into sanitary sewers.
  - a. Maintain minimum 1 foot vertical air gap between end of discharge pipe and manhole frame.
  - b. Do not cause surcharge or disrupt sewer service.
  - c. Flow rate into the sanitary sewer may not exceed 0.25 mgd.
    - 1) If flow rate is expected to exceed 0.25 mgd, disposal to sanitary sewer may be possible through coordination with WSSC Water's Water/Wastewater Systems Assessment Division and/or the appropriate Production Department water resource recovery facility.
2. If a sanitary sewer is not available, an on-site tank or detention pond may be used to hold discharge water until chlorine naturally dissipates or can be treated with dechlorination chemicals.
  - a. Maintain 12-inches of freeboard above water level in the on-site tank or detention pond to prevent the on-site tank or detention pond from overflowing due to rainfall.
  - b. Tank or detention pond may not be emptied to the environment until chlorine residual tested within 15 minutes of sample collection from at least 3 representative locations in the tank or pond is non-detectable (<0.10 mg/L) as required by Appendix A (Discharge Category B, Narrative Requirement 2) of the General Discharge Permit, which can be found at <https://mde.maryland.gov/programs/Permits/WaterManagementPermits/Documents/GDP-HT-Documents/17HT/17HT-Final-Permit.pdf>.  
The disinfectant water is still considered to be a wastewater and must be sampled before discharge to the environment, for the substances listed below in section 3.5.B.
3. When sanitary sewers and detention ponds are not available, dechlorinate chlorinated water, or store chlorinated water before discharging as specified below

## B. Dechlorination or storage of chlorinated water before discharge.

1. Chemically dechlorinate water or store water until chlorine residual is non-detectable.
2. The discharge must meet all Maryland Department of the Environment (MDE) requirements as specified in General Discharge Permit number 17-HT, Part III.C and Appendix A, Discharge Category B (link included within this specification).
  - a. Contractor shall collect at least 3 grab samples evenly spaced over course of discharge.
  - b. Perform field tests to analyze samples for chlorine residual and pH.
  - c. Chlorine residual: Non-detectable (<0.10 mg/L) in all samples.
  - d. pH limits: Between 6.0 and 9.0.
  - e. If water is chemically dechlorinated (alternative to dechlorination tablets), dissolved oxygen (DO) must be measured as well in each of the 3 samples.
  - f. DO: 5.0 mg/L or greater for discharges to I, I-P, and II waters and 6.0 mg/L or greater for discharges to III, III-P, IV and IV-P waters.

- g. Measure flow of the discharge (total volume divided by the duration of discharge).
- h. Complete a visual inspection form, at least once daily when discharging to the environment.
- i. Submit monitoring results of all chemical parameters to WSSC within 5 working days of completing the discharge, which the Commission will need for quarterly reporting of monitoring results submitted via NetDMR as specified in General Discharge Permit number 17-HT, Part IV.F.

C. Safety Procedures:

- 1. Commission health and safety programs.

3.6 DISCHARGING POTABLE WATER (0 – 4 milligram per liter [mg/L] Chlorine)

A. Discharge potable water as specified in 3.5 A.

B. When sanitary sewers, tanks, or detention ponds are not available at project site, dechlorinate potable water, store, or discharge specified herein. Contractor to complete a visual inspection form, at least once daily when discharging to the environment.

- 1. Safety Procedures: LPD-CHLOR™ MSDS and the Commission health and safety programs.
- 2. To treat flow rates up to 120 gpm: Use fabricated diffuser of 4-inch strainer and adapter.
  - a. Place 8 tablets in 8 inch by 16 inch (top opening) nylon bag with 4 tablets pushed to each side of bag.
  - b. Fold bag over tablets, twisting in center.
  - c. Secure with rubber bands and position firmly inside fabricated diffuser.
  - d. Estimated time to replenish tablets: 3 days for flows of 1 to 30 gpm and 15 hours for flows of 31 to 120 gpm.
- 3. To treat flow rates from 31 – 1250 gpm: Use Pollard LPD-250 or LPD-250A Diffusing Dechlorinator with low flow insert for flow rates from 31-200 gpm.
  - a. Minimum tablets: 10 for every discharge.
  - b. Carefully stack tablets in column chamber of LPD unit.
  - c. Estimated discharge duration for Pollard diffuser.

Number of Tablets	Estimated Discharge Duration (in hours) that Can Be Treated by the Pollard LPD-250			
	Low flow (1 – 30 gpm)	Medium flow (31 – 150 gpm)	High flow (151 – 300 gpm)	Very High flow (301 – 1250 gpm)
10		8	4	1/2
11		9	4-1/2	1/2
12		10	5	1/2
13		10-1/2	5-1/2	1/2

14	Do not use for flows < 30 gpm	11-1/2	6	1/2
15		12-1/2	6	1/2
16		13	6-1/2	1
17		14	7	1
18		15	7-1/2	1
19		16	8	1
20		16-1/2	8	1

4. Number of tablets used during a given discharge: Dependent on various factors such as flow rate and water temperature.
5. Chlorine residual: Non-detectable (<0.10 mg/L)
6. Before being released into the environment, test treated water to assure complete dechlorination has been achieved. Report sample test results to WSSC within 5 working days.
7. Discharging from fire hydrant:
  - a. Attach fabricated diffuser directly to either 2 1/2 inch side or 4 inch side of fire hydrant using appropriate adapters or attach 2 1/2 inch hose to 2 1/2 inch side of hydrant and to fabricated diffuser using appropriate adapter.
  - b. Pollard LPD-250A Diffusing Dechlorinator: Attach directly to 2 1/2 inch side of hydrant or attach 2 1/2 inch hose to hydrant and diffuser.
  - c. Pollard LPD-250 Diffusing Dechlorinator:
    - 1) Attach to 1 end of 2 1/2 inch hose and attach other end of hose to fire hydrant.
    - 2) Do not attach directly to hydrant.
  - d. Direct flow so discharge does not cause erosion or disrupt traffic.
8. Discharging from blowoff or pump:
  - a. Use standard fire hose and appropriate adapters and position diffuser so discharge does not cause erosion, using filter geotextile or tarp when necessary.
  - b. When discharging from end wall-type blowoffs, replace the standard end wall cap with a modified cap equipped with 2 1/2 inch or 4 inch threaded connection.

### 3.7 CONNECTION BETWEEN EXISTING AND NEW MAINS

- A. Clean and spray or swab new pipe, fittings, and valves with minimum 1 percent solution of chlorine just before installation.

## PART 4 MEASUREMENT AND PAYMENT

- 4.1 Providing for and complying with requirements in this Section will not be measured for payment, but cost will be considered incidental to Contract.
  - A. WSSC will not charge the Contractor for water used in support of work covered in this Specification Section. However, the Contractor is responsible for any equipment needed to transport the water as required by site specific conditions (ex: bypass connections, truck, etc.).

**\*\*WSSC\*\***

## Appendix H

STANDARD SPECIFICATIONS  
SECTION 01330  
SUBMITTAL PROCEDURES

## PART 1 GENERAL

## 1.1 DESCRIPTION

- A. Section includes general requirements and procedures related to preparation and transmittal of Submittals to include Schedules, Contractor's Drawings, Samples, Manuals, Methods of Construction, and Record Drawings to Engineer demonstrating performance of Work.
1. Other requirements for submittals are specified under applicable sections of Standard Specifications and Special Provisions.

## 1.2 SUBMITTAL REQUIREMENTS

- A. General.
1. Submit each under separate cover or transmittal.
  2. Furnish neat, legible, and sufficiently explicit detail to enable proper review for Contract compliance. Illegible submittals shall be considered incomplete or defective and will be returned.
  3. Show complete and detailed fabrication; assembly and installation details; wiring and control diagrams; catalog data; pamphlets; descriptive literature; and performance and test data.
  4. Include calculations or other information sufficient to show comprehensive description of structure, machine, or system provided and its intended manner of use.
    - a. With each submission, furnish Engineer specific written notation and justification of each variation in Contractor's Submittals from requirements of Contract Documents.
    - b. Fabrication, purchase or delivery of materials to the site, and installation of materials or Work performed before approval, or not conforming to approved submittals, shall be at Contractor's risk.
  5. Engineer's review and approval of submittals shall not relieve Contractor from responsibility for fulfillment of terms of Contract, unless Engineer has received specific written notice of each variation and has given specific written approval.
  6. Contractor assumes all risks of error and omission.
  7. Contract Work, Materials, Fabrication, and Installation: Following approved submittals.
  8. Submittals shall be made electronically through the Commission's online construction management tool, currently E-Builder. Hard copies shall be provided only as noted herein. When a hard copy is submitted, a transmittal of those items shall be made through E-Builder noting how the hard copy or sample was submitted to the Engineer.

B. Process and Requirements.

1. Not later than 3 days after preconstruction conference, submit written list of materials and equipment to be purchased, giving name, address, and telephone number of Supplier, Manufacturer, or processor.
  - a. Submit updated material and equipment list when changes are made.
2. Coordinate and schedule submittals with construction schedule and Engineer.
3. With the first submittal, but not later than 30 days after Notice to Proceed, submit a complete submittal schedule, listing as near as practicable and by Specification Section number, submittals required and approximate date submittal will be forwarded.
  - a. Arrange submittals schedule so that related equipment items are submitted concurrently.
  - b. Engineer may require changes to submittal schedule to permit concurrent review of related equipment.
4. To each submittal affix the following signed Certification Statement.
  - a. "Certification Statement: By this submittal, we hereby represent that we have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and pertinent data and we have checked and coordinated each item with other applicable approved drawings and all Contract requirements."
5. Identification.
  - a. Submit identification data, as applicable, contained thereon or permanently adhered thereto:
    - 1) The Commission Contract Number.
    - 2) Project name and location.
    - 3) Submittal Numbers:
      - a) Number sequentially as submitted.
      - b) Resubmittals shall bear original submittal number and be sequentially lettered.
    - 4) Product identification.
    - 5) Drawing title, drawing number, revision number, and date of drawing and revision.
    - 6) Applicable Contract Drawing Numbers and Specification Section and Paragraph Numbers.
    - 7) Subcontractor's, Vendor's and/or Manufacturer's name, address and phone number.
    - 8) Contractor's Certification Statement.
  - b. Identify on exterior, catalog product data or brochures submitted in packages of multiple items. Include page and catalog item numbers for items submitted.
    - 1) Highlight catalog, product data, or brochures containing various products, sizes, and materials to show particular item submitted.
    - 2) Mark items not applicable to Contract "not applicable" or cross out.
    - 3) If one or more items in catalog submittal are not approved, resubmit only unapproved items.
6. Number of Copies: See requirements in Submittals specified herein.

7. Approval Process.
    - a. Follow submittal schedule provided to Engineer. Engineer will return submittal within 30 days.
    - b. Submittals will be returned, marked with one of following classifications:
      - 1) APPROVED: Requires no corrections, no marks.
      - 2) APPROVED AS NOTED: Requires minor corrections. Items may be fabricated as marked without further resubmission. Resubmit 2 corrected copies to the Engineer.
      - 3) REVISE AND RESUBMIT: Requires corrections. No items may be fabricated. Resubmit entire submittal following original submission with corrections noted. Allow 30 days for checking and Engineer's appropriate action.
      - 4) REJECTED: Requires major corrections or is otherwise not following Contract Documents. No items shall be fabricated. Resubmit entire submittal following original submission with corrections noted. Allow 30 days for checking and Engineer's appropriate action.
      - 5) INFORMATION ONLY: Items specified by Contract Documents.
- C. Electronic Submittals: PDF Format, as approved by Engineer.

### 1.3 SUBMITTALS

- A. Schedules. (Excluding Area service connection contracts AC, LC)
  1. Construction Schedule – Bar Chart Form.
    - a. Within 15 days after construction start date in Notice to Proceed, prepare and submit to Engineer for review, feasible and reasonable schedule showing Order of Work and start and finish dates of salient milestones, referencing work by street name. Submit in Microsoft Project 2007 (or later) compatible format by digital delivery (email or CD) and 2 copies of printed format to Contract Manager. Show usage of entire Contract Time and include dates for submittals, approval of samples and submittals, and procurement of materials, plant, and equipment. Using sufficient detail, subdivide Work into activities on Construction Schedule, coordinate with breakdowns for lump sum items herein, to serve as basis for progress payments during construction.
      - 1) For projects affecting greater than approximately 1 mile of water main, the construction schedule shall reflect Sequence of Construction requirements provided in Section 01110 and as modified elsewhere in contract documents. Deviations from these requirements shall be noted in the schedule narrative and are subject to approval by the Engineer.
    - b. Furnish such additional information and data required by Engineer to justify basis of schedule precedent to mutual acceptance. Engineer's review and mutual acceptance of Contractor's schedule is for conformance to requirements of the Contract Document. Review and mutual acceptance by Engineer of Contractor's schedule does not relieve Contractor of any of its Contract Document responsibilities for accuracy or feasibility of schedule, or of

- Contractor's responsibility to meet interim project milestone dates and Contract completion date.
- c. Submit with each request for payment, in same format specified above, actual performance against scheduled performance on the mutually accepted construction schedule, including work added by change order. If Contractor fails to submit required updated schedule within time prescribed, Engineer may withhold approval of progress payment estimates until Contractor submits required current updated schedule.
  - d. Use mutually accepted schedule for planning, organizing, directing, and executing Work and for reporting progress. Engineer may order and authorize minor changes to this schedule whenever they are of definite advantage to or necessary for operations of the Commission.
2. Construction Schedule - Critical Path Method.
- a. When required, substitute CPM Construction Schedule that is feasible and reasonable, instead of chart form.
  - b. Within 15 days after construction start date in Notice to Proceed, prepare and submit a preliminary schedule in time-scale format, indicating planned operations during first 60 days. Include cost of activities expected to be completed or partially completed before submission and mutual acceptance of entire schedule.
  - c. Within 45 days after construction start date in Notice to Proceed, submit 5 copies of a complete network analysis system, showing usage of entire Contract Time, consisting of detailed network, mathematical analysis, and network diagram. Present schedule in the form of an Arrow Diagramming Method (ADM) CPM Network Diagram.
    - 1) Show order and interdependence of activities and sequence in which Work will be accomplished. Show how the start of a given activity is dependent on completion of preceding activities and how its completion restricts start of following activities.
    - 2) Show following detailed network activities on network diagram, in addition to construction activities;
      - a) Submittal and approval of samples and submittals.
      - b) Procurement of critical materials and equipment.
      - c) Fabrication of materials and equipment, their installation and testing.
      - d) Specified intermediate milestone or completion dates.
      - e) Show duration of each activity in working days, with minimum of 1 working day and maximum of 20 working days for any on site activity. Material and equipment related delivery activities are exempt from the maximum duration requirement.
    - 3) Group related activities on network and highlight activities on critical path. Time-scale network using units of approximately 1/2 inch equals 1 week or other suitable scale approved by Engineer. Indicate weekends and holidays. Where slack exists, show activities at earliest time they are scheduled to be accomplished. Use sheet size 22 inch by 34 inch minimum, or per Engineer's approval. Place title and revision block in lower right-hand corner. Give dummies duration of zero.

- 4) Include tabulation of each activity shown on detailed network diagram in the mathematical analysis. Furnish following information as minimum for each activity:
    - a) Activity node numbers (I/J).
    - b) Activity description.
    - c) Duration of activity in units of working days.
    - d) Earliest start date (by calendar date).
    - e) Earliest finish date (by calendar date).
    - f) Scheduled or actual start date (by calendar date).
    - g) Scheduled or actual finish date (by calendar date).
    - h) Latest start date (by calendar date).
    - i) Latest finish date (by calendar date).
    - j) Slack or Float (working days).
    - k) Activity percent complete and remaining duration.
    - l) Monetary value of activity.
    - m) Responsibility code for each activity (Prime Contractor, subcontractors, suppliers, the Commission).
    - n) Manpower required by trade and by total.
    - o) Equipment required.
  - 5) List activities in sorts or groups in mathematical analysis:
    - a) Ascending activity node number (I/J).
    - b) Amount of total float, then in order of activity number.
    - c) Latest start date, then in order of activity number.
    - d) Responsibility in order of earliest start date.
  - 6) To facilitate review of payment requests, submit separate sort consisting of activities to which monetary values are assigned. Organize by node number from lowest to highest and then in order of following node number. As minimum for each monetary activity furnish:
    - a) Activity node numbers (I/J).
    - b) Activity description.
    - c) Monetary value of activity.
    - d) Previous amount.
    - e) Current amount.
  - 7) Furnish initial submittal and revisions in 3 copies.
- d. Review of system:
- 1) Participate in Engineer's review and evaluation of proposed network diagrams and analysis. Resubmit revisions necessary as a result of this review to Engineer within 10 days after conference. Allow 20 days for Engineer's checking and further action.
  - 2) Progress payments will be withheld pending attainment of mutually acceptable schedule. Engineer's review and mutual acceptance of Contractor's schedule is for conformance to requirements of the Contract Document. Review and mutual acceptance by Engineer of Contractor's schedule does not relieve Contractor of any of its Contract Document responsibilities for accuracy or feasibility of schedule, or of Contractor's ability to meet interim project milestone dates and Contract completion

- date, nor does such review and mutual acceptance expressly or impliedly warrant, acknowledge or admit the reasonableness of the logic, durations, manpower, or equipment loading of Contractor's schedule.
- 3) Contractor shall use mutually accepted schedule for planning, organizing, directing, and executing Work and for reporting progress.
  - 4) To make subsequent changes to method of operating and scheduling, submit written request separately to Engineer for review, stating reasons for change(s). For major changes, Engineer may require Contractor to revise and submit, without additional cost to the Commission, all affected portions of network diagram and mathematical analysis to show effect on entire project. Change may be considered major if time estimated or actually used for an activity or logic of sequence of activities is so varied from original plan that there is reasonable doubt about effect on Contract completion date or dates. Changes affecting activities with adequate slack time shall be considered minor, except that accumulation of minor changes may be considered major when their cumulative effect might affect Contract completion date. Incorporate mutually accepted changes into next monthly update.
- e. Submit at 30-day intervals, a report of actual construction progress by updating mathematical analysis sorts and graphically generating and reproducing a copy of current network diagram. Include issued change orders in updated schedule. Revise network diagram as described above and as necessary for clarity.
  - f. Show activities or portions of activities completed during reporting period and their total value as basis for Contractor's periodic request for payment. Coordinate these activities or portions of activities with breakdown for lump sum items herein. State percentage of Work actually completed and scheduled as of report date and progress along critical path in terms of days ahead or behind mutually accepted schedule dates.
    - 1) If project is behind schedule, report progress along other paths with negative slack. Engineer will review percentage of work actually completed following procedures set forth in General Conditions Article 22.
    - 2) If Contractor fails to submit required monthly reports and updates within time prescribed, Engineer may withhold approval of progress payment estimates until Contractor submits acceptable required reports and updates. Submit 3 copies of report for each update.
  - g. Simultaneously submit a narrative report with updated analysis, which shall include but not be limited to description of problem areas, current and anticipated delaying factors, their impact, and an explanation of corrective actions taken or proposed.
  - h. Float or slack is defined as difference in working days between earliest start date and latest start date, or difference between earliest finish date and latest finish date of any activity of mathematical analysis of 2., c., 4) herein. Float or slack is not for exclusive use of Contractor or the Commission.
  - i. Requests for Contract Time extension:
    - 1) Accompanied by revised schedule, or portion thereof, and mathematical analysis.

- 2) Based on affect of controlling delays to the Work as a whole.
3. Schedule of Breakdown for Each or Lump Sum Items:
  - a. Before first application for payment, submit to Engineer schedule of breakdown for lump sum items, aggregating total amount bid for each. Include with each breakdown its proper share of overhead, profit, and applied General Conditions. Subdivide Work into activities on Construction Schedule in sufficient detail. Coordinate with breakdowns submitted herein, to serve as basis for progress payments during construction.
  - b. Prepare schedule of breakdown in form acceptable to Engineer and furnish with data to substantiate its correctness as Engineer may require.

#### B. Shop Drawings.

1. For original submittal and each subsequent re-submittal required, submit electronic versions via the Commission's web based construction management tool (currently E-Builder). Submit 3 hard copies of shop drawings with pages larger than 11"x17" or that exceed 50 pages in length unless otherwise approved by the Engineer.
2. Show types, sizes, accessories, and layouts, including plans, elevations, and sectional views; component, assembly, and installation details; and all other information required to illustrate how applicable portions of Contract requirements will be fabricated and/or installed.
3. In case of fixed mechanical and electrical equipment, submit layout drawings drawn to scale, to show required clearances for operation, maintenance, and replacement of parts. Include manufacturer's certified performance curves, catalog cuts, pamphlets, descriptive literature, installation, and application recommendations, as required. Submit together shop drawings for closely related items such as a pump and its motor. Additional shop drawings and information required for electrical and mechanical equipment are listed in appropriate Specification Sections.
4. Shop drawings for continually furnished items such as pipe, fittings, valves, precast structures and metal work will be waived provided Contractor submits a letter naming manufacturer who will furnish these items. Manufacturer shall have on file certified drawing(s) containing above information approved by the Commission, and items furnished shall be as described on certified drawing(s). If Standard Details or Specifications change after certified drawings are approved, new submittals are required.

#### C. Catalog Data.

1. For original submittal and each subsequent resubmittal required, submit electronic versions of catalog data via E-Builder. Submit 3 hard copies of catalog data that contain drawings larger than 11"x17" or that exceed 50 pages in length unless otherwise approved by the Engineer.
2. Manufacturer's Catalog, Product, and Equipment Data: Certified and include material type, performance characteristics, voltage, phase, capacity, and similar data.
  - a. Furnish wiring diagrams when applicable.
  - b. Indicate catalog, model, and serial numbers representing specified equipment.
  - c. Submit complete component information to verify specified required items.

D. Working Drawings.

1. For original submittal and each subsequent resubmittal required, submit electronic versions of all working drawings via E-Builder. Submit 3 hard copies of working drawings that contain drawings larger than 11"x17" or that exceed 50 pages in length unless otherwise approved by the Engineer.
2. Submit working drawings as required for changes, substitutions, Contractor design items, and Contractor designed methods of construction. Requirements for working drawings are listed in appropriate Specification Sections or in Special Provisions.
3. Include with drawings calculations or other information to completely explain structure, machine, or system described and its intended use. Review or approval of drawings by Engineer shall not relieve Contractor from responsibility for fulfillment of terms of Contract. Contractor assumes risks of error, and Engineer shall have no responsibility.
4. Submit working drawings and calculations sealed, dated, and signed by Professional Engineer registered in State of Maryland and experienced in the work or discipline involved.

E. Method of Construction.

1. For original submittal and each subsequent resubmittal required, submit electronic versions of data detailing method of construction via E-Builder.
2. When Engineer specifies or directs, submit proposed method of construction for specific portions of Work.
  - a. Include detailed written description of phases of construction operation to fully explain to Engineer proposed method of construction.
  - b. If required by Specifications, submit working drawings to supplement description.
3. Engineer review will follow the process herein and shall not relieve Contractor from responsibility for fulfillment of terms of Contract. Contractor assumes risks associated with proposed method.
4. After review, submit requests for modifications in detail, including justification for them. Do not implement modifications prior to Engineer's review.

F. Manufacturer's Installation Recommendations.

1. For original submittal and each subsequent resubmittal required, submit electronic version of manufacturer's installation recommendations via E-Builder.
2. Furnish written detail for step by step preparation and installation of the materials and products, including recommended tolerances and space for maintenance and operation.

G. Samples.

1. General: As soon as practicable after Notice to Proceed, submit samples required by Specifications or at Engineer's request. Unless otherwise specified, submit 3 samples of each item as original submittal.
2. Obtain approval before delivery of material to Contract site.

3. Samples: Representative of actual material proposed for use in project and of sufficient size to demonstrate design, color, texture, and finish when these attributes will be exposed to view.
  - a. If samples deviate from Contract Documents, advise Engineer in writing with submittal and state reason.
4. Identification.
  - a. Permanently attach to each sample:
    - 1) The Commission Contract Number.
    - 2) Project Name and Location.
    - 3) Product Identification.
    - 4) Applicable Contract Drawing and Specification Section Number.
    - 5) Subcontractor's, Vendor's and/or Manufacturer's Name, Address and Phone Number.
  - b. Mail under separate cover a letter submitting each shipment of samples containing identification information listed herein. Enclose copy of this letter with shipment.
5. Approval Process.
  - a. Allow 30 days for Engineer's checking and appropriate action. Certain samples may be tested for specified requirements by the Commission before approval. Failure of sample to pass tests will be sufficient cause for refusal to consider further samples of same brand and make of that material.
  - b. Rejected samples will be returned upon request, and resubmittals required shall consist of 3 new samples and an additional 30 days for review. Only 1 test of each sample proposed for use will be made at expense of the Commission. When originally submitted sample fails, retesting of additional samples will be made by the Commission at expense of Contractor. Upon approval, 1 sample so noted will be returned, and remainder will be retained by Engineer until completion of Work.
  - c. Samples of various material or equipment delivered to site or during placement may be taken by Engineer for testing. Samples failing to meet Contract requirements will automatically void previous approvals, and resubmittal of samples will be required.

#### H. Record Drawings (As-builts).

1. Unless otherwise indicated, Engineer will be responsible for preparation and maintenance of record drawings. Coordinate and cooperate with Commission personnel in preparation. Do not permanently seal or bolt manhole covers until after as-built surveys have been made. Assist Commission personnel as required in ascertaining necessary location information.
2. When specified in Contract Documents, maintain 1 record copy of Contract Documents at site in good order and annotated to show revisions made during construction. Keep annotations current for possible monthly inspection.
  - a. Make record drawings available to Engineer at all times during life of Contract. Upon request, the Commission will furnish 1 set of reproducible of original Contract Drawings and sample record drawing, showing required style and quality, for this purpose.

- b. Drawings: Made part of record drawings and to include:
  - 1) Contract Drawings: Annotate or redraft, as required, to show revisions, substitutions, variations, omissions, and discrepancies made or discovered during construction concerning location and depth of utilities, piping, ductbanks, conduits, manholes, pumps, valves, vaults, and other equipment. Make revisions and show on all drawing views with actual dimensions established to permanent points.
  - 2) Working/Layout Drawings: When required as submittals, record actual layouts of conduit runs between various items of electrical equipment for power, control, and instrumentation; wire sizes, numbers, and functions; configuration of conduits; piping layouts; and duct layouts. Add sections and details as required, for clarity. Revise drawings of switchgear, motors, control centers and other equipment to show actual installations.
- c. Before preliminary inspection, furnish reproducible of record drawings. At completion of Contract and before final payment is made, furnish Engineer 1 set of reproducible of finally approved record drawings reflecting revisions herein described. Furnish Engineer record drawing data on disk or CD, in format compatible with the Commission's software.

#### I. Operation and Maintenance Manuals.

- 1. Furnish Operation and Maintenance Manuals for various types of equipment and systems, as required by Contract Documents. Unless otherwise indicated, furnish separate manual for each piece of equipment and system. If manual contains other items or equipment, indicate where specified items are located in manual. Include in manual complete information necessary to operate, maintain, and repair specific equipment and system furnished under this Contract, and include the following specific requirements;
  - a. Contents.
    - 1) Table of Contents and Index.
    - 2) Brief description of equipment/system and principal components.
    - 3) Starting and stopping procedures, both normal and emergency.
    - 4) Installation, maintenance, and overhaul instructions including detailed assembly drawings with parts list and numbers, and recommended spare parts list with recommended quantity, manufacturer's price, supplier's address, and telephone number.
    - 5) Recommended schedule for servicing, including technical data sheets that indicate weights and types of oil, grease, or other lubricants recommended for use and their application procedures.
    - 6) One copy of each component wiring diagram and system wiring diagram showing wire size and identification.
    - 7) One approved copy of each submittal with changes made during construction properly noted, including test certificates, characteristic curves, factory and field test results.
    - 8) For electrical systems, include dimensioned installation drawings, single line diagrams, control diagrams, wiring and connection diagrams, list of material for contactors, relays and controls, outline drawings showing

- relays, meters, controls and indication equipment mounted on equipment or inside cubicles, control and protective schematics, and recommended relay settings.
- b. Material:
    - 1) Covers: Oil, moisture, and wear resistant 9 inches by 11-1/2 inches size.
    - 2) Pages: 60 pound paper 8-1/2 inches by 11 inches size with minimum of 2 punched holes 8-1/2 inches apart reinforced with plastic, cloth, or metal.
    - 3) Fasteners: Metal screw post or Acco metal strap type.
    - 4) Diagrams and Illustrations: Attach foldouts, as required.
    - 5) Legible Original Quality: Reproduced by dry copy method.
2. Copies:
- a. Submit preliminary electronic copies of each manual for review and approval no later than date of shipment of equipment. The electronic version shall be an indexed PDF. Installation shall not begin until manuals are accepted by Engineer. Include in preliminary copies all items required under "Contents" above.
  - b. Unless otherwise specified, provide five (5) hard copies of final approved manuals to the engineer prior to any required testing and submit an indexed PDF version via E-Builder.

J. Substitutions: See Section 01630.

K. Construction Videotape and Photographs Submittal:

1. The Contractor shall provide digital video and photographic records of pre-construction conditions, construction progress and post-construction conditions as follows:
  - a. Before commencing the Work, the Contractor shall provide a video record of the pre-construction conditions of the site, roadways, or property that might be affected by the Contractor's operations both directly and indirectly during the Work. Two copies of the video record of pre-construction conditions shall be submitted prior to the commencement of the Work. All video and photographs shall be taken by a professional photographer, or by an employee of the Contractor who can demonstrate proficiency at professional quality photography.
  - b. Starting when the Work commences and continuing for as long as the Work is in progress, not less than 10 photographs, consisting of different subjects or angles of view each time, shall be taken from different locations in the project area at intervals not exceeding one week apart. All photographs shall be furnished to the Engineer within one week after each exposure.
  - c. The Contractor shall upload photographs to the designated folders in e-Builder. The file name shall include the date and brief description of the photo. Provide additional information on the photo or as a caption associated with the photo that includes but is not limited to the date and the job title, photograph identification, and direction the camera was facing.

- d. Prior to commencing the Work, preconstruction photos shall be taken at the Project site and shall be identified by job title, date, and direction the camera was facing. Four exposures shall be taken at each 100-foot property line interval with one each upstream, downstream, and perpendicular to the property line in both directions. This shall be done to provide a 360-degree view of preconstruction conditions at each interval.
- e. Upon completion of the Work, the Contractor shall provide a digital video record of the post-construction conditions showing the conditions of roadways, ditches, culverts, driveways, buildings, fences, utilities, and other facilities or property which were within 200 yards or were affected by the contractor's operations during the Work. Two copies of the video record post-construction conditions shall be furnished prior to project close-out.

PART 2 PRODUCTS  
NOT USED

PART 3 EXECUTION  
NOT USED

PART 4 MEASUREMENT AND PAYMENT

- 4.1 Providing for and complying with requirements in this Section will not be measured for payment, but cost will be considered incidental to Contract.

**\*\*WSSC\*\***

## Appendix I

STANDARD SPECIFICATIONS  
SECTION 01450  
QUALITY CONTROL

## PART 1 GENERAL

## 1.1 DESCRIPTION

- A. Section includes general requirements relating to responsibility for quality control involving inspections, tests, certificates, and reports.

## 1.2 INSPECTIONS

- A. Engineer will provide 24 hours notice and may inspect materials and equipment at all stages of development or fabrication, and is allowed access to Contractor's and Supplier's shops.
  - 1. Notify Engineer of shift and production schedules and changes by manufacturer.
  - 2. On-site work may be subject to continual inspection.
  - 3. Inspection by Engineer will not release Contractor from responsibility or liability for material or equipment.
- B. When local codes or laws require approval and inspection of Work by other agencies or organizations before installation or operation, give Engineer 3 working days notice of readiness.
  - 1. Obtain required certificates of inspection, testing or approval and submit 1 signed original and 3 copies to Engineer.
- C. Engineer will inspect, before installation, Commission and Contractor furnished materials delivered directly to work sites and mark;
  - 1. Materials without inconsistencies or discrepancies with the Commission's logo.
  - 2. Materials not accepted "Rejected".
  - 3. At plant, Engineer witnessed and inspected Contractor furnished materials with in plant testing following above procedures.
- D. Engineer will not mark or remove previously marked logo on material with noncorrectable damages or deficiencies and deemed not suitable for work.
  - 1. Remove or repair non-accepted and damaged materials at Engineer's direction.

## 1.3 TESTING

- A. Shop or Factory Test: When material or equipment testing is required of manufacturer before shipment to Contract site, give Engineer minimum of 10 days written notice of appropriate time for required test.
  - 1. Ensure test site is safe, accessible, dry, ventilated and well lighted.

2. Do not proceed with installation of equipment until Engineer approves required test results.

B. Field and Laboratory.

1. Provide field and laboratory testing facilities and personnel to perform required testing, including the following periodic inspections, engineering, and associated services.
  - a. Soils.
    - 1) Inspect and test for excavation suitability, placement, and compaction.
    - 2) Inspect subgrades and foundations.
  - b. Masonry.
    - 1) Sample and test mortar, bricks, and grout.
    - 2) Inspect brick and block samples.
    - 3) Sample wall panels.
    - 4) Inspect placement of reinforcement and grouting.
  - c. Concrete: Following Section 03300 to make cylinder samples and perform test on specimen cylinders.
2. Provide 24 hours notice before specified testing.
3. Engage laboratory testing facilities, where specified in Contract Documents, which have performed previous satisfactory work for the Commission, or are certified by the following, and are approved by Engineer before their use.
  - a. NIST National Voluntary Laboratory Accreditation Program (telephone: 301-975-4016).
  - b. Washington Area Council of Engineering Laboratories, Inc. (telephone: 301-652-7925).

C. Equipment: Coordinated and demonstrated following procedures specified in Contract Documents.

D. Pipeline and Other Testing: Following test procedures and requirements specified in appropriate Specification Sections.

#### 1.4 REPORTS

A. Certified Test Reports: Where Contract Documents require transcripts or certified test reports, meet the following requirements.

1. Before delivery of materials: Submit and obtain Engineers approval of required transcripts and certified test reports required in referenced specifications or specified in Contract Documents.
  - a. Testing: Performed in approved independent or manufacturer's laboratory, within 1 year of submittal for approval.
  - b. Transcripts or test reports: Supplied with notarized letter signed by officer or authorized representative of manufacturer or supplier certifying that tested material meets specified requirements and is of specified type, quality, manufacture, and make.
2. Reference to supplier's certification is limited to its fabricated materials.

B. Certificate of Compliance.

1. At Engineer's option or where specified, Contractor may submit for approval, notarized (notarization date to be within 12 months of submittal date) Certificate of Compliance from manufacturer or supplier, instead of specified tests and other tests required in reference documents.
  - a. Manufacturer or supplier has performed all required tests.
  - b. Materials to be supplied meet all test requirements.
  - c. Tests have been performed within 1 year of Certificate submittal.
  - d. Tested materials are of same type, quality, manufacture, and make as those specified in Contract Documents.
  - e. Identification of materials tested.
2. Certificate signed by officer or authorized representative of manufacturer or supplier.
  - a. Reference to supplier's certification is limited to its fabricated materials.
  - b. Do not deliver materials until receipt of Certificate approval.

C. Manufacturer's Certificates: Submitted for installation of items of equipment when required in the Contract Documents.

1. It has been installed under either continuous or periodic supervision of manufacturer's authorized representative.
2. It has been adjusted and initially operated in presence of manufacturer's authorized representative
3. It is operating following specified requirements.

D. Materials List Furnished by Commission:

1. Submit completed Materials List for items to be used.

## 1.5 MANUFACTURER SERVICES

- A. Manufacturer services, when required, are specified in appropriate Specification Sections.

## PART 2 PRODUCTS

NOT USED

## PART 3 EXECUTION

NOT USED

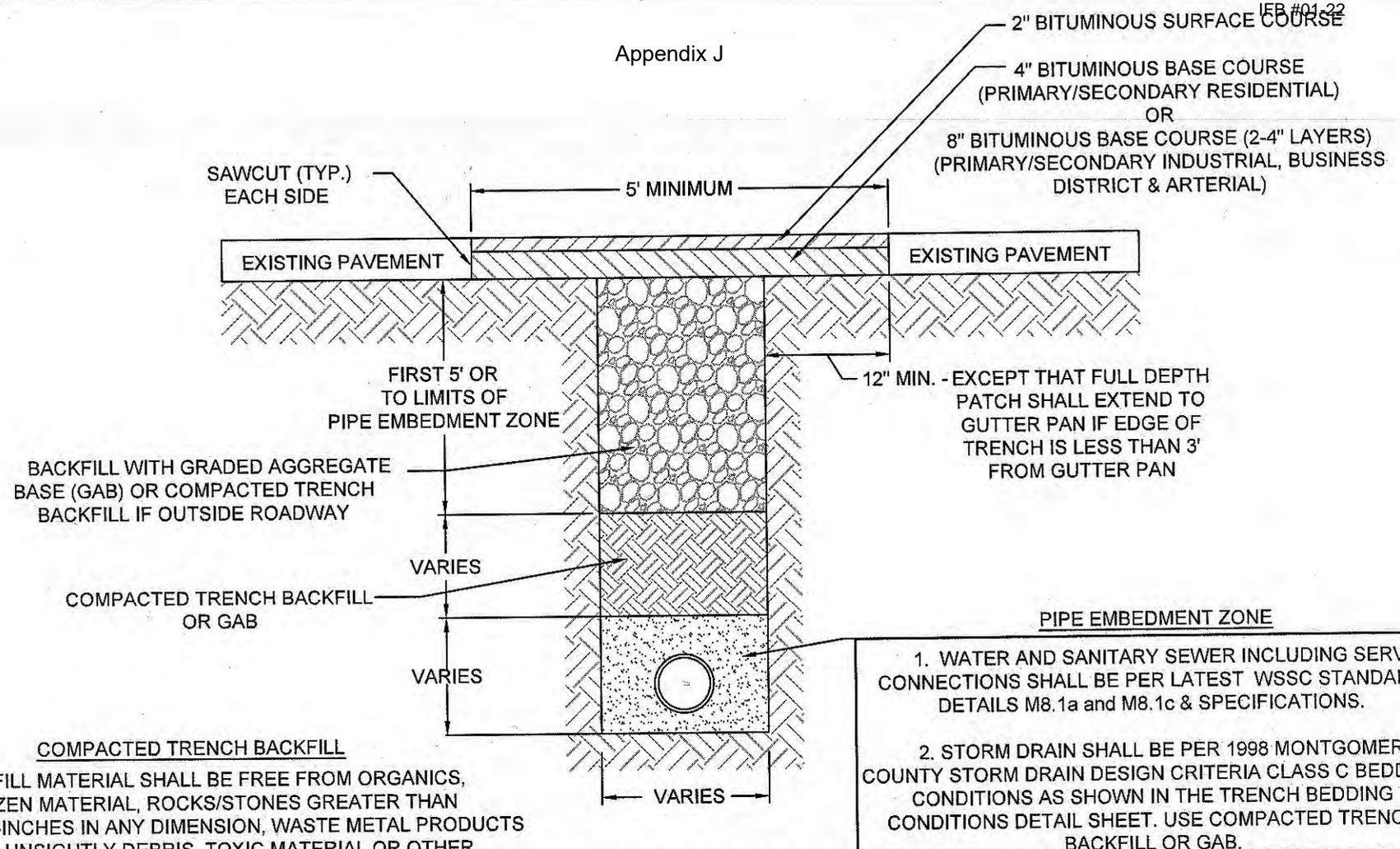
## PART 4 MEASUREMENT AND PAYMENT

- 4.1 Providing for and complying with requirements in this Section will not be measured for payment, but cost will be considered incidental to Contract.

**\*\*WSSC\*\***

Appendix J

FB #0122



- PIPE EMBEDMENT ZONE**
1. WATER AND SANITARY SEWER INCLUDING SERVICE CONNECTIONS SHALL BE PER LATEST WSSC STANDARD DETAILS M8.1a and M8.1c & SPECIFICATIONS.
  2. STORM DRAIN SHALL BE PER 1998 MONTGOMERY COUNTY STORM DRAIN DESIGN CRITERIA CLASS C BEDDING CONDITIONS AS SHOWN IN THE TRENCH BEDDING CONDITIONS DETAIL SHEET. USE COMPACTED TRENCH BACKFILL OR GAB.

- COMPACTED TRENCH BACKFILL**
1. BACKFILL MATERIAL SHALL BE FREE FROM ORGANICS, FROZEN MATERIAL, ROCKS/STONES GREATER THAN 1.5-INCHES IN ANY DIMENSION, WASTE METAL PRODUCTS UNSIGHTLY DEBRIS, TOXIC MATERIAL OR OTHER DELETERIOUS MATERIALS.
  2. SHALL BE A MINIMUM 105 POUNDS PER CUBIC FOOT FOR THE MAXIMUM DRY DENSITY ACCORDING TO AASHTO T-180, METHOD C; AND SHALL NOT HAVE A LIQUID LIMIT GREATER THAN 30 NOR A PLASTICITY INDEX GREATER THAN 6.

**NOT TO SCALE**

04-18-2014
4-96
REVISION



APPROVED BY: *G. L. A.*

DATE: 4-18-14

**PIPE TRENCH DETAIL**

**DETAIL**

**60**

## Appendix K

3. Additional water use resulting from failed water main test shall be metered in gallons with the Commission reimbursed for water use at the prevailing rates.

F. PVC Water Pipe Continuity Testing.

1. Test tracer wire for continuity, in presence of Engineer, after backfill is complete and before Substantial Completion.
2. Notify Engineer in writing 5 working days in advance to schedule testing.
3. Continuity test to consist of locating the PVC water pipe and water services with an electronic-type pipe locator.
4. If test for continuity is negative, repair or replace as necessary to achieve continuity.

### 3.17 TEMPORARY BYPASS WATER SERVICE SYSTEM

- A. Provide telephone numbers to Engineer for designated after hours emergency work crew before installation of bypass system.
- B. Remove no more than 5,000 feet of existing main from service at one time unless Engineer approves otherwise.
- C. Before water main to be replaced or cleaned and lined is shut down, provide temporary bypass piping system of adequate size to provide water service and fire protection to affected properties as required herein and as directed by the Engineer:
  1. Notify Engineer:
    - a. At least 24 hours in advance for installation of temporary connections.
    - b. When additional bypass services are made.
    - c. When problems develop with any meters or services.
- D. Use nearest available fire hydrant for connection to temporary bypass system.
  1. Where fire hydrants cannot be used, excavate and tap existing water main at Engineer's direction.
  2. Provide backflow preventers on temporary bypass piping at connection to source.
  3. Make temporary bypass service attachments to fire hydrants in a manner that will allow removal with minimum effort in case of emergency.
  4. Provide temporary fire hydrants;
    - a. Provide markers that are clearly visible from street.
    - b. Brace hydrants.
    - c. Spacing as follows;
      - 1) Single family residential area.
        - a) Spacing maximum 500 feet apart measured along an improved roadway and within 400 feet from the most distant corner of any dwelling.
      - 2) Townhouses and garden apartments.
        - a) Spacing maximum 250 to 300 feet apart measured along an improved roadway and within 300 feet from the most distant corner of any building.
      - 3) Commercial, industrial, high-rise, and elevator type apartments.

- a) Spacing maximum 250 to 300 feet apart measured along an improved roadway.
  
- E. Provide temporary service connection for existing water services less than 2 inch diameter affected by required water main shutdowns.
  - 1. Existing inside meters:
    - a. Connect temporary service using temporary curb stop following Special Detail W/5.16a
    - b. When temporary service is no longer required, reconnect water service and provide new curb stop and curb box assembly.
  - 2. Existing outside meters:
    - a. Connect temporary service to existing meter following Special Detail W/5.16
    - b. Use notched meter covers when temporary services are connected.
    - c. Angle ball valves improperly connected to existing meter will be removed and correctly install by the Commission.
      - 1) A cost of \$500 per incident will be deducted from payment to Contractor.
    - d. When temporary service connection is no longer required:
      - 1) Reconnect water service and provide new meter assembly.
      - 2) Reset existing meter in new assembly.
      - 3) Meters improperly installed will be removed and correctly installed by the Commission.
        - a) A cost of \$500 per incident will be deducted from payment to Contractor.
  
- F. Placement and protection of temporary bypass piping system.
  - 1. Do not install between November 15 and March 1.
  - 2. Remove by November 15.
  - 3. Do not place during freezing weather and if already installed, protect from freezing.
  - 4. Provide cap and sampling connection at downstream end of each separate bypass piping segment.
    - a. Do not loop downstream end of segment back to or near inlet of segment.
  - 5. Cover sections of temporary bypass lines that cross driveways or sidewalks and ramp with bituminous cold mix.
  - 6. Protect concrete and brick driveways to prevent discoloration from bituminous material.
  - 7. Place bypass lines at road crossings below the existing road surface.
  - 8. Place sections of bypass or services that cross sidewalks with barricades, ramps, and fluorescent paint.
  - 9. Place crossings of bypass lines parallel and/or perpendicular to handicap ramps, below existing grade.
  - 10. Install and support temporary bypass piping at storm drain inlet crossing so that piping and supports do not impede storm water from entering storm drain inlet.
  
- G. House to house connections are prohibited.

- H. Temporary bypass piping for existing service connections 3 inch and larger diameter and temporary fire protection: Minimum 4 inch diameter.
- I. Disinfect temporary bypass piping, including temporary house services, utilizing distribution system residual.
  - 1. Commission will take bacteriological samples within 3 working days after receipt of written notification from Contractor that disinfection is complete.
  - 2. Results of sample analysis will be available within 3 working days after sampling.
  - 3. If samples are not approved, chlorinate and notify the Engineer to take new samples for testing.
  - 4. Cost of the additional disinfection, samples and testing: Contractor's expense.
  - 5. After samples are approved by the Commission, place bypass piping in service.
- J. Maintenance or repair of temporary bypass piping system.
  - 1. Respond to Commission's notification within 30 minutes and arrive at work site within 2 hours of notification.
  - 2. Provide adequate equipment, materials, and labor to take remedial actions within 1 hour of arrival at site in order to restore temporary bypass system in a timely manner at no cost to the Commission.
  - 3. Call radio room (301-206-4002) immediately after arriving at the work site and after work has been completed.
  - 4. Failure to respond back to Commission within 30 minutes, failure to arrive at work site within 2 hours or failure to take remedial action within 1 hour of arrival on site will result in a \$500 fee per remedial action event and cost incurred by the Commission to restore service and will be assessed to Contractor and deducted from payments

## PART 4 MEASUREMENT AND PAYMENT

### 4.1 PIPE

- A. Measurement: By linear foot of various types and sizes measured horizontally along centerline of pipe with no deductions made for lengths of fittings, connections, or valves, except:
  - 1. Fire hydrant leads will be measured beginning at water main centerline to hydrant centerline.
- B. Payment: At unit price for each linear foot for each size listed in Bid Schedule.
  - 1. Payment includes test pits required by Contract Documents, excavation, bedding and backfill; installation of pipe, fittings, valves, valve boxes, branch connections, connections to new and existing mains, corporation stops, and couplings for chlorination.

### 4.2 SERVICE CONNECTIONS

STANDARD SPECIFICATIONS  
SECTION 02512  
CLEANING AND LINING WATER MAINS

### Revision Log

*All changes made to this Section since the July 2019 Major Revision are included in this log and are highlighted in the text.*

Revision Date	Part	Change Made
4-8-21	3.3.A.f	Added restriction of disposal of residue to Cleaning section.

## PART 1 GENERAL

### 1.1 DESCRIPTION

- A. Section includes requirements for cleaning and lining existing cast iron and ductile iron water mains of various sizes following Contract Documents.

### 1.2 QUALITY ASSURANCE

- A. Pipe, fittings, and valves: Meet requirements of Section 02510.
- B. Cleaning and Lining.
1. Guarantee to restore cleaned and cement-mortar lined water mains to following minimum Hazen-Williams C Factor ( $C_{hw}$ ) based on nominal pipe diameters with proper allowance being made for bends and fittings following accepted practice:

NOMINAL PIPE DIAMETER	GUARANTEED HAZEN-WILLIAMS $C_{hw}$ FACTOR
3 inch and smaller	90
4 inch	90
6 inch	100
8 inch	110
10 inch	115
12 inch	120
14 inch	125
16 inch	125
20 inch	125
Above 20 inch	130

### 1.3 SUBMITTALS

- A. Submit following Section 01330.
  - 1. Temporary bypass water service system following Section 02510.
  - 2. Method of covering access excavations during non-working periods.
  - 3. Proposed method for disposal of debris and water used for cleaning.
  - 4. Cement mortar lining mix data including dry weights of cement; sand; admixture name, type and quantity, if used; volume of water per cubic yard.
  
- B. Submit Certificate of Compliance following Section 01450 for following materials:
  - 1. Sand.
  - 2. Cement.
    - a. Include certification that facility where cement was produced complies with ANSI/NSF Standard 61.

### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Ship cement to Contract site in full sacks and store so it is kept dry. Do not use cement from broken sacks for lining operations.

## PART 2 PRODUCTS

### 2.1 MATERIALS

- A. Pipe and Fittings: Following Section 02510.
  
- B. Temporary Bypass System:
  - 1. Temporary bypass and fire hydrant piping to maintain water service and fire protection.
  - 2. Check valves 3 inches to 10 inches in diameter for temporary installation during disinfection.
  - 3. Notched meter covers for temporary use when temporary piping is in service.
  - 4. Clear plastic bags for hanging of meters.
  
- C. Cleaning and Lining: AWWA C602 except as modified herein.
  - 1. Sand: ASTM C144 and kept clean and free of foreign materials during transportation and storage on site.
  - 2. Cement: Type II, manufactured at facility certified for compliance with ANSI/NSF Standard 61, and in sacks bearing NSF approval stamp.
  - 3. Proportions of cement and sand in mortar: 1 part cement to 1 part sand.
  
- D. Equipment.
  - 1. Cleaning.

- a. Drag cleaning, hydraulic jet, abrasive pig, metal scraping, or power boring type. Klocker type not allowed.
- 2. For placing cement mortar lining:
  - a. Applicator head that in one course centrifugally projects mortar against surface of pipe sections and long radius bends, without injurious rebound, and with sufficient velocity to cause mortar to be densely packed and to adhere in place.
    - 1) Rate of travel of machine and rate of discharge of mortar against wall of pipe: Entirely mechanically controlled to produce smooth, uniform thickness of lining throughout interior of pipe.
    - 2) Attachment with rotating or drag steel trowels follows applicator head and trowels cement mortar lining to a smooth, hard surface of uniform thickness.
    - 3) Operation of trowels: Continuous during application of cement mortar and forward movement of applicator head.
    - 4) Machine.
      - a) Moves ahead of lining so nothing comes in contact with troweled surface until it has attained its final set.
      - b) Control of forward movement and mechanical placing of mortar: Assure uniform thickness of mortar lining following AWWA C602.

### PART 3 EXECUTION

#### 3.1 WORK PERFORMED BY THE COMMISSION

- A. Shutdowns: See Section 02510.
- B. Notify all property owners in advance of work. See Public Notification Section 01110.
- C. Notify Customer Care Team when Contractor is removing and reinstalling meters for temporary by-pass system.
- D. Take and analyze water samples: See Section 02510.

#### 3.2 PREPARATION

- A. Temporary Bypass Water Service System.
  - 1. Follow Section 02510 and specified herein.
    - a. Provide check valves 3 inches to 10 inches in diameter as close as possible to existing water source, for temporary installation during disinfection as approved by Engineer.
    - b. Do not install bypass between November 15 and March 1 in any calendar year.
- B. Access Openings.

1. Provide access at locations required to complete Work and approved by Engineer.
2. Excavate, provide sheeting and shoring, dewater, and backfill following Section 02315.
3. Provide sediment control following Section 01570.
4. Make access openings for pipe with space to admit and withdraw equipment with least delay and without causing damage to existing pipe.
5. After shutdown, dewater pipe and drain low spots. Provide measures as required to prevent water from entering work sections and maintain dry condition.
6. Remove pipe at access points by cutting with power operated pipe cutting machines, capable of making fast, true and smooth cuts so valves or pipe sections removed may be replaced in true alignment.
  - a. Where difficulties due to obstructions make it impossible to use preceding method of cutting pipe, other methods may be used provided they meet Engineer's approval and same results are attained with no additional cost to the Commission.
7. Measure outside diameter of cut pipes to properly determine class of pipe in each cut.
  - a. Class of pipe will determine proper sized sleeves or couplings to be used in reconnection.
8. Replace exposed lead or poured joints with mechanical joint fittings or couplings at Engineer's direction.

### 3.3 CLEANING AND LINING

- A. Perform cleaning and lining: Following AWWA C602 and specified herein.
  1. Cleaning.
    - a. Clean interior surfaces of pipe and fittings to be lined by machine where practicable and by hand where access by machine is not possible.
    - b. Remove obstructions in pipeline that prohibit passage of cleaning or lining equipment.
    - c. Remove loose scale, tuberculation, oil, grease, remains of old coating materials, and accumulations of debris.
    - d. Remove accumulations of water on bottom of interior of pipe.
    - e. Handle cleaning water in closed discharge hoses to prevent water and residue from causing damage.
    - f. Dispose of residue from cleaning and other construction operations as well as water from dewatering operations, in a manner satisfactory to Engineer and authority having jurisdiction over area where work site is located. **Disposal of residue and/or water from cleaning operations into storm drains or the environment is not permitted.**
    - g. Filter solids-laden water through an approved desilting device.
  2. Lining.
    - a. Place lining with machines in 1 course specified herein.
    - b. Thickness of cement mortar lining: Uniform and follow AWWA C602.

- c. Nominal lining thickness for old and new gray cast iron and ductile iron:

<u>Pipe Diameter, in.</u>	<u>Lining Thickness, in.</u>	<u>Tolerance, in.</u>
4-10	3/16	-1/16, +1/8
12-20	1/4	-1/16, +1/8
24-36	5/16	-1/16, +1/8
>36	5/16	-1/16, +3/16

- d. Correct lining not within this tolerance at Engineer's direction.
- e. Place cement mortar lining so as not to seal or otherwise reduce effectiveness of existing air valves and blowoffs.
- f. Perform cement mortar lining of sharp bends, fittings, and areas closely adjacent to valves or other points where machine access is impossible or impractical and correct defective areas by hand.
- g. Hand mortar work: Equal to machine placed work and use same materials. 1) If necessary, moisten pipe prior to placement of mortar.  
2) Use steel trowels except where curvature of bends prohibit their use.  
3) Complete handwork in section of pipeline within 24 hours after machine work in that section is complete.  
4) Provide smooth transition from handwork to machine-placed mortar.
- h. Remove bends, fittings and pipe that cannot be lined by hand. Provide new bends, fittings and pipe.
- i. Feather edges between newly lined areas and unlined areas.
- j. Clean and line mains up to side valves and sections of pipe removed for access.
- k. Remove cleaning debris and lining material from existing service connections on lined main.  
1) Clear service connections that are 2-inch or less in diameter and on pipes less than 24-inch diameter by backflushing with air or water within 2 hours of placing lining.  
2) On pipes 24-inch and larger, temporarily plug or cover service connections prior to lining, and remove plugs or covers after lining.  
a) Service connections may be flushed with Engineer's prior approval.  
3) Do not damage lining when clearing service connections.  
4) Use in-house valve to blow back if curb stop is inoperable.
- l. Immediately after completing lining of length of pipe between access openings or at end of day's run, close that section of pipe at each end and cover access openings to prevent circulation of air to maintain moist condition.
- m. With Engineer's approval, 24 hours after placing lining, fill section between bulkheads or gate valves with system water for curing lining.
- n. Cure pipe lining for minimum of 48 hours before recharging and disinfecting.

B. Disinfection.

1. Before newly lined water main sections are disinfected, perform following:

- a. Reinstall sections of pipe removed for access or install valves as approved by Engineer to include replacement of lead or poured joints when directed.
  - b. Install fittings and mechanical couplings as required so that there is no visible leakage.
  - c. Coat scarred exterior surfaces of pipe and fittings, and coat exterior surfaces of mechanical couplings, including bolts and nuts, following Section 02510.
  - d. New pipe, fittings, and valves installed in existing mains: Clean and spray or swab with minimum 1 percent solution of chlorine just before installation.
  - e. Provide corporation stops in water mains for disinfection.
  - f. Provide new taps as required for water house connections following Section 02510.
  - g. Provide means to flush.
  - h. Replace lined-through valves with new valves.
  - i. Provide temporary check valves between cleaned and uncleaned pipe for disinfection purposes.
2. To disinfect, introduce distribution system water to cleaned and lined mains.
    - a. Testing of water from cleaned and lined water mains: Same as for temporary bypass system.
  3. Discharge of Chlorinated Water: See Section 02511.

C. Returning Lined Main to Service.

1. When disinfection is completed and line is approved for service, Engineer will notify Contractor to restore line to service.
  - a. Remove corporation stops used for disinfection and install plugs.
  - b. Coat plug assemblies.
  - c. After pipe access openings are closed and before backfill, fully recharge main and eliminate visible leakage.
2. After approval of Engineer.
  - a. Backfill excavated areas.
  - b. Reactivate house connections and remove temporary bypass piping system.
  - c. Reinstall removed meters at same location from which they were removed with water flow in correct direction and using new gaskets compatible with meter.
3. After permanent service is restored and temporary bypass piping is removed, restore disturbed areas.
  - a. Seed and sod following Section 02920.
  - b. Restore pavement following Section 02950.
  - c. Deliver valves and fire hydrants removed from lined section of water main and not reused to Commission's warehouse.
4. Meters improperly installed will be removed and correctly installed by the Commission. A cost of \$500 per incident will be deducted from payment to Contractor.

D. Field Quality Control.

1. Inspection.

- a. Provide CCTV inspection of completed lining sections at Engineer's direction.
  - b. Use equipment approved for use in potable water system.
  - c. Correct defective lining at Engineer's approval.
2. Removal of Test Section.
- a. At Engineer's direction, excavate, cut, and remove test section of pipe not less than 2 feet, nor more than 3 feet, long for applied cement lining thickness verification and inspection.
  - b. Excavate minimum of 2 feet below pipe to be inspected.
  - c. If thickness is not within requirements specified herein, correct lining thickness at Engineer's approval.
  - d. After inspection, reinstall removed pipe section utilizing sleeves.
  - e. Backfill excavation and repair paving as required.
3. Testing.
- a. The Commission may test completed sections to determine Hazen-Williams C Factor.
  - b. If Hazen-Williams C Factor ( $C_{hw}$ ) determined by test is less than guaranteed minimum values herein, remand to Engineer for resolution.

#### PART 4 MEASUREMENT AND PAYMENT

##### 4.1 CLEANING AND LINING WATER MAINS

- A. Measurement: By linear foot of various sizes of water main cleaned and lined, measured horizontally along centerline of pipe, to include valves and fittings.
- B. Payment: At unit price listed in Bid Schedule.
  - 1. Payment includes providing and removing temporary bypass piping system; required excavations, backfill and bedding; installing mechanical couplings, pipe, fittings, valves, and valve boxes; complete cleaning and lining procedure; disinfection; and surface restoration excluding restoration.

##### 4.2 ADDITIONAL VALVES

- A. Measurement: Each valve installed complete in place including setting of valve box as shown on Standard Details, at Engineer's direction.
- B. Payment: At contingent unit price listed in Bid Schedule.
  - 1. Payment includes excavation; backfill; cutting pipe; installation of valve, fittings and valve box; permanent pavement replacement; and incidental appurtenances.

##### 4.3 TEST SECTIONS

- A. Measurement: Each test section provided, at Engineer's direction.
- B. Payment: At contingent unit price listed in Bid Schedule.
  - 1. Payment includes excavation; backfill; cutting, removing and replacing test section with sleeves; permanent pavement replacement and incidental appurtenances.
  - 2. No payment will be made for test sections where lining thickness is not within requirements specified herein.

#### 4.4 OBSTRUCTIONS

- A. Measurement: Each access opening required to clean and line obstructed portion of work at Engineer's direction.
  - 1. Additional work required by obstructions not shown on 200-foot scaled maps or as-built drawings.
- B. Payment: At contingent unit price listed in Bid Schedule.
  - 1. Payment includes excavation and backfill, installation of mechanical couplings, pipe and fittings, permanent pavement replacement and incidental appurtenances.

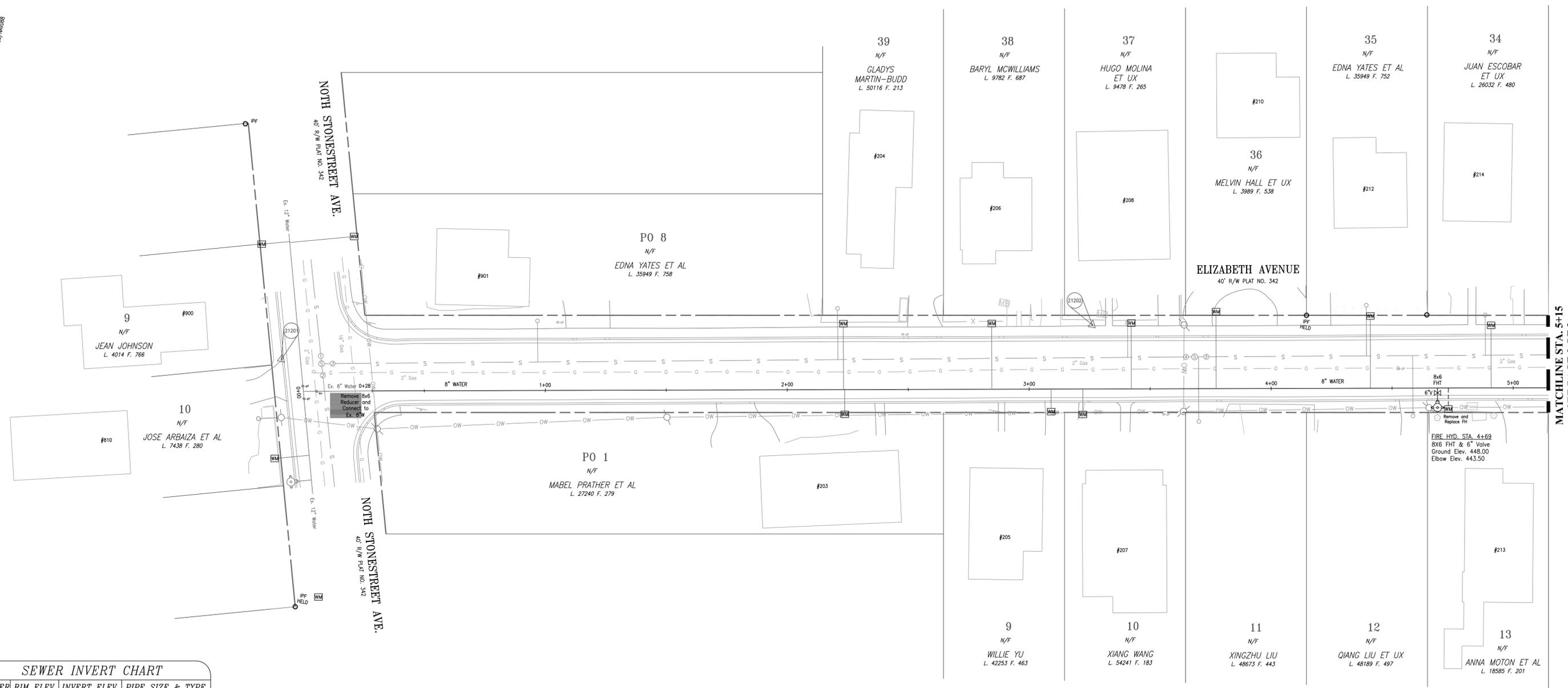
#### 4.5 CCTV INSPECTION OF LINED PIPES

- A. Measurement: By linear foot of water main inspected using CCTV, when no lining defects are found in section of pipe televised.
- B. Payment: At contingent unit price listed in Bid Schedule.
  - 1. Payment includes labor, CCTV equipment, recording media, traffic control.
  - 2. No payment will be made for televising sections where lining defects are found.

#### 4.6 REPLACEMENT OF LEAD JOINTS

- A. Payment for replacement of lead joints: See Article 14 of General Conditions.

**\*\*WSSC\*\***



MATCHLINE STA. 5+15  
SEE PAGE 2 OF 2

NUMBER	RIM ELEV.	INVERT ELEV.	PIPE SIZE & TYPE
1	453.39	447.04	8" TERRA COTTA
2	453.39	447.09	8" TERRA COTTA
3	453.39	446.69	8" TERRA COTTA
4	448.41	442.61	8" TERRA COTTA
5	448.41	442.51	8" TERRA COTTA
6	441.13	436.53	8" TERRA COTTA
7	441.13	436.43	8" TERRA COTTA
8	438.42	432.22	8" TERRA COTTA
9	438.42	432.02	8" TERRA COTTA
10	438.42	432.32	8" TERRA COTTA
11	436.89	432.54	8" TERRA COTTA
12	436.89	432.99	8" TERRA COTTA
13	436.89	432.64	8" TERRA COTTA

NUMBER	RIM ELEV.	INVERT ELEV.	PIPE SIZE & TYPE
1	438.64	435.54	14" X22" RCP
2	438.64	436.44	15" RCP
3	438.27	435.27	15" RCP
4	438.27	435.17	19" X30" RCP
5	438.39	434.29	19" X30" RCP
6	438.39	433.99	24" RCP
7	438.39	434.39	18" RCP
8	438.62	434.72	18" RCP
9	438.62	434.82	18" RCP

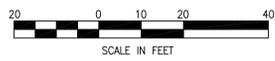
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
21201	520475.7188	1269426.7382	453.80	REBAR & CAP
21202	520549.7526	1269753.8347	448.71	REBAR & CAP
21203	520600.5632	1270051.1714	444.26	PK NAIL
21204	520640.1799	1270394.3832	438.24	REBAR & CAP

- WATER CONSTRUCTION NOTES:**
- Remove old main and replace with Pressure Class 350 DIP in same trench unless otherwise shown, minimum 3.5' cover required.
  - Trench bedding for water main construction shall be in accordance with WSSC Standard Detail M/8.1a.
  - See construction specs. and WSSC Standard Detail W/1.0 for water main testing.
  - Water service along the project corridor must be maintained throughout the construction period via a temporary by-pass system.
  - All water main pipes and fittings are to be restrained.
  - Restrain Fire Hydrants to main as per WSSC Standard Detail B/2.1.
  - All restrained pipe fittings shall be accomplished using Meg-A-Lugs or approved equal.
  - All restrained pipes shall be accomplished using Field Lok Gaskets or approval equal.
  - Water main alignment shown on this drawing is as per the most recent plan and/or utility locates. Contractor shall verify actual water main location. Horizontal bends shown are approximate location and size. Additional bends may be necessary depending upon the actual water main alignment.
  - When connecting new water mains to the existing system, a solid sleeve must be used as per WSSC Standard Detail W/11.0.

- GENERAL NOTES:**
- The contractor shall locate the existing gas house connections and the existing sewer house connections prior to excavation for the proposed water main.
  - Contractor to submit schedule and layout for temporary bypass to DPW's Contract Manager for approval prior to water main construction.
  - Any galvanized iron house connections encountered must be replaced from the main to the meter with 1" copper, type K.
  - All single family residential connections must be 1-inch taps.
  - Fire hydrants, leads, tees and valves are to be removed and replaced.
  - Full depth GAB to be placed in all utility trenches as backfill.
  - All house connections that are spliced, must be reconnected using a flare to flare connection. Compression fittings are not allowed.
  - All **bolded/dashed** water house connections shown on this plan are to be replaced with 1-inch copper, type K from the main to the meter (total=2).

**\* ALL JOINTS AND FITTINGS ARE TO BE RESTRAINED**

BEFORE BEGINNING CONSTRUCTION CONTACT  
"MISS UTILITY"  
AT  
1-800-257-7777  
AT LEAST 48 HOURS  
PRIOR TO EXCAVATION



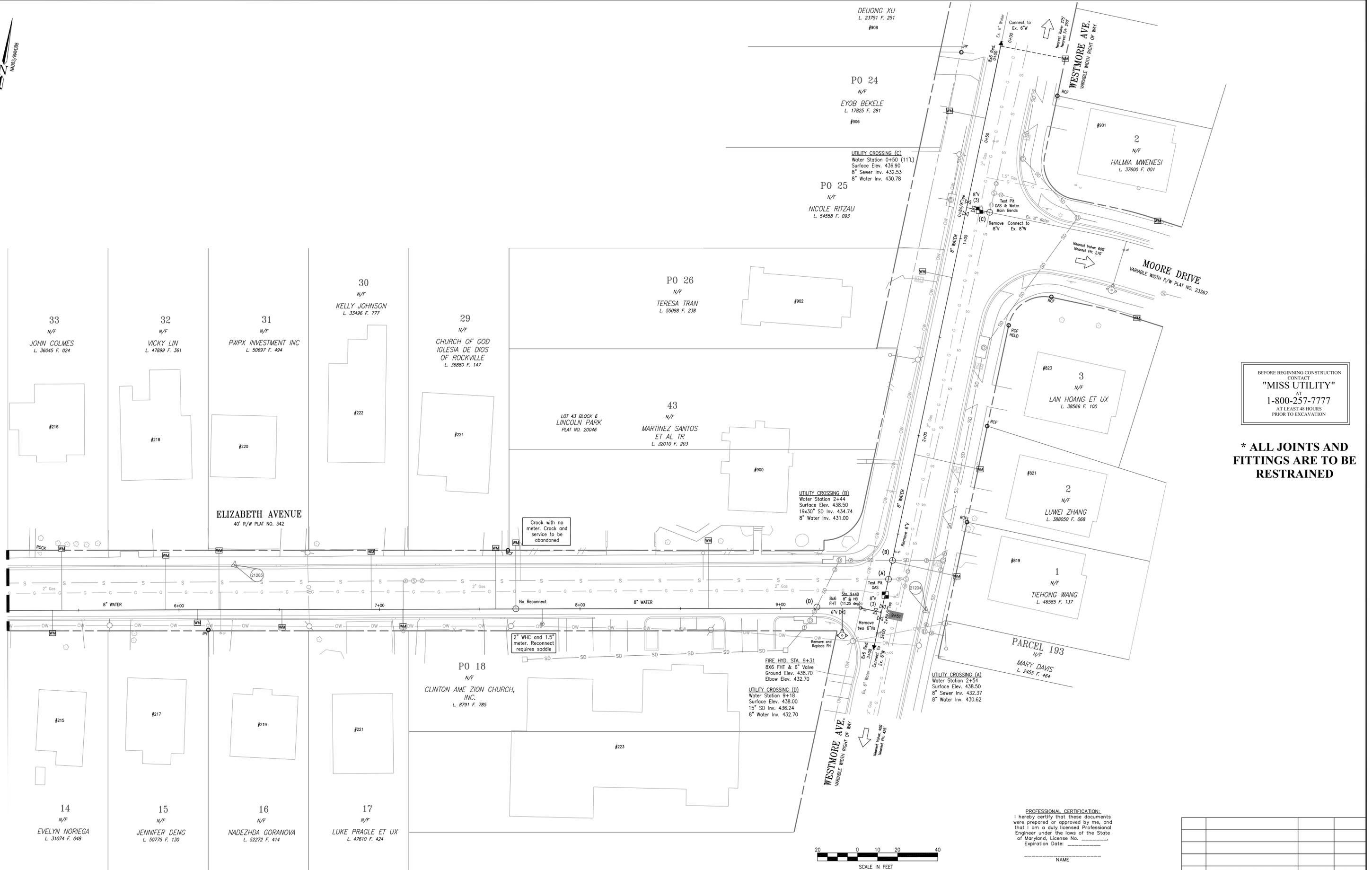
PROFESSIONAL CERTIFICATION:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the laws of the State of Maryland. License No. \_\_\_\_\_  
Expiration Date: \_\_\_\_\_

NO.	REVISIONS	AFTER PLAN APPROVAL	STAFF INITIAL	DATE

DESIGNED _____	APPROVED _____ DATE _____	DEPARTMENT OF PUBLIC WORKS CITY OF <b>ROCKVILLE</b> MARYLAND AT VINSON      ROCKVILLE, MARYLAND	DATE PROJECT STARTED _____ DATE PROJECT COMPLETED _____ DATE ACCEPTED BY CITY _____ CITY INSPECTOR _____	AS BUILT COMPLETED _____ DATE _____ _____ CHIEF, CONTRACTS MANAGEMENT	<b>WATER MAIN REHABILITATION PROGRAM</b>	<b>ELIZABETH AVENUE WATER MAIN</b> City of Rockville Department of Public Works, Engineering Division Election District No. 4      Montgomery County, Maryland	DATE: JANUARY 2021	SCALE: 1"=20'	SHEET NO. 1 OF 2	FILE # _____
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MATCHLINE STA. 5+15  
SEE PAGE 1 OF 2



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AT  
1-800-257-7777  
AT LEAST 48 HOURS  
PRIOR TO EXCAVATION

**\* ALL JOINTS AND FITTINGS ARE TO BE RESTRAINED**

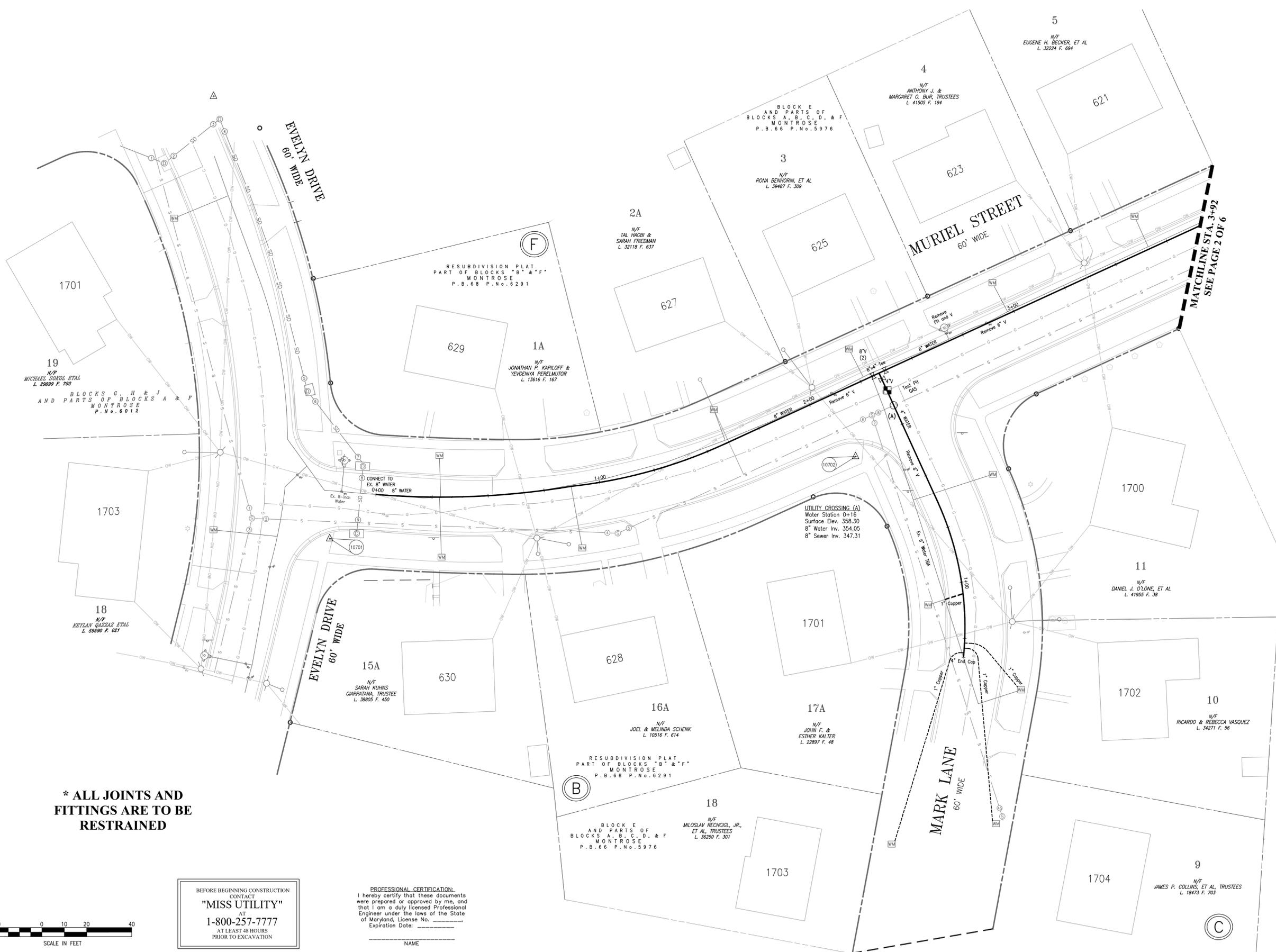
PROFESSIONAL CERTIFICATION:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. \_\_\_\_\_  
Expiration Date: \_\_\_\_\_

NAME \_\_\_\_\_



NO.	REVISIONS AFTER PLAN APPROVAL	STAFF INITIAL	DATE

DESIGNED _____	APPROVED _____ DATE _____	DEPARTMENT OF PUBLIC WORKS CITY OF <b>ROCKVILLE</b> MARYLAND AT VINSON ROCKVILLE, MARYLAND	DATE PROJECT STARTED _____ DATE PROJECT COMPLETED _____ DATE ACCEPTED BY CITY _____ CITY INSPECTOR _____	AS BUILT COMPLETED _____ DATE _____ _____ CHIEF, CONTRACTS MANAGEMENT	<b>WATER MAIN REHABILITATION PROGRAM</b>	<b>ELIZABETH AVENUE WATER MAIN</b> City of Rockville Department of Public Works, Engineering Division Election District No. 4 Montgomery County, Maryland	DATE: JANUARY 2021 SCALE: 1"=20' SHEET NO. 2 OF 2	FILE # _____
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**SEWER INVERT CHART**

NUMBER	RIM ELEV.	INVERT ELEV.	PIPE SIZE & TYPE
1	353.77	344.07	8" TERRACOTTA
2	353.77	344.27	8" TERRACOTTA
3	353.77	344.32	8" TERRACOTTA
4	355.71	345.70	8" TERRACOTTA
5	355.71	345.80	8" TERRACOTTA
6	358.02	346.90	8" TERRACOTTA
7	358.02	347.20	8" TERRACOTTA
8	358.02	347.10	8" TERRACOTTA
9	360.90	354.10	8" TERRACOTTA
10	360.90	354.00	8" TERRACOTTA
11	360.78	351.60	8" TERRACOTTA
12	360.78	351.30	8" TERRACOTTA
13	355.76	346.26	8" TERRACOTTA
14	355.76	346.16	8" TERRACOTTA
15	353.93	343.81	8" TERRACOTTA
16	353.93	343.51	8" TERRACOTTA
17	350.16	341.95	8" TERRACOTTA
18	350.16	341.24	8" TERRACOTTA
19	350.16	341.75	8" TERRACOTTA
20	350.16	341.98	8" TERRACOTTA
21	352.25	344.70	8" TERRACOTTA
22	352.25	344.80	8" TERRACOTTA
23	352.25	344.80	8" TERRACOTTA
24	352.25	344.85	8" TERRACOTTA
25	355.74	CNO	CANNOT ACCESS
26	355.74	CNO	CANNOT ACCESS
27	355.74	CNO	CANNOT ACCESS
28	357.83	348.88	8" TERRACOTTA
29	357.83	348.98	8" TERRACOTTA
30	357.64	349.04	8" TERRACOTTA
31	357.00	349.20	8" TERRACOTTA
32	351.61	335.60	8" TERRACOTTA
33	351.61	335.60	8" TERRACOTTA
34	351.61	335.60	8" TERRACOTTA
35	349.14	336.40	8" TERRACOTTA
36	349.14	336.50	8" TERRACOTTA
37	343.57	337.97	8" TERRACOTTA
38	343.57	338.07	8" TERRACOTTA
39	346.69	339.69	8" TERRACOTTA
40	346.69	339.79	8" TERRACOTTA
41	346.69	339.79	8" TERRACOTTA
42	344.70	340.70	8" TERRACOTTA
43	347.45	339.95	8" TERRACOTTA
44	347.45	340.15	8" TERRACOTTA
45	357.33	345.13	8" TERRACOTTA

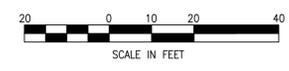
**STORMDRAIN INVERT CHART**

NUMBER	RIM ELEV.	INVERT ELEV.	PIPE SIZE & TYPE
1	350.05	341.35	24" R.C.P.
2	350.05	341.75	24" R.C.P.
3	349.74	342.44	24" R.C.P.
4	349.74	344.94	18" R.C.P.
5	352.17	347.79	18" R.C.P.
6	352.17	348.19	18" R.C.P.
7	353.52	348.70	18" R.C.P.
8	353.52	348.90	15" R.C.P.
9	353.52	349.20	15" R.C.P.
10	353.80	346.40	18" R.C.P.
11	353.80	345.30	18" R.C.P.
12	350.52	342.72	18" R.C.P.
13	350.52	340.77	48" R.C.P.
14	350.52	339.44	48" R.C.P.
15	350.52	342.72	15" R.C.P.
16	350.95	348.75	18" R.C.P.
17	350.02	338.10	48" R.C.P.
18	350.02	345.02	18" R.C.P.
19	350.02	339.02	48" R.C.P.
20	350.02	345.85	15" R.C.P.
21	350.70	347.70	15" R.C.P.
22	355.71	352.71	15" R.C.P.
23	344.20	341.20	18" R.C.P.
24	347.59	334.00	48" R.C.P.
25	347.59	333.50	48" R.C.P.
26	344.12	335.90	18" R.C.P.
27	344.12	338.70	18" R.C.P.
28	344.12	334.70	18" R.C.P.
29	344.27	339.60	18" R.C.P.
30	343.88	333.20	18" R.C.P.
31	343.88	330.30	48" R.C.P.
32	343.88	330.20	48" R.C.P.
33	355.77	347.07	18" R.C.P.
34	355.77	346.97	18" R.C.P.
35	353.19	330.30	15" R.C.P.
36	353.19	330.20	15" R.C.P.

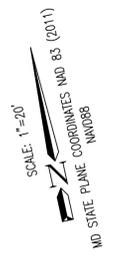
**\* ALL JOINTS AND FITTINGS ARE TO BE RESTRAINED**

BEFORE BEGINNING CONSTRUCTION CONTACT  
**"MISS UTILITY"**  
 AT  
**1-800-257-7777**  
 AT LEAST 48 HOURS PRIOR TO EXCAVATION

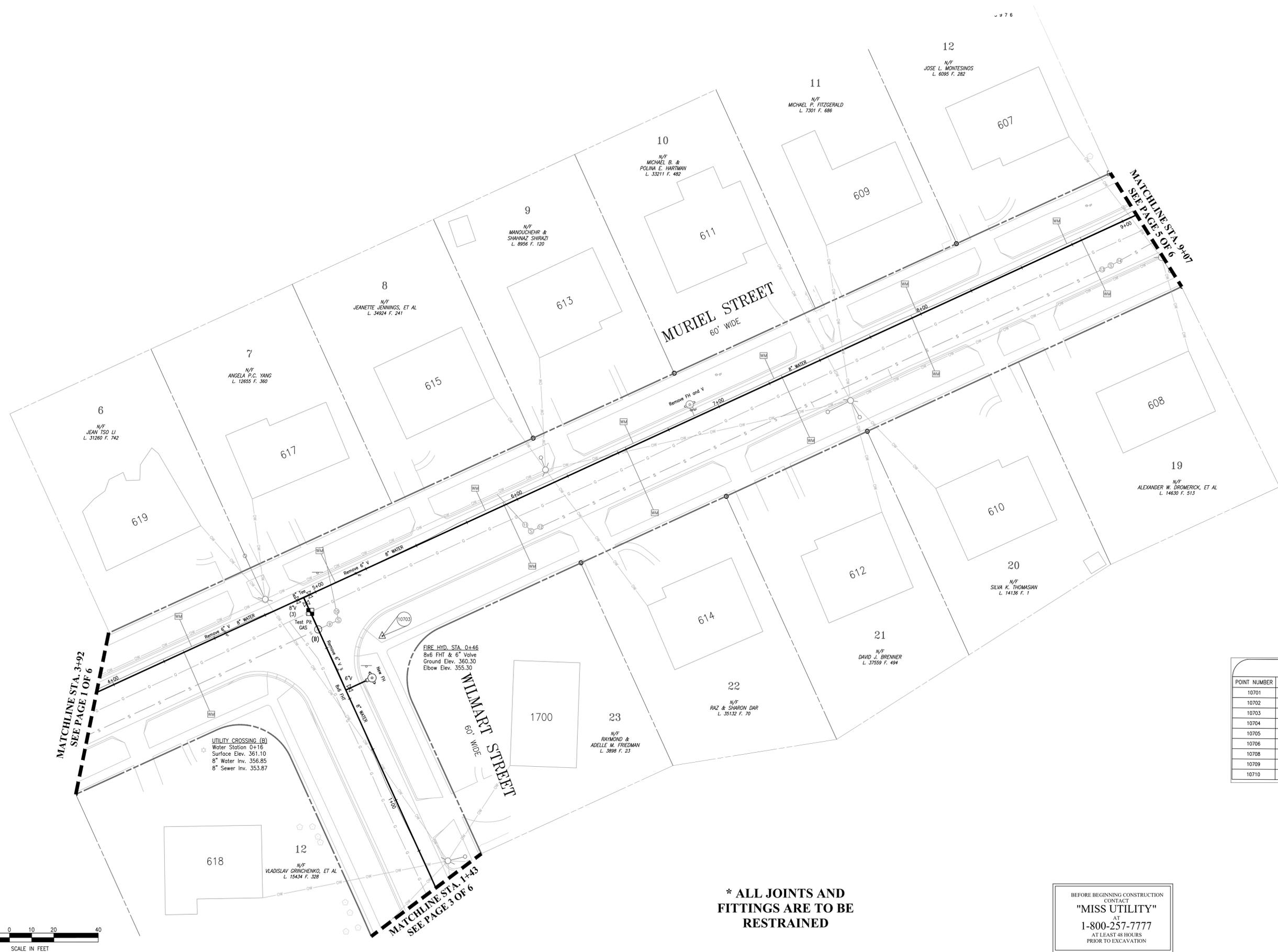
**PROFESSIONAL CERTIFICATION:**  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. \_\_\_\_\_  
 Expiration Date: \_\_\_\_\_  
 NAME \_\_\_\_\_



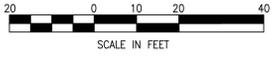
DESIGNED _____	APPROVED _____ DATE _____	DEPARTMENT OF PUBLIC WORKS CITY OF ROCKVILLE MARYLAND AT WINSON ROCKVILLE, MARYLAND	DATE PROJECT STARTED _____ DATE PROJECT COMPLETED _____ DATE ACCEPTED BY CITY _____ CITY INSPECTOR _____	AS BUILT COMPLETED _____ DATE _____ CHEF, CONTRACTS MANAGEMENT	<b>WATER MAIN REHABILITATION PROGRAM</b>	<b>MONTROSE NEIGHBORHOOD WATER MAIN</b> City of Rockville Department of Public Works, Engineering Division Election District No. 4 Montgomery County, Maryland	NO. _____ REVISIONS AFTER PLAN APPROVAL _____ STAFF INITIAL _____ DATE _____	DATE: MAY 2020	SCALE: 1"=20'	SHEET NO. 1 OF 6	FILE # _____
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SCALE: 1"=20'  
 MD STATE PLANE COORDINATES AND GS (2011)  
 MAP NUMBER



BENCHMARK CHART				
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
10701	506193.3377	1274450.4153	354.07	TRAVERSE POINTS
10702	506229.8001	1274684.8014	358.16	TRAVERSE POINTS
10703	506357.5806	1274967.2050	361.27	TRAVERSE POINTS
10704	506023.4820	1275055.0300	351.61	TRAVERSE POINTS
10705	506065.7973	1275259.3217	348.43	TRAVERSE POINTS
10706	505996.2802	1275504.4975	343.56	TRAVERSE POINTS
10708	506628.0362	1275744.7069	350.46	TRAVERSE POINTS
10709	506439.1830	1276215.8270	356.75	TRAVERSE POINTS
10710	506604.7591	1275432.4381	353.39	TRAVERSE POINTS



MATCHLINE STA. 3+92  
 SEE PAGE 1 OF 6

MATCHLINE STA. 9+07  
 SEE PAGE 5 OF 6

MATCHLINE STA. 1+43  
 SEE PAGE 3 OF 6

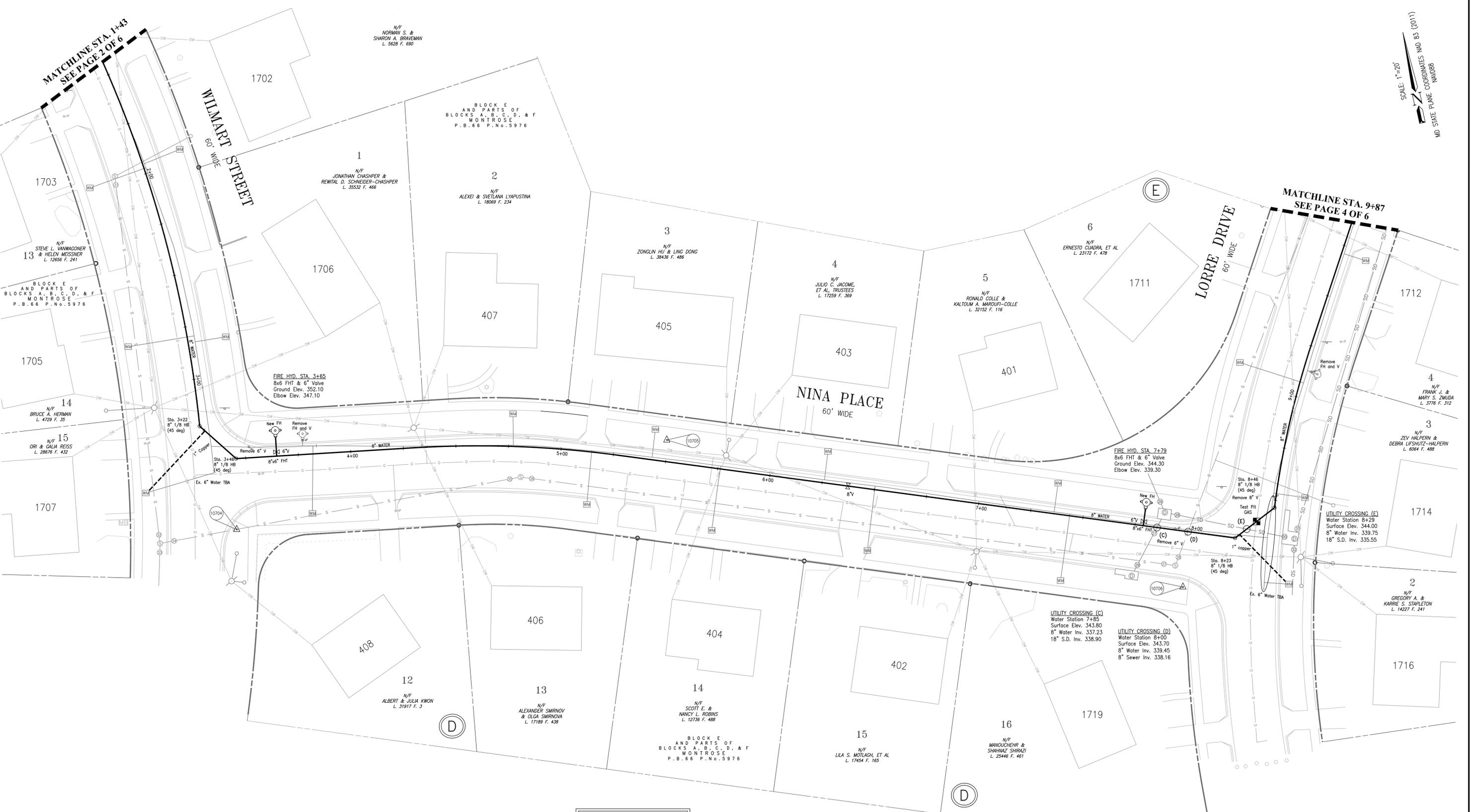
**\* ALL JOINTS AND FITTINGS ARE TO BE RESTRAINED**

BEFORE BEGINNING CONSTRUCTION CONTACT  
 "MISS UTILITY"  
 AT  
 1-800-257-7777  
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 PRIOR TO EXCAVATION

NO.	REVISIONS AFTER PLAN APPROVAL	STAFF INITIAL	DATE

DESIGNED _____	APPROVED _____ DATE _____	DEPARTMENT OF PUBLIC WORKS CITY OF <b>ROCKVILLE</b> MARYLAND AT VINSON ROCKVILLE, MARYLAND	DATE PROJECT STARTED _____	AS BUILT COMPLETED _____ DATE _____	<b>WATER MAIN REHABILITATION PROGRAM</b>	<b>MONTROSE NEIGHBORHOOD WATER MAIN</b> City of Rockville Department of Public Works, Engineering Division Election District No. 4 Montgomery County, Maryland	DATE: MAY 2020	SCALE: 1"=20'	SHEET NO. 2	FILE # _____
DRAFTED _____	DIRECTOR OF PUBLIC WORKS _____		DATE PROJECT COMPLETED _____	DATE ACCEPTED BY CITY _____			CITY INSPECTOR _____	CHIEF, CONTRACTS MANAGEMENT _____	AT LEAST 48 HOURS PRIOR TO EXCAVATION	

SCALE: 1"=20'  
NAD STATE PLANE COORDINATES NAD83 (2011)



BEFORE BEGINNING CONSTRUCTION CONTACT "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO EXCAVATION

\* ALL JOINTS AND FITTINGS ARE TO BE RESTRAINED

NO.	REVISIONS AFTER PLAN APPROVAL	STAFF INITIAL	DATE

DESIGNED _____	APPROVED _____ DATE _____
DRAFTED _____	
CHECKED _____	DIRECTOR OF PUBLIC WORKS

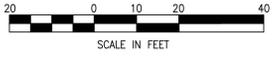
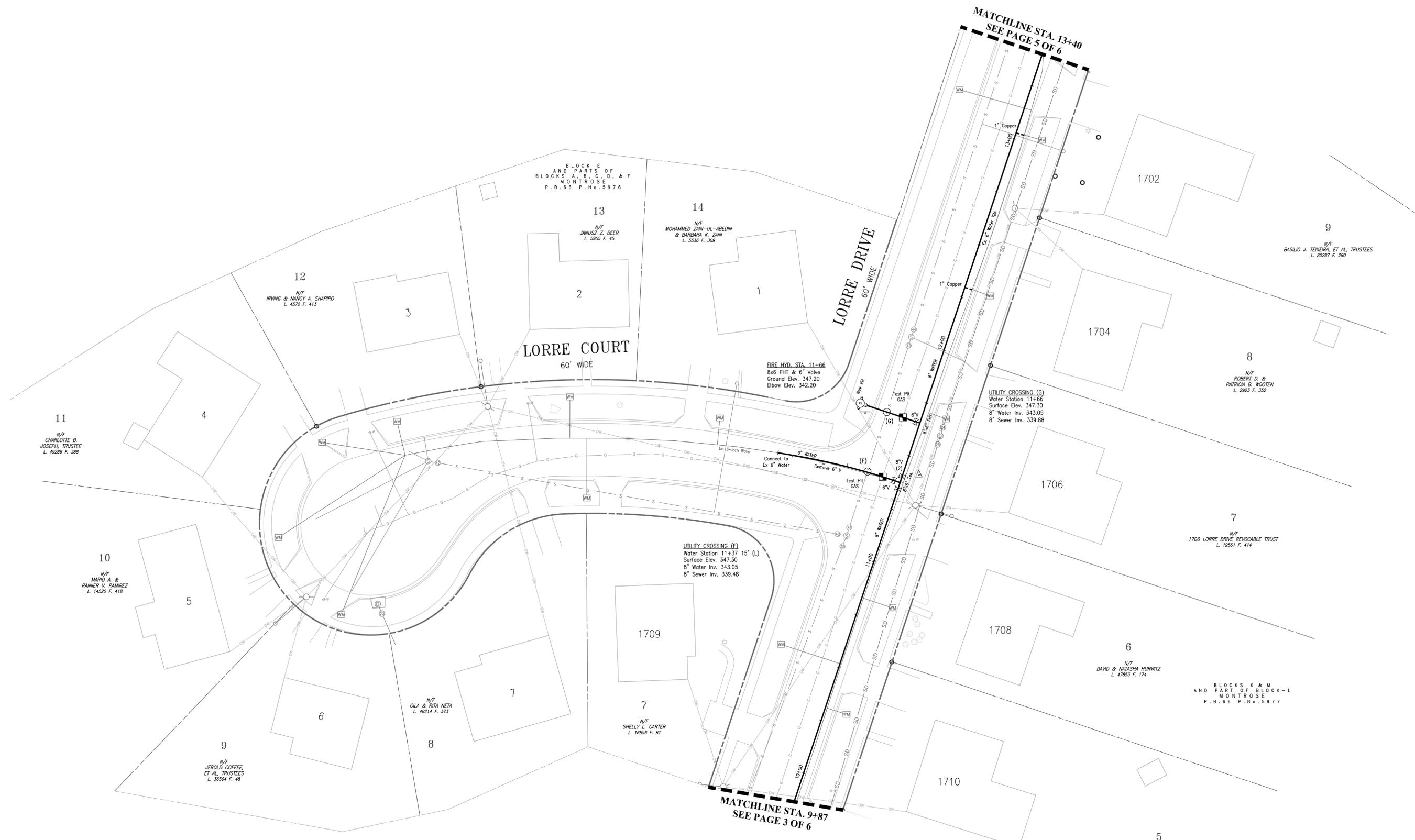
DEPARTMENT OF PUBLIC WORKS  
CITY OF ROCKVILLE  
MARYLAND AT WINSON ROCKVILLE, MARYLAND

DATE PROJECT STARTED _____	AS BUILT COMPLETED _____ DATE _____
DATE PROJECT COMPLETED _____	
DATE ACCEPTED BY CITY _____	CHEF, CONTRACTS MANAGEMENT
CITY INSPECTOR _____	

WATER MAIN REHABILITATION PROGRAM

MONTROSE NEIGHBORHOOD WATER MAIN  
City of Rockville  
Department of Public Works, Engineering Division  
Election District No. 4  
Montgomery County, Maryland

DATE: MAY 2020	SCALE: 1"=20'	SHEET NO. 3	FILE #
		OF 6	



BEFORE BEGINNING CONSTRUCTION  
CONTACT  
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AT LEAST 48 HOURS  
PRIOR TO EXCAVATION

**\* ALL JOINTS AND  
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DRAFTED _____	DIRECTOR OF PUBLIC WORKS	
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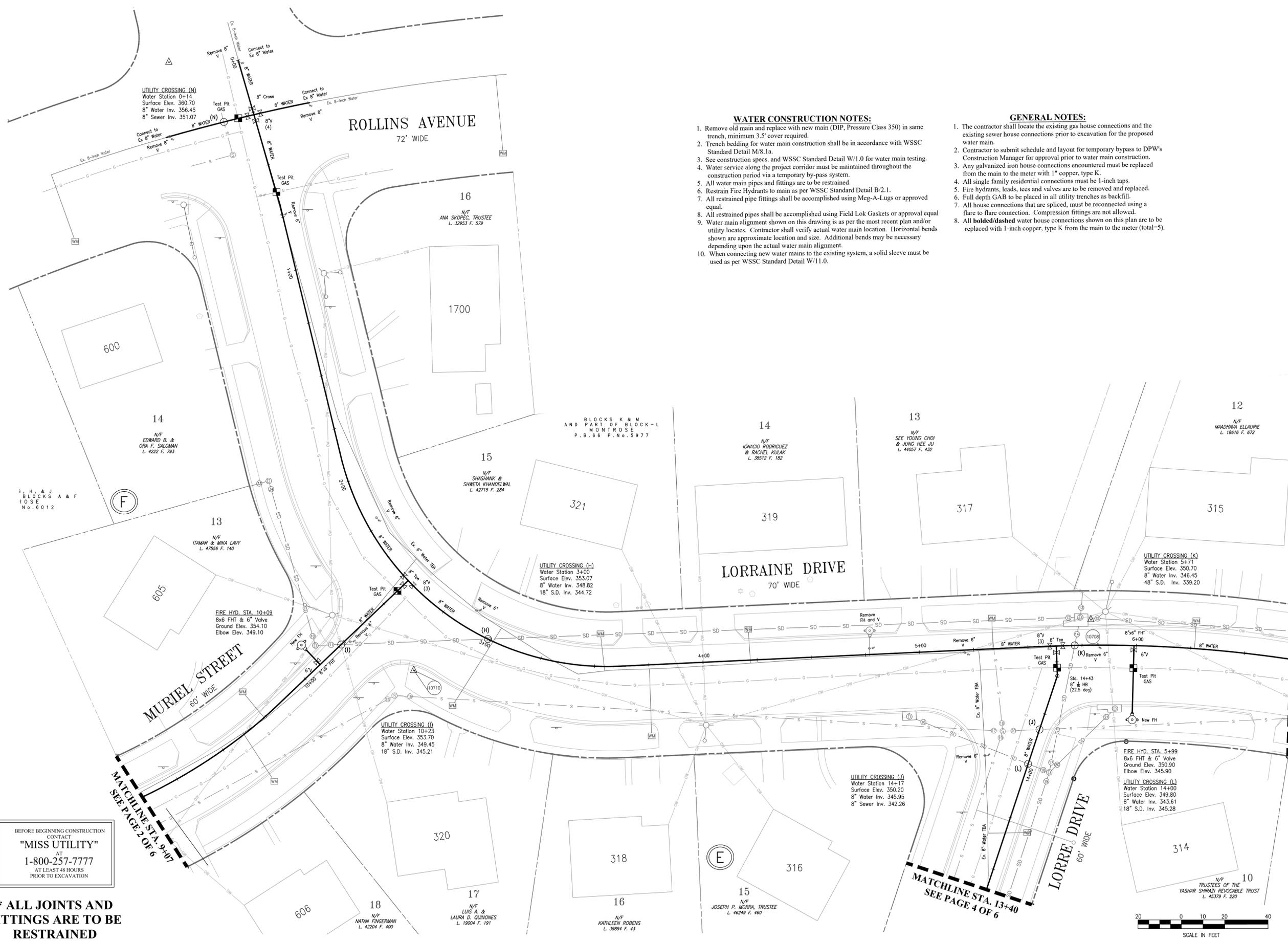
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CITY OF  
**ROCKVILLE**  
MARYLAND AT WINSON ROCKVILLE, MARYLAND

DATE PROJECT STARTED _____	AS BUILT COMPLETED _____
DATE PROJECT COMPLETED _____	DATE _____
DATE ACCEPTED BY CITY _____	CHEF, CONTRACTS MANAGEMENT _____
CITY INSPECTOR _____	

**WATER MAIN  
REHABILITATION  
PROGRAM**

**MONTROSE NEIGHBORHOOD WATER MAIN**  
City of Rockville  
Department of Public Works, Engineering Division  
Election District No. 4  
Montgomery County, Maryland

DATE: MAY 2020	SCALE: 1"=20'	SHEET NO.: 4	FILE #
		OF 6	



**WATER CONSTRUCTION NOTES:**

1. Remove old main and replace with new main (DIP, Pressure Class 350) in same trench, minimum 3.5' cover required.
2. Trench bedding for water main construction shall be in accordance with WSSC Standard Detail M/8.1a.
3. See construction specs. and WSSC Standard Detail W/1.0 for water main testing.
4. Water service along the project corridor must be maintained throughout the construction period via a temporary by-pass system.
5. All water main pipes and fittings are to be restrained.
6. Restrain Fire Hydrants to main as per WSSC Standard Detail B/2.1.
7. All restrained pipe fittings shall be accomplished using Meg-A-Lugs or approved equal.
8. All restrained pipes shall be accomplished using Field Lok Gaskets or approval equal
9. Water main alignment shown on this drawing is as per the most recent plan and/or utility locates. Contractor shall verify actual water main location. Horizontal bends shown are approximate location and size. Additional bends may be necessary depending upon the actual water main alignment.
10. When connecting new water mains to the existing system, a solid sleeve must be used as per WSSC Standard Detail W/11.0.

**GENERAL NOTES:**

1. The contractor shall locate the existing gas house connections and the existing sewer house connections prior to excavation for the proposed water main.
2. Contractor to submit schedule and layout for temporary bypass to DPW's Construction Manager for approval prior to water main construction.
3. Any galvanized iron house connections encountered must be replaced from the main to the meter with 1" copper, type K.
4. All single family residential connections must be 1-inch taps.
5. Fire hydrants, leads, tees and valves are to be removed and replaced.
6. Full depth GAB to be placed in all utility trenches as backfill.
7. All house connections that are spliced, must be reconnected using a flare to flare connection. Compression fittings are not allowed.
8. All **bolded/dashed** water house connections shown on this plan are to be replaced with 1-inch copper, type K from the main to the meter (total=5).

J. H. & J. BLOCKS A & F ROSE No. 6012

(F)

(E)

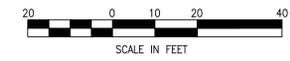
BEFORE BEGINNING CONSTRUCTION CONTACT  
**"MISS UTILITY"**  
 AT  
 1-800-257-7777  
 AT LEAST 48 HOURS  
 PRIOR TO EXCAVATION

**\* ALL JOINTS AND FITTINGS ARE TO BE RESTRAINED**

MATCHLINE STA. 6+70  
 SEE PAGE 6 OF 6

MATCHLINE STA. 9+07  
 SEE PAGE 2 OF 6

MATCHLINE STA. 13+40  
 SEE PAGE 4 OF 6



TRUSTEES OF THE YASHAR SHARAZI REVOCABLE TRUST L. 45379 F. 220

DEPARTMENT OF PUBLIC WORKS  
 CITY OF  
**ROCKVILLE**  
 MARYLAND AT WINSON ROCKVILLE, MARYLAND

DATE PROJECT STARTED \_\_\_\_\_  
 DATE PROJECT COMPLETED \_\_\_\_\_  
 DATE ACCEPTED BY CITY \_\_\_\_\_  
 CITY INSPECTOR \_\_\_\_\_

AS BUILT COMPLETED \_\_\_\_\_ DATE \_\_\_\_\_  
 CHIEF, CONTRACTS MANAGEMENT

**WATER MAIN REHABILITATION PROGRAM**

**MONTROSE NEIGHBORHOOD WATER MAIN**  
 City of Rockville  
 Department of Public Works, Engineering Division  
 Election District No. 4 Montgomery County, Maryland

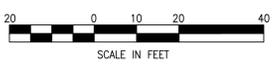
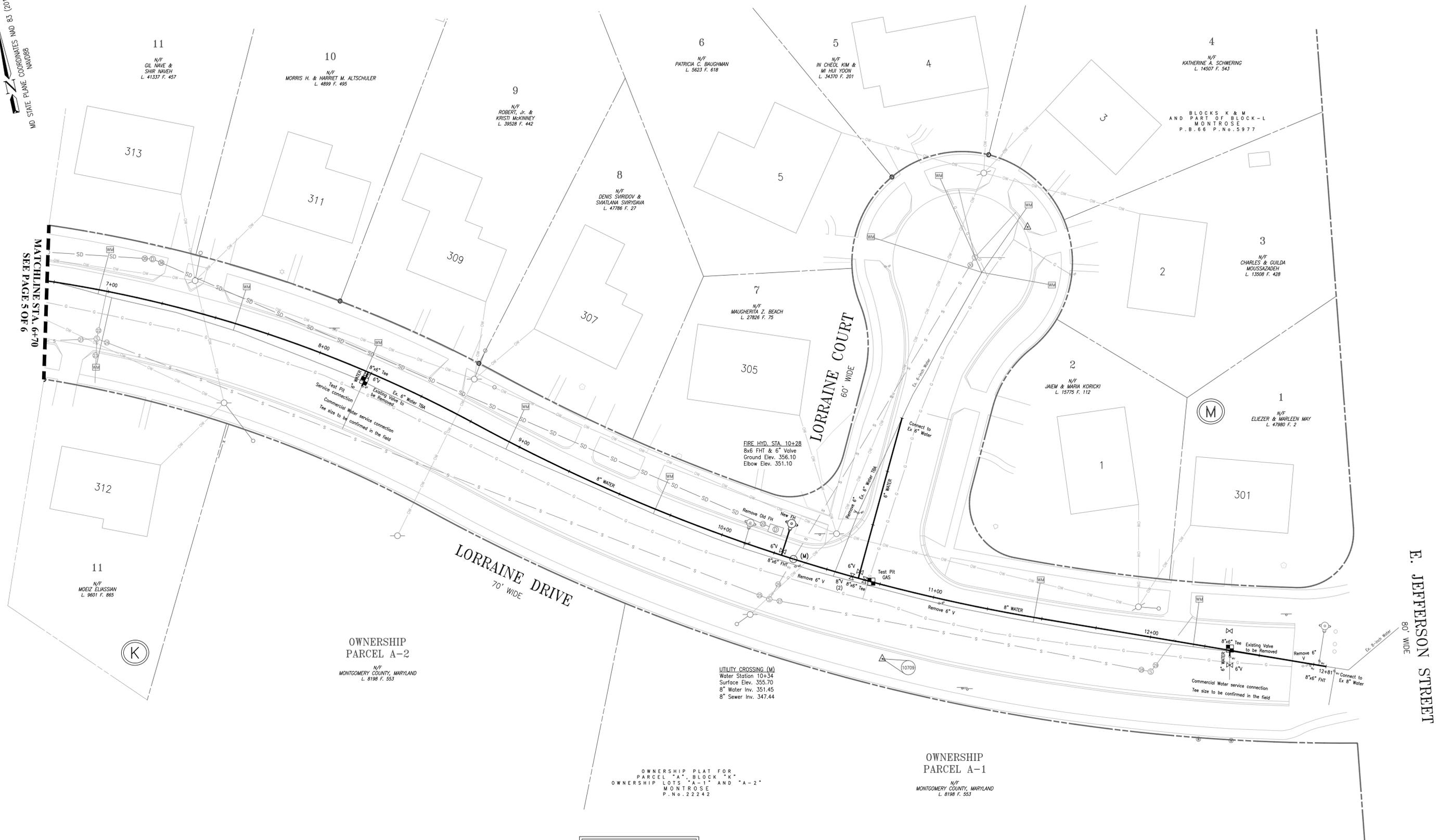
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DATE: MAY 2020	SCALE: 1"=20'	SHEET NO.: 5	FILE #
		OF 6	

SCALE: 1"=20'  
 ND STATE PLANE COORDINATES NAD 83 (2011)  
 NAD88

MATCHLINE STA. 6+70  
 SEE PAGE 5 OF 6



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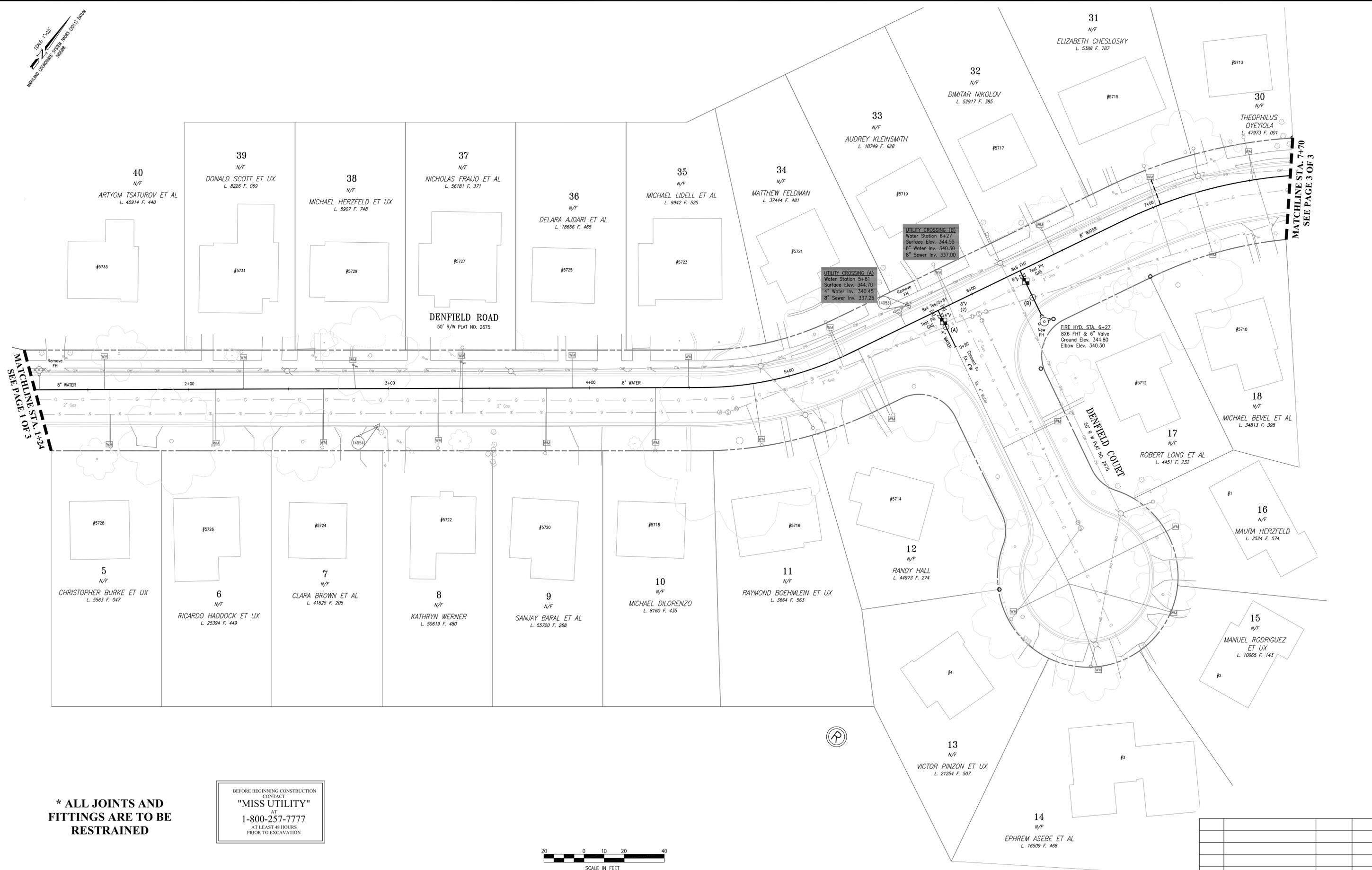
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DRAFTED _____	DIRECTOR OF PUBLIC WORKS _____		DATE PROJECT COMPLETED _____	DATE ACCEPTED BY CITY _____			CITY INSPECTOR _____	CHIEF, CONTRACTS MANAGEMENT _____	NO. OF _____	
CHECKED _____			CITY INSPECTOR _____							



SCALE: 1"=20'  
MONTGOMERY COUNTY ENGINEERING CENTER (MCEC) (001) 04/04/00

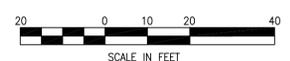


MATCHLINE STA. 1+24  
SEE PAGE 1 OF 3

MATCHLINE STA. 7+70  
SEE PAGE 3 OF 3

**\* ALL JOINTS AND FITTINGS ARE TO BE RESTRAINED**

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DEPARTMENT OF PUBLIC WORKS  
CITY OF  
**ROCKVILLE**  
MARYLAND AT VINSON ROCKVILLE, MARYLAND

DATE PROJECT STARTED _____	AS BUILT COMPLETED _____ DATE _____
DATE PROJECT COMPLETED _____	_____
DATE ACCEPTED BY CITY _____	CHEF, CONTRACTS MANAGEMENT
CITY INSPECTOR _____	171 of 220

**WATER MAIN REHABILITATION PROGRAM**

**DENFIELD ROAD WATER MAIN**  
City of Rockville  
Department of Public Works, Engineering Division  
Election District No. 4  
Montgomery County, Maryland

DATE: JANUARY 2021	SCALE: 1"=20'	SHEET NO. 2	FILE #
		OF 3	





# Maryland

## Department of the Environment

Larry Hogan, Governor  
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary  
Horacio Tablada, Deputy Secretary

### GENERAL PERMIT FOR DISCHARGES FROM TANKS, PIPES, OTHER LIQUID CONTAINMENT STRUCTURES, DEWATERING ACTIVITIES, AND GROUNDWATER REMEDATION

**GENERAL DISCHARGE PERMIT NO. 17HT**

**NPDES PERMIT NO. MDG67**

**Effective Date: August 1, 2020**

**Expiration Date: July 31, 2025**

<b>PART I. PERMIT APPLICABILITY .....</b>	<b>3</b>
A. Geographic Coverage .....	3
B. Eligible Discharges .....	3
C. Limitations on Coverage .....	4
D. No Permit Required .....	5
E. Alternative Permit Coverage .....	5
F. Continuation of an Expired General Permit.....	5
G. Related Permits .....	5
<b>PART II. AUTHORIZATION UNDER THIS PERMIT .....</b>	<b>6</b>
A. How to Obtain Authorization .....	6
B. Deadlines for Coverage .....	8
C. Required Signatures .....	9
D. Failure to Notify .....	10
E. Changes in Permit Coverage.....	10
<b>PART III. SPECIAL CONDITIONS FOR DISCHARGES .....</b>	<b>12</b>
A. Notification Requirements.....	12
B. Effluent Limitations and Monitoring Requirements .....	12
C. Narrative Requirements Applicable to All Discharges .....	13
1. Erosion and Sediment Control.....	13
2. Pollution Prevention Plan.....	13
3. Training and/or Use of Contractors.....	13
4. Use of Chemical Additives for Sediment Control .....	14
5. Visual Inspection of Discharges.....	15
<b>PART IV. MONITORING AND REPORTING .....</b>	<b>16</b>
A. Representative Sampling.....	16
B. Sampling and Analytical Methods .....	16
C. Data Recording Requirements .....	16
D. Monitoring Equipment Maintenance .....	17
E. Additional Monitoring by Permittee .....	17
F. Reporting Monitoring Results (DMRs) .....	17
<b>PART V. STANDARD PERMIT CONDITIONS .....</b>	<b>19</b>
A. Facility Operation and Maintenance .....	19
B. Submitting Additional or Corrected Information.....	19
C. Adverse Impact .....	20

*Provides discharge authorization only upon Maryland Department of the Environment notification of registration.*

D. Bypass .....	20
E. Conditions Necessary for Demonstration of an Upset.....	20
F. Removed Substances .....	21
G. Right of Entry.....	21
H. Availability of Reports .....	21
I. Permit Modification .....	21
J. Total Maximum Daily Load (TMDL) .....	21
K. Toxic Pollutants .....	21
L. Oil and Hazardous Substances Prohibited .....	21
M. Civil and Criminal Liability.....	22
N. Property Rights/Compliance with Other Requirements .....	22
O. Severability.....	22
P. Water Construction and Obstruction .....	22
Q. Compliance with this General Permit and Water Pollution Abatement Statutes .....	22
R. Action on Violations .....	22
S. Civil Penalties for Violations of Permit Conditions.....	22
T. Criminal Penalties for Violations of Permit Conditions .....	23
U. Duty to Provide Information .....	23
V. Reopener Clause for Permits .....	23
<b>PART VI. AUTHORITY TO ISSUE GENERAL NPDES PERMITS.....</b>	<b>24</b>

**Appendix A – Specific Requirements for Discharge Categories**

**Appendix B – Definitions, Abbreviations, and Acronyms**

## PART I. PERMIT APPLICABILITY

Pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland, and the provisions of the Federal Clean Water Act (CWA), 33 U.S.C. §1251 et seq. and implementing regulations 40 CFR Parts 122, 123, 124, and 125, the Maryland Department of the Environment, hereinafter referred to as the “Department”, hereby authorizes operators located in the state of Maryland, who have submitted a notice of intent (NOI) and received written approval from the Department (where applicable), to discharge wastewater from activities specified and described herein to Waters of this State in accordance with the eligibility requirements and other conditions set forth in this permit and consistent with the permittees’ NOI on file with the Department (where applicable). “You” and “Your” are used in this permit to refer to the permittee or the permit applicant, as the context indicates, and that party’s facility or responsibilities.

### A. Geographic Coverage

This permit covers discharges to surface or groundwater located within the territorial boundaries of the state of Maryland.

### B. Eligible Discharges

This permit covers the following discharges:

1. **Discharge Category A:** Wastewater from the disinfection (only disinfection agents containing bromide or chloride are authorized) or hydrostatic testing of pipes, pipelines or tanks, excluding sources from potable water systems;
2. **Discharge Category B:** Discharges from potable water systems resulting from the overflow, flushing, disinfection, hydrostatic testing, mechanical cleaning, or dewatering of vessels or structures used to store or convey potable water;
3. **Discharge Category C:** Dewatering from construction activities<sup>1</sup>;
4. **Discharge Category D:** Groundwater which has been contaminated by volatile or semi-volatile organics, including that resulting from foundation drainage, which has been treated to remove organic compounds by air stripping, air sparging, activated carbon absorption, or equivalently treated wastewater from groundwater remediation sites not covered by the General Discharge Permit of Treated Ground Water From Oil Contaminated Ground Water Sources to Surface or Ground Waters of the State;
5. **Discharge Category E:** Wastewater from draining or flushing of fire control systems;
6. **Discharge Category F:** Untreated “water” from water storage or distribution systems, including but not limited to hydrogeologic/aquifer/well head yield-testing; where the effluent flow is greater 10,000 gallons per day (as a monthly average)<sup>2</sup>;

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<sup>1</sup> Submission of a Notice of Intent is only required for discharges of uncontaminated dewatering which are not covered under another permit and are either greater than 10,000 gallons per day (as a monthly average) or require the use of chemical additives to meet water quality standards. See the section for Discharge Category C in Appendix A for further details.

<sup>2</sup> Submission of a Notice of Intent is only required for discharges of untreated “water” where the effluent flow is greater than 100,000 gallons per day (as a monthly average). See the section for Discharge Category F in Appendix A for further details.

7. **Discharge Category G:** Treated tank bottom wastewater from petroleum (i.e., gasoline, kerosene, fuel oil, 'Number 6 oil' and aviation fuel only) storage tanks to surface waters; and
8. **Discharge Category H:** Stormwater discharges from storage tank containment structures<sup>3</sup>.
9. **Other allowable discharges:** These types of discharge may be covered under this permit as ancillary discharges, but do not require coverage under this permit as standalone discharges. They are not subject to a category found in Appendix A, but should adhere to all other permit terms, particularly those in Part III.C:
  - a. water used to fight active fires (not from fire system cleaning or testing),
  - b. pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
  - c. landscape watering, only if all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
  - d. routine external wash down of buildings or other structures in the absence of detergent use and where any dislodged paint chips are filtered (so long as the wash water discharges are not influenced by process activities);
  - e. uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
  - f. irrigation drainage;
  - g. uncontaminated ground water or spring water;
  - h. foundation or footing drains where flows are not contaminated with process materials; and
  - i. emergency discharges of potable water.
10. **Use of Chemical Additives:** Use of any chemical additives for sediment control (defined in Appendix B) requires prior notice, indicating your intent to use them on your NOI and listing the additives and any pertinent associated documentation in your Pollution Prevention Plan. In addition, the use of additives for sediment control is subject to the Department's approval policy as outlined in Part III.C.4 of this permit. Any substances not approved by the Department are prohibited.

### C. Limitations on Coverage

The following discharges are not eligible for coverage under this general permit:

1. Discharges of any type from oil terminals;
2. Tank bottom wastewater discharges to groundwater of the state;
3. Wastewater from the washing of the interior of chemical and/or petroleum storage tanks, pipes and pipelines; and
4. Wastewater discharges to groundwater that, before treatment, contain concentrations of benzene, lead, or other substances in excess of Toxicity Characteristic Leaching Procedures (TCLP) concentrations as defined in COMAR 26.13.02.14.

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<sup>3</sup> Unless specifically directed by the Department, facilities containing no other source of discharges which require coverage under this general permit OR an NPDES permit for industrial stormwater are not required to obtain permit coverage for stormwater discharges from aboveground tank containment structures. See the section for Discharge Category H in Appendix A for additional details.

**D. No Permit Required**

No discharge permit is required for the discharge of water from impoundments formed by the damming of natural drainage paths, or for the discharge of any untreated "waters" (see Appendix B for definition) less than 10,000 gallons per day (unless specifically directed by the Department to obtain coverage). No discharge permit is required for discharge of stormwater or groundwater from collection devices such as vaults, manholes, and conduit so long as such discharges have not been impacted by other activities ongoing at the site.

**E. Alternative Permit Coverage**

The Department may require you to obtain, or you may also request, coverage under an individual permit or registration under another general permit (such as those identified in Part I.G) for reasons including, but not limited to, those described below. If the Department requires you to apply for and obtain an alternative permit and you do not comply, the Department may terminate your coverage under this permit. Permit termination shall be effective at the end of the day that the Department specified as a deadline for the application or Notice of Intent (NOI) to be submitted. After the date of termination, any discharges that were previously covered by this permit are no longer authorized and may be subject to enforcement action.

1. If the Department determines that a discharge may cause water quality standards to be exceeded in the receiving water, then the Department may require additional actions which may include the submission of an individual NPDES discharge permit application. The Department may process an NOI for this permit as an application for an individual permit if the information submitted is deemed sufficient.
2. If site specific conditions, such as proposed discharge(s) to impaired waters or high quality waters, do not allow the facility to be covered under the general permit without compromising water quality, an individual permit may be required.
3. You may request to be excluded from coverage under this permit by applying for an individual state or NPDES discharge permit or submitting an NOI for coverage under another general permit. The Department may grant your request if the Department determines your reasons are adequate. If you are issued an individual NPDES permit or apply for coverage under an industry-specific general permit, the Department may terminate your coverage under this permit.

**F. Continuation of an Expired General Permit**

Unless your permit or authorization is revoked or terminated by the Department, the terms and conditions of this permit and its authorized dischargers are automatically continued and remain fully effective and enforceable upon expiration of this permit until the date(s) specified under a reissued general permit.

**G. Related Permits**

1. Construction activities which result in a land disturbance of greater than one acre must obtain coverage under the General Permit for Stormwater Associated with Construction Activities (NPDES Permit Number MDRC, State Permit Number 14GP or its successor), which may include authorization to discharge water from uncontaminated construction dewatering. Information regarding this permit can be found on the MDE website at <https://mdewwp.page.link/CGP>. If the proposed dewatering activities are not eligible for coverage under that permit, you must obtain coverage under Discharge Category C/D

of this permit or an individual permit.

2. Any person or facility which stores 10,000 gallons or more of oil intended to be used as a motor fuel, lubricant, or fuel source in above ground tanks, who stores 1,000 gallons or more of used oil, which transports oil in or out of Maryland or which operates an oil transfer facility must obtain an Oil Operations Permit. Information regarding the Oil Control Program can be found on the MDE website at <https://mdewwp.page.link/OCPPermits>.
3. Tank bottom discharges to groundwater of the State must be regulated by an individual groundwater discharge permit. Information regarding groundwater permits can be found on the MDE website at <https://mdewwp.page.link/GWDP>.
4. Discharges of treated groundwater which has been impacted only by oil sources (not other volatiles such as TCE, TCA, DCE, etc.) are covered by the Department's General Permit for the Discharge of Treated Ground Water from Oil Contaminated Ground Water Sources to Surface or Ground Waters of the State, which is implemented by MDE's Oil Control Program. Information regarding this permit can be found on the MDE website at <https://mdewwp.page.link/OCPPermits>.
5. If water used is obtained from surface or groundwaters of the State, you may require a water appropriation permit from the Department. For information regarding appropriations permits and/or to determine if you require one, consult the Department's Water Supply Program, found on the MDE website at <https://mdewwp.page.link/Appropriations>.

## **PART II. AUTHORIZATION UNDER THIS PERMIT**

### **A. How to Obtain Authorization**

#### **1. Notice of Intent (NOI) and Transfer Requests**

##### **a. Notice of Intent (NOI)**

You must complete all information required on this permit's corresponding NOI form (MDE-WMA-PER011), or an equivalent electronic form provided by the Department. Detailed instructions are included on the NOI form. If you operate multiple facilities you must submit an NOI for each noncontiguous site or attach a list of sites which fit the same description as the facility on the original NOI (particularly for large distribution systems). Requiring multiple permits/NOIs for separate sites shall be at the Department's discretion on a case-by-case basis.

When submitting paper forms, a signed copy of the NOI and the required fee, made payable to the Maryland Department of the Environment, must be submitted to the following address:

Maryland Department of the Environment  
P.O. Box 2057  
Baltimore MD 21203-2057

You are required to provide the following information on the appropriate NOI form:

- *Owner or Operator Information:* company name, facility contact, telephone number, email address, mailing address, IRS Employer Identification Number (EIN) and Worker's Comp Insurance carrier and policy number.
- *Facility Information:* name of facility, location, including physical address and coordinates in degrees decimal; selection of new or renewal permit and previous 11HT permit number (if applicable), identification of any other NPDES permits for the facility,
- *Discharge Information:* You must identify:
  - *Water characteristics:* Discharge Category(ies) and any applicable associated information (e.g. cleaning methods, disinfection, etc.), estimated volume, frequency, and duration
  - *Receiving Waters:* groundwater or surface water; *if surface water:* name of receiving stream, identification of designated use class and whether they qualify as Tier II waters, and coordinates in degrees decimal for each outfall.
- *Chemical Additives:* identification of any additives proposed for use, proposed dosing rates, and whether they are anionic or cationic (see Part III.C.4 for more information on the process for additive approval)
- *Permit Fee:* selection of applicable permit fee
- *Certification:* printed name, title, and signature of signatory and date. If the person who prepared the NOI is different from the facility contact, you shall attach the preparer's name, phone number, and email address to the NOI.

You must also attach a site map to the NOI. The map should identify the outfall(s) and/or facilities associated with discharges. The map should provide significant points of reference (i.e. roads, buildings, etc.) near each point of discharge and identify all surface waters within a quarter mile of the discharge location(s). For publicly owned potable water systems, you may provide a map of the entire system bounded by the community with identification of all major discharge points (e.g. storage tanks, wells, etc.). All outfall locations should correspond to those identified on the NOI. The Department may use discretion in determining specific map requirements as needed on a case-by-case basis.

For hydrostatic testing and potable water system discharges, you must include an approximate schedule of discharges (if available) and contact information for a responsible party who can provide updated scheduling information upon request.

For discharges of non-contaminated construction dewatering, you may be asked to submit groundwater testing data which exhibits no contamination or an environmental assessment which indicates there is no reasonable expectation for contamination.

For groundwater remediation, you will be required to either indicate the source of the contamination and/or submit testing results of the untreated groundwater so the Department can identify appropriate limitations for your registration.

**b. Transfer of Authorization.**

For transfer of ownership, you can complete the Permit Transfer Request Form for General NPDES Permits found on the Department's website at <https://mdewwp.page.link/GPXferForm>. Detailed instructions are included with the form. If you are the owner or operator of multiple permits, you must submit a separate Permit Transfer Request Form for each permit you wish to transfer. The authorization under this permit is not transferable to any person except in

accordance with this section. Authorization to discharge under this permit may be transferred to another person if:

- The current permittee notifies the Department in writing of the proposed transfer.
- A written agreement, indicating the specific date of the proposed transfer of permit coverage and acknowledging the responsibilities of the current and new permittee for compliance with the terms and conditions of this permit, is submitted to the Department.
- The new permittee either confirms in writing that the type of discharge, number of outfalls, and other information given on the original NOI remain correct or updates this information.
- Neither the current permittee nor the new permittee receives notification from the Department, within 30 days of receipt of items above, of intent to terminate coverage under this permit.

## 2. Permit Fee

- a. Pursuant to COMAR 26.08.04.09-1(G), persons who intend to obtain coverage under this general permit are subject to an initial permit fee (submitted with the NOI) and an annual fee each additional year the permit is held (billed annually by the Department). Since permittees who are renewing their permit will already be subject to billing for the annual fee for the calendar year of permit issuance, the initial fee for renewals shall be the difference between the “one year fee” and “fee each additional year” as defined in COMAR 26.08.04.09-1(G).
- b. To pay the initial permit fee by check, it must be made payable to the Maryland Department of the Environment and sent with the completed NOI as instructed in Part II.A.1.a of this permit.
- c. If you pay the initial permit fee by a check that does not clear for any reason, you will have 30 calendar days to make proper payment, including any interest and other charges. If payment is not received by the 31st calendar day, your coverage under this permit must be considered void from the outset. You should save the cancelled check, a copy of the completed NOI, and the letter confirming your authorization from the Department. These documents must be provided to the Department upon request.
- d. A new owner of a facility as a result of a transfer of ownership is responsible for any fees unpaid by the former owner.
- e. Any changes in operations that may increase fees are required to give notice as described in Part II.E.1.c.

## **B. Deadlines for Coverage**

You will be in violation of state and federal requirements to obtain a permit and subject to enforcement action by the Department if you fail to submit an NOI and fee payment or a transfer request in a timely manner as provided in the following table. Late NOIs will be accepted, but authorization to discharge will not be retroactive.

<b>Category</b>	<b>Coverage Submittal Deadline</b>
<i>Existing Dischargers</i> – in operation as of the effective date of this permit and previously authorized for coverage under 11-HT	Within 6 months after the effective date of this permit. Authorization to discharge under 11-HT continues in the interim.
<i>New Dischargers or New Sources</i>	A minimum of 60 days prior to commencing discharge.
<i>New Owner/Operator of Existing Discharger</i> - transfer of ownership and/or operation of a facility whose discharge is authorized under this permit	A minimum of 30 days prior to date that the transfer will take place to the new owner/operator.
<i>Other Eligible Dischargers</i> – in operation prior to permit effective date, but not covered under the 11-HT or another NPDES permit.	Immediately, to minimize the time discharges from the facility will continue to be unauthorized.

**C. Required Signatures**

**1. Certification**

Any person signing documents in accordance with Parts II.C.2 and II.C.3 of this permit must include the following certification:

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

**2. Signatories**

All applications, including NOIs, transfer requests, and No Exposure Certifications must be signed by a Signatory as follows:

- a. *For a corporation:*** By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
  - i.)** a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or
  - ii.)** the manager of one or more properties belonging to the owner, provided the manager is authorized to make management decisions which govern the operation of the regulated facility having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

- b. *For a partnership or sole proprietorship:* By a general partner or the proprietor, respectively
- c. *For a municipality, State, Federal, or other public agency:* By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
  - i.) the chief executive officer of the agency; or
  - ii.) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of the EPA).

### 3. Report Submission

- a. All reports required by permits, and other information requested by the Department shall be signed by a person described in Part II.C.2 of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - i.) The authorization is made in writing by a person described in Part II.C.2;
  - ii.) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company; and
  - iii.) The written authorization is submitted to the Department.
- b. If an authorization under this subsection is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II.C.3.a of this permit must be submitted to the Department prior to or together with any reports, information or applications to be signed by an authorized representative.

### D. Failure to Notify

If you (1) engage in an activity covered under this permit, (2) fail to notify the Department of your intent (Part II.A) to be covered under this permit within the deadlines established in this permit (Part II.B), and (3) discharge to waters of the state without an individual NPDES discharge permit, then you are in violation of the Federal Clean Water Act and of the Environment Article, Annotated Code of Maryland, and may be subject to penalties.

### E. Changes in Permit Coverage

Certain planned changes in stormwater discharge or termination of permit coverage, both described below in this section, require notification to the Department's Wastewater Permits Program at this address:

Maryland Department of the Environment  
Wastewater Permits Program  
1800 Washington Blvd, Ste 455  
182 of 229

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Baltimore, MD 21230

**1. Changes in Discharge**

- a.** All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit at a level in excess of that authorized shall constitute a violation of the terms and conditions of this permit. You must submit a revised NOI to the Department if there are anticipated facility expansions, additional or relocated outfalls, or facility modifications which will result in new categories of discharge, change in potential pollutants, or increased concentrations of pollutants. The revised NOI should be submitted a minimum of 90 days prior to commencement of the changed discharges.
- b.** Based upon its evaluation of the revised NOI, the Department may:
- i.)* Continue to authorize the discharge under your current registration, or
  - ii.)* Issue a modification to your registration under this permit, or
  - iii.)* Require you to apply for an individual permit
- c.** Facility changes which have not altered or will not alter the type or quality of the discharge, but alter the average daily discharge volume do not require submission of a revised NOI, unless specifically requested by the Department. You must provide written notice of any volume change which has occurred or will occur if it corresponds with an increase of the annual permit fee pursuant to COMAR 26.08.04.09-1(G). Facilities with a flow exceeding one million gallons per day must submit a written update any time their flow increases by 25% or greater.

**2. Termination of Permit Coverage**

**a. Submitting a Notice of Termination**

To terminate permit coverage, you must submit a complete and accurate Notice of Termination (NOT), found at <https://mdewwp.page.link/GPNOT>, to the Wastewater Permits Program. Your authorization to discharge under this permit terminates at midnight of the day that a complete Notice of Termination is processed and acknowledged by the Department. If you submit a Notice of Termination without meeting one or more of the conditions identified in Part II.E.2.b of this permit, then your Notice of Termination is not valid. You are responsible for meeting the terms of this permit until your authorization is terminated.

**b. When to Submit a Notice of Termination**

You must submit a Notice of Termination within 30 days after one or more of the following conditions have been met:

- i.)* All discharges at your facility that are covered by your registration under this permit have permanently ceased; or

- ii.)* For Discharge Category H, all product has been permanently removed from storage tanks and any residual contamination in the containment structure has been removed; or
  - iii.)* You move your operation to a new location (after submitting an NOT you must then apply for coverage at the new location per Part II.A through II.C of this permit); or
  - iv.)* A new owner or operator has taken over responsibility for the facility; or
  - v.)* You have obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit, unless the Department has required that you obtain such coverage under Part I.E, in which case coverage under this permit will terminate automatically.
- c. The Department may terminate your coverage under this general permit if the Department finds good cause to do so.

## **PART III. SPECIAL CONDITIONS for DISCHARGES**

### **A. Notification Requirements**

#### **1. Notification for Large Discharges**

If the total wastewater discharge from any single discharge event will exceed 100,000 gallons within a 24-hour period, you shall notify the Water and Science Administration's Compliance Program by phone at 410-537-3510 no later than 48 hours prior to the first discharge. For unanticipated discharges (e.g. water main breaks) which exceed or are expected to exceed 100,000 gallons, notification shall be provided as soon as possible.

#### **2. Notification of the Discharge of a Pollutant Not Limited in This Permit**

You shall notify the Department as soon as it is known or suspected that any toxic pollutants which are not specifically limited by this permit have been discharged at or above levels specified in 40 CFR Part 122.42. This notification requirement may be modified by the Department at its discretion.

#### **3. Submittal of Notifications**

All notifications shall be made to the Water and Science Administration Compliance Program at 410-537-3510 or, where permissible, in writing to:

Maryland Department of the Environment  
WSA – Compliance Program  
1800 Washington Blvd., Suite 425  
Baltimore, MD 21230

### **B. Effluent Limitations and Monitoring Requirements**

Discharges which are permitted by this permit have been categorized by type, as specified in Part I.B. Numerical limits, monitoring requirements, and narrative criteria which apply specifically to one category of discharge have been outlined in Appendix A. Once your

registration is approved for discharges under a given Discharge Category, you must follow all terms of this permit, including those presented in each applicable section of Appendix A. Applicable technology-based limits for each discharge category must be met prior to dilution/commingling with a discharge from a different category.

### **C. Narrative Requirements Applicable to All Discharges**

#### **1. Erosion and Sediment Control**

You must minimize erosion a) consistent with the facility's approved erosion and sediment control (E&SC) plan or b) by stabilizing exposed soils at your facility in order to minimize pollutant discharges and placing flow velocity dissipation devices at discharge locations to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points. Any gulying greater than six inches in depth should be considered excessive erosion. These requirements include timeframes for the temporary and permanent stabilization of all inactive, disturbed areas; which are either identified on your E&SC plan or if you don't have an approved E&SC plan, stabilization is to be completed within three (3) calendar days for perimeter sediment controls and slopes steeper than 3:1 and seven (7) calendar days for all other areas not under active grading. You must also use structural and non-structural control measures to minimize the discharge of sediment. In selecting, designing, installing, and implementing appropriate control measures, you are encouraged to consult with the Department's Soil Erosion & Sediment Control resources (<https://mdewwp.page.link/ESCRegs>).

#### **2. Pollution Prevention Plan**

You must develop a Pollution Prevention Plan (PPP) for any discharges which are subject to numeric effluent limitations, may pollute via erosion (discharge across land), or have a reasonable potential to cause an in-stream exceedance of a water quality standard. The PPP must include a description of any means of wastewater treatment (including a list of any chemical additives and corresponding Safety Data Sheets, if applicable), instructions on operation of the treatment system, a description of any erosion and sediment controls (if not already required by an E&SC plan), and any other information relative to pollution prevention specific to your site.

You are responsible for keeping the plan current, including identifying any lapses in pollution controls, responses to any exceedances, and changes to the overall process, if applicable. An updated copy of the PPP must be kept on site and made available upon request of any Department personnel.

#### **3. Training and/or Use of Contractors**

It is the responsibility of the permittee to ensure that the personnel who is working on the site where discharges are occurring are trained properly in implementation of the PPP. Training records should be maintained by the permittee to document as such.

Should the permittee desire to hire a contractor to perform any such work, it is at the discretion of the permittee as to whether to allow said contractor to operate under the terms of the permittee's registration under this permit or to require said contractor to obtain a separate registration. Should the permittee allow a contractor to operate under the permittee's registration, it is the permittee's responsibility to train said contractor on proper implementation of the PPP and make said contractor aware of all

permit requirements. Terms of which registration a contractor is operating under should be clear in any agreement between parties.

#### 4. Use of Chemical Additives for Sediment Control

If you are using chemical additives (defined in Appendix B) for control of sediment (such as polymers or flocculants) at your site, you must comply with the requirements identified in this section. You shall refer to the most current version of *Standards for Use of Chemical Additives for Sediment Control* document available on the Department's website at <https://mdewwp.page.link/ChemAddStandards> for specific instructions on information which must be included in your PPP, additional requirements, and assistance in applying for additive use.

- The use of chemical additives for sediment control should only be considered in the event that water quality standards cannot be met using conventional best management practices.
- Should the use of chemical additives be necessary, you must utilize conventional best management practices for erosion and sediment controls prior to and after the application of chemical additives.
- Additives may only be applied where treated stormwater is directed to a sediment control (e.g., sediment basin, perimeter control) prior to discharge. This permit intends to authorize additives used to create flocculation of suspended materials in stormwater or groundwater.
- Chemical additives must be approved by the Department prior to use. The Department maintains a current list of pre-approved polymers/flocculants including approved application method and maximum allowable dosage concentration or application rate on its website (<https://mdewwp.page.link/MDFlocs>).
- If you wish to use a chemical additive which is not found on the approved list, you must request approval according to *Procedures for Review of Chemical Additives for Sediment Control* (<https://mdewwp.page.link/ChemAddReview>). You may not begin use of any chemical additive absent from the pre-approved list until you receive express written approval for that additive from the Department.
- You are required to identify all additives you will be using on your Notice of Intent (pursuant to Part II.A.1 of this permit). Any initial approval of additives shall be expressly identified in your permit registration letter and you may not commence use of additives absent such approval.
- If you wish to change or add another preapproved anionic chemical, you shall provide notification to the Industrial and General Permits Division within 30 days of commencing the use of the new pre-approved additive. If you wish to change or add another preapproved cationic chemical, you must obtain express written approval for that specific cationic additive prior to use.
- You must minimize exposure of stored chemicals to stormwater.
- You must comply with relevant local requirements affecting the use of chemical additives. If requested by the E&SC plan approval authority, provide an SDS

with your E&SC plan.

- You must use chemical additives and chemical treatment systems in accordance with good engineering practices, and with dosing specifications and sediment removal design specifications provided by the provider/supplier of the applicable chemicals, or document specific departures from these practices or specifications and how they reflect good engineering practice. Selection of additives and dosing rates should be determined based on site-specific test results. Documentation of the chemical selection process and dosing rate determination shall be included in your PPP. Dosing rates cannot exceed those found on the Department's list of pre-approved additives.
- Ensure that all persons who handle and use chemical additives at the site are provided with appropriate, product-specific training. Among other things, the training must cover proper dosing requirements and safe handling practices.
- If you plan to use cationic chemical additives (as defined in Appendix B), you are ineligible for coverage under this permit unless you notify the Department's Industrial and General Permits Division at least 30 days in advance and the Department authorizes coverage under this permit. To receive authorization under this permit, you must identify in your PPP appropriate controls and implementation procedures (including where the chemical is applied, description of active treatment systems required, dosing, filtering, pH monitoring, etc.) designed to ensure that your use of cationic additives chemicals will not lead to a violation of water quality standards. See the *Standards for Use of Chemical Additives for Sediment Control* document (<https://mdewwp.page.link/ChemAddStandards>) for additional instructions for completing your PPP and requesting use of cationic chemical additives. A copy of the PPP section regarding use of cationic chemical additives must be submitted along with the NOI and *Request for Use of Cationic Chemical Additives* form (<https://mdewwp.page.link/CationicForm>). You are required to comply with all such requirements if you have been authorized to use cationic chemicals at your site by the Department.
- Depending on the additive selected for use, you may be required to sample discharges and test for residuals or other components. Any such monitoring requirement will be laid out in your registration letter. Results of required monitoring shall be maintained with the PPP and made available if requested by Department personnel.

Authorization is conditioned on your compliance with additional requirements necessary to ensure that the use of such chemicals will not cause an exceedance of water quality standards. If you use polymers and/or other chemical treatments as part of your controls, you must identify the polymers and/or chemicals used and the purpose in your PPP.

##### 5. Visual Inspection of Discharges

You shall visually inspect discharges as frequently as possible, but a minimum of once daily when discharges are occurring. You shall log results of visual monitoring events in the PPP. The Department maintains a standard form for logging of visual monitoring on its website at <https://mdewwp.page.link/VisualForm>. Discharges of oil sheen, floating solids, visible plumes of sediment or color, and/or persistent foam are

prohibited and shall be reported to the Water and Science Administration Compliance Program, pursuant to Part IV.H.1 of this permit.

#### **D. Tier II Antidegradation Requirements for New or Increased Dischargers**

If you are a new discharger, have increased your discharge volumes from previous permit registration(s), or are required to notify the Department of a modified discharge (Part II.E.1), and you discharge directly to waters designated by the State as Tier II for antidegradation purposes under 40 CFR 131.12(a), the Department may notify you that additional analyses, control measures, or other permit conditions are necessary to comply with the applicable antidegradation requirements, or notify you that an individual permit application is necessary in accordance with Part I.E of this permit.

## **PART IV. MONITORING and REPORTING**

### **A. Representative Sampling**

#### **1. Sample Collection**

Required samples and measurements shall be taken at such times as to be representative of the quantity and quality of the discharges during the specified monitoring periods. Where effluent authorized by this general permit mingles with other permitted discharges of wastewaters or waters, the time and place of sampling shall be chosen to uniquely represent the effluent authorized by this permit.

#### **2. Flow Estimation**

If flow measurement equipment is not present at a given outfall, you may estimate flows and submit the following information with the corresponding discharge monitoring report:

- a. a description of the methodology used to estimate flow (for each applicable outfall);
- b. documentation appropriate to the methodology utilized which provides information necessary to support the validity of the reported flow estimate. If actual measurements or observations are made, a description of typical sampling times, locations, and persons performing the measurements/observations should be provided; and
- c. a description of the factors (e.g. batch discharges, intermittent operation, etc.) which cause flow at the outfall to fluctuate significantly from the estimate provided.

### **B. Sampling and Analytical Methods**

The sampling and analytical methods used shall conform to procedures for the analysis of pollutants as identified in 40 CFR 136 - "Guidelines Establishing Test Procedures for the Analysis of Pollutants" unless otherwise specified.

### **C. Data Recording Requirements**

For each sample taken to satisfy requirements of this permit, you must record the following information:

1. The exact place, date, and time of sampling or measurement;
2. The person(s) who performed the sampling or measurement;
3. The dates and times the analyses were performed;
4. The person(s) who performed the analyses;
5. The analytical techniques or methods used; and
6. The results of all required analyses.

#### **D. Monitoring Equipment Maintenance**

You must periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation to insure accuracy of measurements.

#### **E. Additional Monitoring by Permittee**

If you choose to monitor any pollutant more frequently than required by this permit, you shall use approved analytical methods as specified in Part IV.B of this permit, and shall report the results of such monitoring, including the increased frequency, in the calculation and reporting of the values as specified in Part IV.F of this permit (for parameters which reporting is already applicable under that section)..

#### **F. Reporting Monitoring Results (DMRs)**

This section is only applicable if you are subject to numerical limits or monitoring (including "REPORT" parameters) or submission of reports/documents which the Department specifies are to be submitted as attachments to DMRs.

##### **1. Discharge Monitoring Reports (DMRs) Submitted via NetDMR**

Unless a different reporting mechanism is specified, you must submit all monitoring results electronically using NetDMR once you are granted access to this tool, unless you demonstrate a reasonable basis that precludes the use of NetDMR. Specific requirements regarding submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

- a. NetDMR is a U.S. EPA tool allowing regulated Clean Water Act permittees to submit monitoring reports electronically via a secure Internet application. You must apply for access to NetDMR at [www.epa.gov/netdmr](http://www.epa.gov/netdmr) and register for a NetDMR Webinar. Before you can submit official DMRs using NetDMR, you must attend a training Webinar and successfully set-up and submit test monitoring results electronically. You must complete all requirements to gain access to NetDMR within one (1) month of authorization under this permit.
- b. You may be eligible for a temporary waiver by MDE from NPDES electronic reporting requirements if the permittee has no current internet access and is physically located in a geographic area (i.e., zip code) that is identified as under-served for broadband internet access in the most recent National Broadband Map from the Federal Communications Commission (FCC); or if the permittee can demonstrate that such electronic reporting of the monitoring data and reports would

pose an unreasonable burden or expense to the NPDES-permitted facility. Waiver requests must be submitted in writing to the Department for written approval at least 120 days prior to the date the permittee would be required under this permit to begin using NetDMR. This demonstration shall be valid for one (1) year from the date of the Department approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to the Department unless the permittee submits a renewed waiver request and such request is approved by the Department. The application form for a waiver from electronic reporting requirements can be found at <https://mdewwp.page.link/eReportWaiver>. All subsequent hardcopy DMRs shall be sent to the following address:

Attention: DMRs  
Maryland Department of the Environment  
WSA – Compliance Program  
1800 Washington Blvd., Suite 425  
Baltimore, MD 21230-1708

- c. You must report the data at least quarterly, with submissions received no later than 28 days following the final month of the given quarter (March, June, September, or December).
- d. At a minimum, each category of discharge shall be assigned its own “Outfall Number” for simple tracking. If one category of discharge is planned to occur across several locations, monitoring shall occur at each discharge (as specified in the appropriate category in Appendix A), with the absolute maximums, minimums, and averages reported as a single Outfall Number. Individual monitoring results shall be included as an attachment to each submission in NetDMR and shall also document the time, date, and location of each discharge.

For example, if you are performing hydrostatic testing of new piping at five different locations in the course of a quarter, you shall complete the required monitoring for Discharge Category A in Appendix A at each event (flow, TSS, pH). On your quarterly DMR, you will report the maximum and average flows in gallons per day, the maximum TSS concentration in mg/L, and the minimum and maximum pH as measured across all five events for that quarter. Then, you shall include an attachment to the quarterly DMR which includes monitoring results for flow, TSS, and pH for each of the five individual events – and this attachment shall also specify date, time, and location of each individual event.

## 2. Laboratory Identification

You shall submit the name and address of any laboratory which you use to perform analyses (including your own laboratory, if applicable) as an attachment to your first DMR submission. If you change or add laboratories during the permit term, the Department shall be notified by attaching a letter identifying the change with the ensuing DMR submission.

## G. **Records Retention**

You must retain all records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, calibration and maintenance of instrumentation, and original recordings from continuous monitoring instrumentation, for a minimum of five (5) years. This period shall be extended automatically during the course of litigation, or when requested by the Department.

## H. Non-compliance with Discharge Limitations

The discharge of any pollutant identified in this permit at a level in excess of the level authorized shall constitute a violation of the terms and conditions of this permit.

1. If, for any reason, you do not comply with or will be unable to comply with any of the effluent limitations in this permit, you shall notify, within 24 hours of discovery of the noncompliance, the Water and Science Administration Compliance Program at:

Maryland Department of the Environment  
WSA – Compliance Program  
1800 Washington Boulevard, Suite 420  
Baltimore MD 21230  
Phone: (410) 537-3510 Fax: (410) 537-4883

2. Within five calendar days, you shall provide the Department with the following information in writing at the above address:
  - a. A description of the noncompliant discharge, including the date and time of its occurrence and its impact on the receiving water;
  - b. The cause of the noncompliance;
  - c. The anticipated time the cause of the noncompliance is expected to continue, or, if the condition has been corrected, the duration of the period of the noncompliance;
  - d. Steps taken by the permittee to eliminate the noncompliant discharge;
  - e. Steps planned and implemented by the permittee to prevent the recurrence of the noncompliance; and
  - f. A description of the permittee's accelerated or additional monitoring to determine the nature and impact of the noncompliant discharge.
3. You shall take all reasonable steps to minimize or prevent any adverse impact to the waters of this state or to human health from noncompliance with any effluent limitations specified in this permit.

## PART V. STANDARD PERMIT CONDITIONS

### A. Facility Operation and Maintenance

You must at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used to achieve compliance with the conditions of the permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or a similar system that you have installed only when the operation is necessary to achieve compliance with the conditions of the permit.

### B. Submitting Additional or Corrected Information

When you become aware that you failed to submit any relevant facts or submitted incorrect information in the NOI or in any other report to the Department, you must submit the facts or information to the Department within 30 days.

### **C. Adverse Impact**

The permittee shall take all reasonable steps to minimize or prevent any adverse impact to waters of the State or to human health resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

### **D. Bypass**

Any bypass of treatment facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited unless:

1. the bypass is unavoidable to prevent a loss of life, personal injury or substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources;
2. there are no feasible alternatives;
3. notification is received by the Department within 24 hours (if orally notified, then followed by a written submission within five calendar days of the permittee's becoming aware of the bypass). Where the need for a bypass is known (or should have been known) in advance, this notification shall be submitted to the Department for approval at least ten calendar days before the date of bypass or at the earliest possible date if the period of advance knowledge is less than ten calendar days; and
4. the bypass is allowed under conditions determined by the Department to be necessary to minimize adverse effects.

### **E. Conditions Necessary for Demonstration of an Upset**

An upset shall constitute an affirmative defense to an action brought for noncompliance with technology-based effluent limitations only if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence, that:

1. an upset occurred and that the permittee can identify the specific cause(s) of the upset;
2. the permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;
3. the permittee submitted a 24-hour notification of upset in accordance with the reporting requirements of Corrective Actions above;
4. the permittee submitted, within five (5) calendar days of becoming aware of the upset, documentation to support and justify the upset; and
5. the permittee complied with any remedial measures required to minimize adverse impact.

**F. Removed Substances**

Wastes such as solids, sludges, or other pollutants removed from or resulting from treatment or control of wastewaters or facility operations, must be disposed of in a manner to prevent any wastes or runoff from wastes from contacting waters of the State.

**G. Right of Entry**

You must permit the Secretary of the Department, the Regional Administrator for the EPA, or their authorized representatives, upon the presentation of credentials, to:

1. enter upon your premises where a discharges' source is located or where any records are required to be kept under the terms and conditions of this permit;
2. access and copy, at reasonable times, any records required to be kept under the terms and conditions of this permit;
3. inspect, at reasonable times, any monitoring equipment or monitoring method required in this permit;
4. inspect, at reasonable times, any collection, treatment, pollution management, or discharge facilities required under this permit;
5. sample, at reasonable times, any discharge of pollutants; and
6. take photographs (which may require direction for reasons of national security).

**H. Availability of Reports**

Except for data determined to be confidential under the Maryland Public Information Act and/or Section 308 of the Clean Water Act, 33 U.S.C. § 1318, all submitted data must be available for public inspection at the offices of the Department and the Regional Administrator of the Environmental Protection Agency.

**I. Permit Modification**

The Department may revoke this permit or modify this permit to include different limitations and requirements, in accordance with the procedures contained in COMAR 26.08.04.10 and 40 C.F.R. §§ 122.62, 122.63, 122.64 and 124.5.

**J. Total Maximum Daily Load (TMDL)**

The permit may be reopened in accordance with Maryland's Administrative Procedures Act to incorporate future Total Maximum Daily Load requirements.

**K. Toxic Pollutants**

You must comply with effluent standards or prohibitions for toxic pollutants established under the Federal Clean Water Act, or under Section 9-314 and Sections 9-322 to 9-328 of the Environment Article, Annotated Code of Maryland. You must be in compliance within the time provided in the regulations that establish these standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

**L. Oil and Hazardous Substances Prohibited**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve you from any responsibility, liability, or penalties to which the permittee may be subject under Section 311 of the Clean Water Act (33 U.S.C. § 1321), or under the Annotated Code of Maryland.

#### **M. Civil and Criminal Liability**

Nothing in this permit shall be construed to preclude the institution of any legal action nor relieve you from any civil or criminal responsibilities, liabilities, and/or penalties for noncompliance with Title 9 of the Environment Article, Annotated Code of Maryland or any federal, local or other state law or regulation.

#### **N. Property Rights/Compliance with Other Requirements**

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

#### **O. Severability**

The provisions of this permit are severable. If any provisions of this permit must be held invalid for any reason, the remaining provisions must remain in full force and effect. If the application of any provision of this permit to any circumstances is held invalid, its application to other circumstances must not be affected.

#### **P. Water Construction and Obstruction**

This permit does not authorize you to construct or place physical structures, facilities, or debris or undertake related activities in any waters of the State.

#### **Q. Compliance with this General Permit and Water Pollution Abatement Statutes**

You must comply at all times with the terms and conditions of this permit, the provisions of the Environment Article, Title 7, Subtitle 2 and Title 9, Subtitles 2 and 3 of the Annotated Code of Maryland, and the Clean Water Act, 33 U.S.C. § 1251 *et seq.* Any noncompliance with any of the requirements of this permit constitutes a violation of the Clean Water Act.

#### **R. Action on Violations**

The issuance or reissuance of this permit does not constitute a decision by the State not to proceed in an administrative, civil, or criminal action for any violations of State law or regulations occurring before the issuance or re-issuance of this permit, nor a waiver of the State's right to do so.

#### **S. Civil Penalties for Violations of Permit Conditions**

In addition to civil penalties for violations of State water pollution control laws set forth in Section 9-342 of the Environment Article, Annotated Code of Maryland, the Clean Water Act provides that any person who violates Section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act or in a permit issued under Section 404 of the Act, is subject to a civil penalty not to exceed \$37,500 per day for each violation. Statutory

penalties of the CWA are subject to the Civil Monetary Penalty Inflation Adjustment Rule (40 CFR 19.4).

#### **T. Criminal Penalties for Violations of Permit Conditions**

In addition to criminal penalties for violations of State water pollution control laws set forth in Section 9-343 of the Environment Article, Annotated Code of Maryland, the Clean Water Act provides that:

1. Any person who negligently violates Section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or in a permit issued under Section 404 of the Act, is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one (1) year, or by both.
2. Any person who knowingly violates Section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or in a permit issued under Section 404 of the Act, is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than three (3) years, or by both.
3. Any person who knowingly violates Section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or in a permit issued under Section 404 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, is subject to a fine of not more than \$250,000 or imprisonment of not more than fifteen (15) years, or both. A person that is a corporation, must, upon conviction, be subject to a penalty of not more than \$1,000,000.
4. Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with or renders inaccurate any monitoring device or method required to be maintained under the Act, is subject to a fine of not more than \$10,000 or by imprisonment for not more than two (2) years, or by both.

#### **U. Duty to Provide Information**

You must provide within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit to the Department. You must also provide copies of records required to be kept by this permit to the Department, upon request.

#### **V. Reopener Clause for Permits**

This permit must be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301, 304, and 307 of the Clean Water Act [33 USCS §§ 1311, 1314, 1317] if the effluent standard or limitation issued or approved:

1. contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or

2. controls any pollutant not limited in this permit. This permit, as modified or reissued under this section, must also contain any other requirements of the Act then applicable.

## Part VI. AUTHORITY TO ISSUE GENERAL NPDES PERMITS

On September 5, 1974, the Administrator of the EPA approved the proposal submitted by the State of Maryland for the operation of a permit program for discharges into navigable waters under Section §402 of the federal Clean Water Act, 33 U.S.C. §Section 1342.

On September 30, 1990, the Administrator of the EPA approved the proposal submitted by the State of Maryland for the operation of a general permit program.

Under the approvals described above, this general discharge permit is both a State of Maryland general discharge permit and an NPDES general discharge permit.



Heather W. Barthel for (Jun 11, 2020 20:05 EDT)

D. Lee Currey, Director  
Water and Science Administration

**Appendix A: Specific Requirements for Discharge Categories**

**Table of Contents**

**DISCHARGE CATEGORY A: DISINFECTION OR HYDROSTATIC TESTING OF TANKS, PIPES OR PIPELINES.....A-2**

**DISCHARGE CATEGORY B: DISCHARGES FROM POTABLE WATER SYSTEMS .....A-5**

**DISCHARGE CATEGORY C: DEWATERING FROM CONSTRUCTION ACTIVITIES .....A-8**

**DISCHARGE CATEGORY D: GROUNDWATER REMEDIATION .....A-10**

**DISCHARGE CATEGORY E: DRAINING OR FLUSHING OF FIRE CONTROL SYSTEMS.....A-16**

**DISCHARGE CATEGORY F: UNTREATED “WATER” DISCHARGES .....A-19**

**DISCHARGE CATEGORY G: TANK BOTTOM WASTEWATER.....A-21**

**DISCHARGE CATEGORY H: STORMWATER DISCHARGES FROM ABOVEGROUND TANK CONTAINMENT .....A-23**

You must comply with Appendix A discharge-category-specific requirements associated with each discharge category applicable to your facility. These requirements are in addition to any requirements specified elsewhere in this permit, particularly those specified in Part III.

## Discharge Category A: Disinfection or Hydrostatic Testing of Tanks, Pipes or Pipelines

### Eligible Discharges:

Wastewater from disinfection (using only chlorine or bromine as a disinfecting agent) or hydrostatic testing of new or used tanks, pipes, or pipelines. This section does not include potable water systems operations (refer to Category B).

### Notice of Intent Requirements:

All dischargers under this category are required to submit a Notice of Intent (see Part II.A).

### Numerical Limitations (Applicable for Discharges to Surface Waters or Groundwater Under this Category):

The following numerical limitations are to be summarized on discharge monitoring reports and submitted via NetDMR in accordance with Part IV.F of this permit. Limitations presented in each table below are applicable only if the condition in the heading (i.e. chlorinated test water) has occurred for the wastewater being discharged. Should you have a quarter where you are discharging, but some limitations are not applicable (i.e. you did not use chlorinated test water those instances), you should report “NODI 9” for the parameters not required.

**NOTE:** Discharges under this category which occur to groundwater only are exempt from all numerical limits, monitoring, and reporting except for flow and oil & grease (where applicable).

#### Requirements for all discharges of hydrostatic test water under this category:

Parameter	Daily Minimum	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Flow		REPORT	REPORT	gpd	1/Discharge	Measured	(1)
Total Suspended Solids		60		mg/L	See Note 2	Grab	(2)
pH	6.0	9.0		s.u.	See Note 2	Grab	(2)

#### Additional requirements for discharges from tanks previously used to store oils (i.e. animal or vegetable oils, petroleum products, natural gas):

Parameter	Daily Maximum	Units	Monitoring Frequency	Sample Type	Notes
Oil & Grease	15	mg/L	See Note 2	Grab	(2)

#### Additional requirements if test or disinfection water is chlorinated or comes from a chlorinated water supply:

Parameter	Daily Maximum	Units	Monitoring Frequency	Sample Type	Notes
Total Residual Chlorine	0.1	mg/L	See Note 2	Grab	(2) (3)

**Additional requirements if test or disinfection water is chemically dechlorinated<sup>(4)</sup>:**

Parameter	Daily MINIMUM	Units	Monitoring Frequency	Sample Type	Notes
Dissolved Oxygen [y] - (Class I, I-P, II)	5.0	mg/L	See Note 2	Grab	(2) (5)
Dissolved Oxygen [z] - (Class III, III-P, IV, IV-P)	6.0	mg/L	See Note 2	Grab	(2) (6)

**Additional requirements if discharges occur into Class III, III-P, IV, or IV-P water, as defined by the Specific Designated Use Classes at COMAR 26.08.02.02B. (Required only from May through October)**

Parameter	Daily Minimum	Daily Maximum	Units	Monitoring Frequency	Sample Type	Notes
Temperature		REPORT	°F	2/Discharge	i-s	(7)
Temperature Difference	0		°F	2/Discharge	i-s	(7) (8)

**Notes (for all tables)**

- (1) Total volume of flow shall be measured and divided by the time over which the entire discharge occurred.
- (2) Required monitoring frequencies shall be based on volume of hydrostatic testing event as follows:
  - If effluent is 2,500 gallons or less for the event, minimum monitoring frequency shall be 1/discharge.
  - If effluent is 2,501-50,000 gallons for the event, minimum monitoring frequency shall be 2/discharge.
  - If effluent is 50,001 gallons or more for the event, minimum monitoring frequency shall be 3/discharge.
- (3) Even though to water quality standard for chlorine is 13 µg/L for salt water and 19 µg/L for fresh water, the permit limitation is based upon the nondetectable level for total residual chlorine per COMAR 26.08.03.06. Report results below 0.10 mg/L as “NODI B” in NetDMR.
- (4) For the purposes of this permit, the use of dechlorination tablets does not constitute chemical dechlorination. See Appendix B for the full definition.
- (5) Limit is applicable if the receiving stream for the discharges is Class I, I-P, or II, as defined by the Specific Designated Use Classes at COMAR 26.08.02.02B. The [y] designation is for reporting reasons to group these Use Classes.
- (6) Limit is applicable if the receiving stream for the discharges is Class III, III-P, IV, or IV-P, as defined by the Specific Designated Use Classes at COMAR 26.08.02.02B. The [z] designation is for reporting reasons to group these Use Classes.
- (7) Two grab samples required: one at the beginning of discharge and one approximately midway through the discharge.
- (8) “Temperature Difference” is the arithmetic result of subtracting the water quality standard temperature or the ambient stream temperature upstream of the discharges (whichever is higher) from the effluent temperature or the temperature at the edge of a 50-foot mixing zone from the point of discharge. The water quality standard temperature is 68°F for Class III and III-P streams and 75°F for Class IV and IV-P streams. (Note: If the effluent temperature is below the water quality standard temperature, no in-stream measurements would be required to demonstrate compliance.)

### **Narrative Limitations:**

1. ***Cleaning of Used Vessels:*** All used tanks, pipes, or pipelines shall be cleaned before being filled with test water. All wastewater and removed solids resulting from cleaning operations shall be properly disposed in a manner which will not result in a discharge to waters of the State.
2. ***Appropriations:*** If you are utilizing surface or ground waters of the State to perform hydrostatic testing, note the potential for additional requirements outlined in Part I.G.5 of this permit.
3. ***Treatment Systems:*** If discharges are directed into an oil/water separator, settling basin, or any other treatment system, the rate of discharge shall not exceed the design capacity of the treatment system.

## Discharge Category B: Discharges from Potable Water Systems

### Eligible Discharges:

Wastewater discharged from potable water utilities, including those from overflow, draining, or dewatering of reservoirs, vessels, or structures used to store or convey potable water for consumption. This category includes standing water and water from flushing, hydrostatic testing, mechanical cleaning (as defined in Appendix B), water main breaks, leaks, or other releases, as well as flushing of fire hydrants.

Discharges under this category that do not require effluent monitoring per the tables below are subject to narrative criteria found in this section and in other applicable sections of the permit.

### Notice of Intent Requirements:

All dischargers under this category are required to submit a Notice of Intent (see Part II.A).

### Numerical Limitations for Discharges to Surface Waters Under this Category:

The following numerical limitations are to be summarized on discharge monitoring reports and submitted via NetDMR in accordance with Part IV.F of this permit. Limitations presented in each table below are applicable only if the condition in the heading (i.e. mechanical cleaning) has occurred for the wastewater being discharged. Should you have a quarter where you are discharging, but some limitations are not applicable (i.e. you did not execute mechanical cleaning during that quarter), you should report “NODI 9” for the parameters not required.

**NOTE:** Discharges under this category which occur to groundwater only are exempt from all numerical limits, monitoring, and reporting.

#### Requirements for potable water sources where mechanical cleaning has occurred:

Parameter	Daily Minimum	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Flow		REPORT	REPORT	gpd	1/Discharge	Measured	(1)
Total Suspended Solids		60		mg/L	3/Discharge	Grab	(2)
pH	6.0	9.0		s.u.	3/Discharge	Grab	(2)

#### Requirements for potable water sources which have been super chlorinated:

Parameter	Daily Minimum	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Flow		REPORT	REPORT	gpd	1/Discharge	Measured	(1)
pH	6.0	9.0		s.u.	3/Discharge	Grab	(2)
Total Residual Chlorine		0.1		mg/L	3/Discharge	Grab	(2) (3)

**Requirements for potable water sources which have been chemically dechlorinated<sup>(4)</sup>:**

Parameter	Daily Minimum	Daily Maximum	Units	Monitoring Frequency	Sample Type	Notes
pH	6.0	9.0	s.u.	3/Discharge	Grab	(2)
Dissolved Oxygen [y] - (Class I, I-P, II)	5.0		mg/L	3/Discharge	Grab	(2) (5)
Dissolved Oxygen [z] - (Class III, III-P, IV, IV-P)	6.0		mg/L	3/Discharge	Grab	(2) (6)

**Notes (for all tables)**

- (1) Total volume of flow shall be measured and divided by the time over which the entire discharge occurred.
- (2) Three grab samples shall be collected at approximate even intervals and analyzed separately.
- (3) Even though to water quality standard for chlorine is 13 µg/L for salt water and 19 µg/L for fresh water, the permit limitation is based upon the nondetectable level for total residual chlorine per COMAR 26.08.03.06. Report results below 0.10 mg/L as “NODI B” in NetDMR.
- (4) For the purposes of this permit, the use of dechlorination tablets does not constitute chemical dechlorination. See Appendix B for the full definition.
- (5) Limit is applicable if the receiving stream for the discharges is Class I, I-P, or II, as defined by the Specific Designated Use Classes at COMAR 26.08.02.02B. The [y] designation is for reporting reasons to group these Use Classes.
- (6) Limit is applicable if the receiving stream for the discharges is Class III, III-P, IV, or IV-P, as defined by the Specific Designated Use Classes at COMAR 26.08.02.02B. The [z] designation is for reporting reasons to group these Use Classes.

**Narrative Requirements:**

1. **Pollution Prevention Plan.** While all discharge categories under this permit are required to develop and implement a Pollution Prevention Plan (PPP) in accordance with Part III.B.2, the PPP for this category are subject to specific inclusions (mostly due to the likelihood of multiple discharge points), such as:
  - a. **Discharge Inventory:** The PPP must include a list of anticipated discharges which identifies type (flushing, line maintenance, etc.), expected quantity, quality, and location of each discharge.
  - b. **Potential Alternatives:** Identification of any alternative to surface discharge, such as sanitary sewer disposal, overland flow, storm sewer discharge or any other possible alternative.
  - c. **Prior Data:** Identification of any data regarding quality of previous discharges at the point of discharge and/or the point of entry into surface waters which may provide guidance for future activities.
  - d. **Treatment Options:** Identification of treatment options for different discharge types and locations.
  - e. **Receiving Stream Information:** Stream designated uses, relevant TMDLs, or other in-stream information which may reflect on impact of these discharges on waters of the State.
  - f. **Protective of Water Quality:** The permittee is responsible for ensuring that their PPP includes practices sufficient enough for receiving waters to meet conditions associated with COMAR 26.08.03.06. If the Department identifies

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deficiencies in the PPP, the permittee shall have 90 days after receiving such a notification to update the PPP and provide written certification of such updates to the Department.

2. **Chlorine:** Per COMAR 26.08.03.06, discharges to surface waters cannot contain chlorine or chlorine-containing compounds except in nondetectable levels, which is less than 0.1 mg/L as determined using either the DPD titrimetric or colorimetric method or an alternate method approved by the Department. In order to comply with this requirement, you may consider dechlorination via chemical addition, absorption onto activated carbon, and/or control of discharge rates/holding of the effluent to that chlorine residuals naturally dissipate. Any other removal technology must be approved by the Department prior to use.

While monitoring and reporting of chlorine is not required for all types of discharges under this category, you remain responsible for ensuring that your discharges meet the terms of this narrative condition. You must be prepared to demonstrate that your best management practices (BMPs) and treatment technologies are sufficient to meet the requirements of this condition if requested by the Department. All BMPs, treatment methods, and any monitoring results collected to demonstrate compliance with this narrative condition must be documented in your PPP.

3. **Notification:** Dischargers under this category should take particular note of notification requirements in Part III.A for discharges exceeding 100,000 gallons and Part IV.H regarding permit non-compliance. Part IV.H of this permit is applicable to non-compliance with narrative effluent limitations in addition to numerical, so discharges of chlorinated water outside the spec of COMAR 26.08.03.06 (per narrative condition #2 of this category, above) shall be reported.

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## Discharge Category C: Dewatering from Construction Activities

### Eligible Discharges:

Wastewater discharges from construction dewatering activities and foundation drainage, so long as the water being discharged is uncontaminated (such as by organics or metallic elements in the groundwater - contaminated groundwater may be eligible for coverage under Discharge Category D at the Department's discretion). Groundwater may be pumped out via a well-point system or removed from the excavation. Commingled stormwater is also permissible under this permit. Dewatering from basins consisting of solely stormwater may be regulated under this section if activities are beyond the scope of a different stormwater permit (i.e. flocculent use). (Unless otherwise directed by the Department on a case-by-case basis, dewatering of sediment basins containing stormwater only does not require permit coverage under any permit if there is less than one acre of land disturbance and you are not using additives for treatment.)

### Notice of Intent Requirements:

Submission of a Notice of Intent for discharges under Discharge Category C shall only be required if you:

- a) discharge greater than 10,000 gallons per day,
- b) use a chemical additive as part of your management practices for erosion and sediment control (pursuant to Part III.C.4 of this permit), OR
- c) discharge into a Tier II stream or catchment (consult COMAR 26.08.02.04-10 and/or search the map at <https://mdewwp.page.link/Tier2Map> to determine if your receiving stream is Tier II)

All other dischargers under this category shall meet the narrative effluent limitations for this category (as well as the other applicable portions of the permit), but are not subject to submission of an NOI. Dischargers which are not required to submit an NOI are automatically authorized to discharge in compliance with the requirements of this permit. **NOTE:** This does not absolve the need to obtain and adhere to the terms other permits including but not limited to the General Permit for Stormwater Associated with Construction Activities or other permits identified in Part I.G of this permit where applicable.

### Numerical Limitations for Discharges under this Category:

There are no applicable numerical limitations for this category. Please note the monitoring provisions for pH identified in the narrative requirements below.

### Narrative Requirements:

1. **Monitoring for Flow and pH:** All dischargers to surface water under this category are required to monitor flow and pH a minimum of once per week. For discharges which are not subject to the numerical limitations/monitoring/reporting above, you are required to document flow measurements/estimations and pH measurements as part of your Pollution Prevention Plan (PPP). Should pH be outside the range of 6.0 to 9.0 for two consecutive weeks, you must implement a corrective action to restore pH

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- to the range specified. All necessary corrective actions shall be documented in the PPP.
2. **Erosion and Sediment Control:** Take particular note of Parts III.C.1 and III.C.3 of this permit regarding requirements for management of erosion and sediment. Also take note of Part III.C.4 regarding the use of chemical additives (if applicable). Discharges which cause a noticeable sediment plume in the receiving waters are not permitted. If such a condition is observed, you shall cease discharge as soon as possible and implement a corrective action.
  3. **Concrete/Cement Use:** If raw materials for concrete or cement are present on site and/or you are actively utilizing concrete or cement in your construction, you shall minimize contact with stormwater or groundwater. During such times, the monitoring for pH required under Narrative Requirement #1 in this section shall be increased to a minimum of once daily and the sample collected must be representative of when the concrete/cement materials are present. Any result outside of the range of 6.0 to 9.0 shall require follow-up monitoring every 30 minutes until the pH returns to a range of 6.0 to 9.0. If an excursion occurs for longer than three consecutive hours, you shall cease discharge and implement a corrective action. Discharge may resume again once pH is between 6.0 and 9.0. Documentation of concrete/cement use, appropriate controls, and monitoring results shall be maintained in your PPP.
  4. **Organics/Metals Monitoring:** If you are discharging to surface water, as part of your application for registration under this general permit, you must indicate if there is any cause for belief that the groundwater to be discharged has a reasonable potential to contain volatile organic compounds, metallic elements, or any other pollutant other than sediment. Any data which you have obtained or know to exist from environmental assessments or well point monitoring must be included as part of your application. If no data is available, the Department may require additional monitoring upon commencement of discharge (or before, if accessible) if it is deemed necessary by a best professional judgment analysis.
  5. **Conclusion of Construction Dewatering Activities:** Once you conclude activities at the site which lead to discharges from dewatering, you may terminate coverage under this permit. Until you terminate coverage, you will continue to be responsible for submission of required discharge monitoring reports via NetDMR (if applicable), even if you are reporting “No Discharge.”

## Discharge Category D: Groundwater Remediation

### Eligible Discharges:

Discharges of groundwater which has been contaminated by volatile or semi-volatile organics, including that from foundation drainage, which has been treated using air stripping, air sparging, or carbon absorption to remove volatile organic compounds.

Discharges of groundwater which is contaminated solely by petroleum-based contaminants shall be covered under the General Discharge Permit of Treated Ground Water from Oil Contaminated Ground Water Sources to Surface or Ground Waters of the State, which is administered by the Department’s Oil Control Program (see Part I.G.4).

### Notice of Intent Requirements:

All dischargers under this category are required to submit a Notice of Intent (see Part II.A).

### Numerical Limitations for Discharges to Surface Waters *Not Classified for Drinking Water:*

The following numerical limitations apply to discharges to Class I, II, III, and IV streams (as defined by the Specific Designated Use Classes at COMAR 26.08.02.02B) and are to be summarized on discharge monitoring reports and submitted via NetDMR in accordance with Part IV.F of this permit.

#### Discharges of groundwater remediated to adjust pH

Parameter	Daily Minimum	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Flow		REPORT	REPORT	gpd	1/Month	Measured	(1)
pH	6.0	9.0		s.u.	See Note 2	Grab	(2)

#### All discharges of remediated groundwater impacted by organics

Parameter	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Flow	REPORT	REPORT	gpd	1/Month	Measured	(1)
Total Volatile Organics	100	REPORT	µg/L	See Note 2	Grab	(2) (3)

#### Discharges which include contamination by all gasoline, leaded or unleaded (among other contaminants)

Parameter	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
BTEX	100	REPORT	µg/L	See Note 2	Calculated	(2) (4)
Benzene	22	REPORT	µg/L	See Note 2	Grab	(2)

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Parameter	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Toluene	REPORT	REPORT	µg/L	See Note 2	Grab	(2)
Ethylbenzene	REPORT	REPORT	µg/L	See Note 2	Grab	(2)
Xylene	REPORT	REPORT	µg/L	See Note 2	Grab	(2)

**Discharges which include contamination by leaded gasoline (among other contaminants)**

Parameter	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Total Lead (fresh)	REPORT	2.5	µg/L	See Note 2	Calculated	(2) (5)
Total Lead (salt)	REPORT	8.1	µg/L	See Note 2	Grab	(2) (6)

**Discharges which include contamination by petroleum-based products other than gasoline (among other constituents)**

Parameter	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Total Petroleum Hydrocarbons	15	REPORT	mg/L	See Note 2	Grab	(2) (8)
MTBE	REPORT	REPORT	µg/L	See Note 2	Grab	(2)
Naphthalene	REPORT	REPORT	µg/L	See Note 2	Grab	(2)

**Discharges which include contamination by other organics**

Parameter	CAS No. <sup>4</sup>	STORET <sup>5</sup>	Daily Max	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Benzene	71-43-2	34030	22	REPORT	µg/L	See Note 2	Grab	(2)
Bromodichloromethane	75-27-4	32101	27	REPORT	µg/L	See Note 2	Grab	(2)
Chlorodibromomethane	124-48-1	32105	21	REPORT	µg/L	See Note 2	Grab	(2)
Carbon Tetrachloride	56-23-5	32102	5	REPORT	µg/L	See Note 2	Grab	(2)
1,3-Dichlorobenzene	541-73-1	34566	10	REPORT	µg/L	See Note 2	Grab	(2)
1,2-Dichloropropane	78-87-5	34541	31	REPORT	µg/L	See Note 2	Grab	(2)
1,1,1,2-Tetrachloroethane	79-34-5	34516	3	REPORT	µg/L	See Note 2	Grab	(2)
Tetrachloroethene	127-18-4	34475	29	REPORT	µg/L	See Note 2	Grab	(2)

<sup>4</sup> CAS Number is a unique number identifier assigned by the Chemical Abstracts Service to every chemical substance. They have been provided to avoid confusion due to naming variations of organics.

<sup>5</sup> The STORET code is an EPA identifier for use by WSA Compliance in assembling reporting spreadsheets.

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Parameter	CAS No. <sup>4</sup>	STORET <sup>5</sup>	Daily Max	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
1,1,2-Trichloroethane	79-00-5	34511	8.9	REPORT	µg/L	See Note 2	Grab	(2)
Trichloroethylene	79-01-6	39180	7	REPORT	µg/L	See Note 2	Grab	(2)
1,2,4-Trichlorobenzene	120-82-1	34551	0.03	REPORT	µg/L	See Note 2	Grab	(2)
Vinyl chloride	75-01-4	39175	1.6	REPORT	µg/L	See Note 2	Grab	(2)

**Numerical Limitations for Discharges to Surface Waters Classified for Drinking Water or Discharges to Groundwater:**

The following numerical limitations apply to discharges to Class I-P, II-P, III-P, and IV-P streams (as defined by the Specific Designated Use Classes at COMAR 26.08.02.02B) and are to be summarized on discharge monitoring reports and submitted via NetDMR in accordance with Part IV.F of this permit.

**Discharges of groundwater remediated to adjust pH**

Parameter	Daily Minimum	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Flow		REPORT	REPORT	gpd	1/Month	Measured	(1)

**All discharges of remediated groundwater impacted by organics**

Parameter	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Flow	REPORT	REPORT	gpd	1/Month	Measured	(1)
Total Volatile Organics	100	REPORT	µg/L	See Note 2	Grab	(2) (3)

**Discharges which include contamination by all gasoline, leaded or unleaded (among other contaminants)**

Parameter	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
BTEX	100	REPORT	µg/L	See Note 2	Calculated	(2) (4)
Benzene	2.1	REPORT	µg/L	See Note 2	Grab	(2)
Toluene	57	REPORT	µg/L	See Note 2	Grab	(2)
Ethylbenzene	68	REPORT	µg/L	See Note 2	Grab	(2)
Xylenes	REPORT	REPORT	µg/L	See Note 2	Grab	(2)

**Discharges which include contamination by leaded gasoline (among other contaminants)**

Provides discharge authorization only upon Maryland Department of the Environment notification of registration. IFB #01-22

Parameter	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Total Lead (fresh)	4.10	2.04	µg/L	See Note 2	Grab	(2) (5)
Total Lead (salt)	13.28	6.62	µg/L	See Note 2	Grab	(2) (6)
Total Lead (ground)	30.15	15	µg/L	See Note 2	Grab	(2) (7)
1,2-Dichloroethane	5	REPORT	µg/L	See Note 2	Grab	(2)
Ethylene dibromide	0.05	REPORT	µg/L	See Note 2	Grab	(2)

**Discharges which include contamination by petroleum-based products other than gasoline (among other constituents)**

Parameter	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Total Petroleum Hydrocarbons	15	REPORT	mg/L	See Note 2	Grab	(2) (8)
MTBE	REPORT	REPORT	µg/L	See Note 2	Grab	(2)
Naphthalene	REPORT	REPORT	µg/L	See Note 2	Grab	(2)

**Discharges which include contamination by other organics**

Parameter	CAS No.	STORET	Daily Max	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Benzene	71-43-2	34030	2.1	REPORT	µg/L	See Note 2	Grab	(2)
Bromoform	75-25-2	32104	7	REPORT	µg/L	See Note 2	Grab	(2)
Bromodichloromethane	75-27-4	32101	0.95	REPORT	µg/L	See Note 2	Grab	(2)
Chlorodibromomethane	124-48-1	32105	0.8	REPORT	µg/L	See Note 2	Grab	(2)
Chloroform	67-66-3	32106	60	REPORT	µg/L	See Note 2	Grab	(2)
Bromomethane	74-83-9	34413	47	REPORT	µg/L	See Note 2	Grab	(2)
Carbon Tetrachloride	56-23-5	32102	0.4	REPORT	µg/L	See Note 2	Grab	(2)
1,3-Dichlorobenzene	541-73-1	34566	7	REPORT	µg/L	See Note 2	Grab	(2)
1,2-Dichloroethane	107-06-2	34531	5	REPORT	µg/L	See Note 2	Grab	(2)
1,1-Dichloroethylene	75-35-4	34501	7	REPORT	µg/L	See Note 2	Grab	(2)
1,2-Dichloropropane	78-87-5	34541	0.9	REPORT	µg/L	See Note 2	Grab	(2)
Ethyl benzene	100-41-4	34371	68	REPORT	µg/L	See Note 2	Grab	(2)
Methylene chloride	75-09-2	34423	20	REPORT	µg/L	See Note 2	Grab	(2)
1,1,2,2-Tetrachloroethane	79-34-5	34516	0.2	REPORT	µg/L	See Note 2	Grab	(2)

Parameter	CAS No.	STORET	Daily Max	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Tetrachloroethene	127-18-4	34475	5	REPORT	µg/L	See Note 2	Grab	(2)
Toluene	108-88-3	34010	57	REPORT	µg/L	See Note 2	Grab	(2)
1,1,2-Trichloroethane	79-00-5	34511	0.55	REPORT	µg/L	See Note 2	Grab	(2)
Trichloroethylene	79-01-6	39180	0.6	REPORT	µg/L	See Note 2	Grab	(2)
1,2,4-Trichlorobenzene	120-82-1	34551	0.03	REPORT	µg/L	See Note 2	Grab	(2)
Vinyl chloride	75-01-4	39175	0.022	REPORT	µg/L	See Note 2	Grab	(2)

**Notes (for all tables)**

(1) Total volume of flow shall be measured and divided by the time over which the entire discharge occurred.

(2) Required monitoring frequencies shall be based on volume of treated effluent as follows:

- If effluent is 25,000 gallons or less per month, minimum monitoring frequency shall be 1/month.
- If effluent is 25,001-500,000 gallons per month, minimum monitoring frequency shall be 2/month.
- If effluent is 500,001 gallons or more per month, minimum monitoring frequency shall be 1/week.

The frequency shall be determined based on an expected typical month, not necessarily each month on its own. For example, if you routinely treat 50,000 gallons each month, but happen to treat only 24,000 in a given month, you should still monitor twice that month and each month going forward until you're routinely treating less than 25,000 each month.

- (3) "Total Volatile Organics" is the sum of all parameters measured by EPA Test Method 624. You shall attach a complete list of monitoring results for all parameters of Method 624 for each sample result when submitting results in NetDMR.
- (4) "Total BTEX" is the sum of benzene, toluene, ethyl benzene, and xylenes.
- (5) Limit is applicable if the receiving stream for the discharges is fresh water.
- (6) Limit is applicable if the receiving stream for the discharges is salt water.
- (7) Limit is applicable if the discharges are to groundwater.
- (8) "Total Petroleum Hydrocarbons" is the sum of all parameters measured by EPA Test Method 8015B.

**Narrative Requirements:**

1. **Treatment Method:** The technology-based limitations for this category are based on what the Department has determined is achievable for air stripping, air sparging, and/or carbon adsorption. You must maintain a full description of your treatment system in your PPP, including a log of system inspections and/or repairs.

If you desire to use a different treatment method, you must submit system specifications and certifications which demonstrate to the Department that the system is capable of meeting all applicable numerical limits for the wastewater at your site. Documents which complete this demonstration must be attached to the NOI. The Department reserves the right to require an individual permit if it is not satisfied that the technology is sufficient.

- 2. Additional Application Requirement:** In addition to a completed Notice of Intent (NOI), dischargers under this category must collect a minimum of one sample of the water to be discharged prior to any treatment and submit the results using EPA Form 3510-2C. Sampling results must be included for all parameters listed in Form 3510-2C Part V.B (except radioactivity parameters) and the “Metals, Cyanide, and Total Phenols” and “Volatile Compounds” section of Part V.C at a minimum. Parameters which are below the detection limits for their respective test method must indicate the value of the detection limit. Any parameters not tested as a result of the permittee believing there is no reasonable potential must be marked as “Believed Absent.”

The complete, signed EPA Form 3510-2C shall be attached to the Notice of Intent upon submission. Analysis reports from the laboratory are not required for attachment unless requested by Department personnel. The Department reserves the right to require additional testing beyond what is submitted if it has reason to believe there is reasonable potential for any pollutants not included in the sampling analysis.

## Discharge Category E: Draining or Flushing of Fire Control Systems

### Eligible Discharges:

Wastewater from draining or flushing of fire control or fire suppression systems. This section does not include the flushing of fire hydrants, which are permitted under Discharge Category B of this permit.

### Notice of Intent Requirements:

All dischargers under this category are required to submit a Notice of Intent (see Part II.A). If it is foreseeable that discharges could exceed half the flow of the receiving stream (max discharge vs. stream low flow conditions), this must be indicated by selecting the applicable checkbox on the Notice of Intent.

### Numerical Limitations for Discharges to Surface Waters Under this Category:

The following tables list requirements which are to be monitored as directed, with results maintained on site along with the permit registration letter and to be made available upon request of Department personnel.

**NOTE:** Discharges under this category which occur to groundwater only are exempt from all numerical limits, monitoring, and reporting.

#### Requirements for all discharges under this category:

Parameter	Daily Minimum	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Flow		REPORT	REPORT	gpd	1/Discharge	Measured	(1)
Total Residual Chlorine		ND		mg/L	2/Discharge	Grab	(2) (3) (4)

#### Requirements for discharges which either exceed 100,000 gpd or half the flow of the receiving stream (Required only from May through October):

Parameter	Daily Minimum	Daily Maximum	Units	Monitoring Frequency	Sample Type	Notes
Temperature		See Note 5	°F	See Note 5	i-s	(5)

#### Requirements for potable water sources which have been chemically dechlorinated<sup>(6)</sup>:

Parameter	Daily Minimum	Daily Maximum	Units	Monitoring Frequency	Sample Type	Notes
Dissolved Oxygen (Class I, I-P, II)	5.0		mg/L	2/Discharge	Grab	(3) (7)
Dissolved Oxygen (Class III, III-P, IV, IV-P)	6.0		mg/L	2/Discharge	Grab	(3) (8)

*Notes (for all tables)*

- (1) Total volume of flow shall be measured and divided by the time (in days) over which the entire discharge occurred.
- (2) Testing for total residual chlorine is only required when the source water has been chlorinated. If sampling is not applicable, you must maintain a note indicating the reason in your records.
- (3) Two grab samples required: one at the beginning of discharge and one approximately midway through the discharge.
- (4) The limitation is identified as “ND,” which indicates that chlorine must be below the minimum quantification level, which for total residual chlorine is 0.10 mg/L using either the DPD titrimetric or colorimetric method (or an alternative method, if approved by the Department). All results below 0.10 mg/L may be recorded as “< 0.10” or “ND” in your records.
- (5) This limitation is applicable when flows exceed 100,000 gpd or half of the receiving stream during current conditions. You should err on the side of caution and collect samples for reporting if this may be the case. If sampling is not applicable based on discharge volume (vs. flow conditions, if applicable), you must maintain a note in your records. You must verify compliance with the water quality standard by measuring temperature of the water to be discharged within thirty minutes prior to commencing discharge. If the temperature exceeds the water quality standard for the receiving stream (68°F for Class III and III-P; 75°F for Class IV and IV-P; and 90°F for Class I, I-P, and II), then during the discharge, you must monitor temperatures in even intervals (at least three measurements) at the edge of the 50-foot mixing zone, as identified in Note 3, above.
- (6) For the purposes of this permit, the use of dechlorination tablets does not constitute chemical dechlorination. See Appendix B for the full definition.
- (7) Limit is applicable if the receiving stream for the discharges is Class I, I-P, or II, as defined by the Specific Designated Use Classes at COMAR 26.08.02.02B.
- (8) Limit is applicable if the receiving stream for the discharges is Class III, III-P, IV, or IV-P, as defined by the Specific Designated Use Classes at COMAR 26.08.02.02B.

### **Narrative Requirements:**

1. **Chlorine:** Per COMAR 26.08.03.06, discharges cannot contain chlorine or chlorine-containing compounds except in nondetectable levels. In order to comply with the numerical limitation outlined above, you may consider dechlorination via chemical addition (subject to numerical limitations above) or the use of dechlorination tablets, absorption onto activated carbon, and/or control of discharge rates/holding of the effluent to that chlorine residuals naturally dissipate. Any other removal technology must be approved by the Department prior to use.
2. **Temperature:** Discharges shall not cause the temperature of the receiving waters, beyond a mixing zone which extends 50 feet radially (in still water) or 50 feet downstream (in flowing water), to exceed the applicable water quality standard for the receiving stream (68°F for Use III or III-P, 75°F for Use IV or IV-P, or 90°F for all other Uses). If the ambient temperature of the receiving waters exceeds these standards, then the temperature shall not exceed the ambient temperature of the stream.

You must apply controls to your discharge to prevent temperature exceedances and be able to demonstrate compliance with this condition if requested. Any monitoring results for temperature must be maintained on site and made available if requested by the Department. If your discharge is causing an exceedance for temperature, you shall either reduce flows or decrease effluent temperatures to a level where in-stream dilution is sufficient for the water quality standards to be met at the edge of the allowable mixing zone. In addition to this narrative requirement, please note the numerical monitoring

required for discharges which exceed 100,000 gallons per day or half the flow of the receiving stream (above).

## Discharge Category F: Untreated “Water” Discharges

### Eligible Discharges:

Discharges of untreated “water” in excess of 10,000 gallons per day (as a monthly average), or untreated “water” otherwise specifically required for coverage by the Department on a case-by-case basis from water storage or distribution systems, including but not limited to hydrogeologic/aquifer/well head yield testing. This category is designed primarily to cover discharges of raw water overflows from intakes or aqueducts. This category excludes any water sources which have been chlorinated.

### Notice of Intent Requirements:

Submission of a Notice of Intent for discharges under Discharge Category F shall only be required if you

- a) discharge 100,000 gallons per day or greater (as a monthly average), OR
- b) discharge into a Tier II stream or catchment (consult COMAR 26.08.02.04-1O and/or search the map at <https://mdewwp.page.link/Tier2Map> to determine if your receiving stream is Tier II)

All other dischargers under this category shall meet the numerical (if applicable) and narrative effluent limitations for this category (as well as other applicable portions of the permit), but are not subject to submission of an NOI. Dischargers which are not required to submit an NOI are automatically authorized to discharge in compliance with the requirements of this permit.

### Numerical Requirements:

The following table and associated language identifies temperature requirements which is to be monitored as directed, during the months of May through October. Monitoring results shall be maintained on site (along with the permit registration letter – if applicable) and to be made available upon request of Department personnel. *This Discharge Category is not subject to submission of discharge monitoring reports via NetDMR.*

**Requirements for discharges which either exceed 100,000 gpd or half the flow of the receiving stream (Required only from May through October):**

Parameter	Daily Minimum	Daily Maximum	Units	Monitoring Frequency	Sample Type	Notes
Temperature		See Below	°F	See Below	i-s	

You must verify compliance with the water quality standard by measuring temperature of the water to be discharged within thirty minutes prior to commencing discharge. If the temperature exceeds the water quality standard for the receiving stream (68°F for Class III and III-P; 75°F for Class IV and IV-P; and 90°F for Class I, I-P, and II), then during the discharge, you must monitor temperatures in even intervals (at least three measurements) at the edge of a mixing zone which extends 50-feet radially from the outfall and, in flowing water, 50-feet in the direction of flow.

If an in-stream exceedance is occurring outside of the mixing zone, you shall take corrective action(s) such as decreasing the flow to meet water quality standards or ceasing discharge until cooler temperatures exist. You shall note any corrective actions taken in a log and maintain such log alongside the required monitoring results.

**Narrative Requirements:**

Discharges which create a visual plume of sediments or noticeably alter the color of the receiving stream are not permitted.

You shall reference the requirements of Part III.C.1 regarding erosion and sediment control, particularly if discharges comprise a significant portion of the receiving stream and/or typically occur over dry land or into shallow standing or flowing waters.

## Discharge Category G: Tank Bottom Wastewater

### Eligible Discharges:

Treated tank bottom wastewater from petroleum (i.e. gasoline, kerosene, fuel oil, 'No. 6 oil,' and aviation fuel only) storage tanks to surface waters. "Tank bottoms" is a term used to describe the combination of water, contaminated water, and sediments that collect on the bottom of storage tanks.

### Notice of Intent Requirements:

All dischargers under this category are required to submit a Notice of Intent (see Part II.A).

### Numerical Limitations:

The following numerical limitations are to be summarized on discharge monitoring reports and submitted via NetDMR in accordance with Part IV.F of this permit.

Parameter	Daily Maximum	Monthly Average	Units	Monitoring Frequency	Sample Type	Notes
Flow	REPORT	REPORT	gpd	1/Discharge	Measured	(1)
Oil & Grease	15	REPORT	mg/L	3/Discharge	Grab	(2)
BTEX	100	REPORT	µg/L	3/Discharge	Calculated	(2) (3)
Benzene	22	REPORT	µg/L	3/Discharge	Grab	(2)
Toluene	REPORT	REPORT	µg/L	3/Discharge	Grab	(2)
Ethylbenzene	REPORT	REPORT	µg/L	3/Discharge	Grab	(2)
Xylene	REPORT	REPORT	µg/L	3/Discharge	Grab	(2)
Total Suspended Solids (TSS)	60	REPORT	mg/L	3/Discharge	Grab	(2)

#### **Notes**

- (1) Total volume of flow shall be measured and divided by the time over which the entire discharge occurred.
- (2) Three grab samples shall be collected at approximate even intervals and analyzed separately.
- (3) BTEX is the sum of benzene, toluene, ethylbenzene, and xylene concentrations.

### Narrative Limitations:

1. **Biomonitoring:** You may only discharge tank bottoms wastewater after confirming via biomonitoring (subject to the testing terms in item 2 of this section, below) that each batch is not acutely toxic. Results from biomonitoring must be submitted to and approved by the Department prior to commencement of discharges.

- 2. Biomonitoring Plan Approval:** Within three months after registration for Discharge Category G under this permit, you must submit a study plan for evaluation of effluent toxicity by using biomonitoring, accounting for the following terms at a minimum:
- a. The study plan should discuss (1) sample and sample handling, (2) source and age of test organisms, (3) source of dilution water, (4) testing procedure/experimental design, (5) data analysis, (6) quality control/quality assurance, and (7) report preparation.
  - b. The testing program shall consist of one definitive acute testing event. This testing shall not be performed before the Department's acceptance of the study plan, as indicated by written approval.
    - i. The testing event shall include a 48-hour static renewal test using fathead minnow and a 48-hour static renewal test using a daphnid species.
    - ii. If the receiving water is estuarine, you may substitute estuarine species for those species specified above. Approved estuarine species for acute testing are sheepshead minnows, silversides, grass shrimp, and mysid shrimp. In all cases, testing must include one vertebrate species and one invertebrate species.
  - c. The sample used for biomonitoring shall be collected in the same manner and location as the samples analyzed for the effluent limitations and monitoring requirements for this outfall, and shall not be chlorinated. Testing shall be conducted in accordance with the procedures described in the EPA's Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, October 2002 and further revisions found on the EPA's website (<https://mdewwp.page.link/acuteWET>).
  - d. Test results shall be submitted to the Department within one month of completion.
  - e. Test results shall be reported in accordance with MDE/WMA "Reporting Requirements for Effluent Biomonitoring Data".
  - f. If testing is not performed in accordance with MDE-approved study plan, additional testing may be required by the Department.
  - g. If the test results indicate that the effluent is toxic, the discharge will not be authorized by this permit.
  - h. Submit all biomonitoring-related materials to:

Maryland Department of the Environment  
WSA - Compliance Program  
1800 Washington Boulevard, Suite 420  
Baltimore, Maryland 21230  
Attn: Biomonitoring

## Discharge Category H: Stormwater Discharges from Aboveground Tank Containment

### **Eligible Discharges:**

Discharges of stormwater from within dikes, berms, walls, or any other containment structure for sites of actively-used aboveground storage tanks which are not already covered by a different NPDES permit. This permit does not authorize discharges resulting from a spill event including any spilled material or stormwater which is impacted by any spilled material.

The presence of a containment structure for aboveground tanks does not in and of itself trigger a requirement for coverage under this or any other discharge permit.<sup>6</sup> If your facility seeks coverage under this permit for other types of discharges and your facility has tanks within a containment structure, you must also obtain coverage under this section for discharges of stormwater from that containment structure for the duration of time you hold this general permit.

### **Notice of Intent Requirements:**

All dischargers registering for coverage under this category are required to submit a Notice of Intent (see Part II.A).

### **Visual Monitoring:**

If no known spill or leak has occurred within the containment area since the time of the most recent prior stormwater discharge, the permittee shall visually inspect collected stormwater prior to opening the valve to the outfall. If a visible oily sheen is observed on the surface of the water, the following sampling and numerical monitoring is required. If any other product which had been previously contained in the tank is visible or otherwise detected, the permittee should defer to Narrative Criteria below.

If a known spill or leak has occurred within the containment area since the time of the most recent prior stormwater discharge, the sampling and numerical monitoring presented below are automatically required regardless of the findings resulting from visual monitoring.

Requirement #4 under Narrative Monitoring, below, regards logging of visual monitoring results.

### **Monitoring Requirements Following a Spill or Leak Event:**

If a spill or leak event occurs within a containment area, the permittee shall not discharge any spilled materials and shall take actions such as but not limited to pumping and hauling, power washing, and scrubbing of the surface to ensure removal of all spilled material. Prior to discharging any stormwater collected within a containment area for the first time after a spill event and clean up, the permittee must collect a sample from the containment area and ensure that no visible or odorous pollutants are discharged. If a sample contains a visible sheen, floating solids, or a noxious smell, then the water collected in the containment area should be

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<sup>6</sup> Unless specifically directed by the Department, facilities containing no other source of discharges which require coverage under this general permit or an NPDES permit for industrial stormwater are not required to obtain permit coverage for stormwater discharges from aboveground tank containment structures. Such facilities are, however, advised to follow the requirements of this section and implement good housekeeping to ensure protection of receiving waters.

discharged into a sanitary sewer system or hauled to a treatment facility and clean up should be re-initiated.

If a known spill or leak has occurred within a containment area and the material spilled was petroleum-based, the following numerical guidelines are provided to determine if water is suitable for discharge. The first time stormwater is collected in the containment area following a spill or leak of a petroleum based product, the permittee shall collect a sample from the containment area or during discharge to verify compliance with the following limitations. This process shall continue for every subsequent rain event which necessitates a discharge until a compliant test has occurred. Even if the water is not ultimately discharged (the permittee tests collected stormwater, but hauls it away for treatment or discharges to sanitary sewer as a precaution), a compliant sample fulfills this requirement and the permittee may resume discharging without numerical monitoring (still subject to visual monitoring) until an additional spill or leak has occurred. If a discharge of water occurs where the water is determined to exceed a numerical limit outlined below, the permittee shall notify the Department’s Compliance program per Part IV.H.1 of this permit.

***This Discharge Category is not subject to submission of discharge monitoring reports via NetDMR.*** Records of all numerical and/or visual monitoring shall be maintained on site and must be made available upon request of Department personnel.

**Guidelines for stormwater from all petroleum tank containment structures**

Parameter	Daily Maximum	Units	Monitoring Frequency	Sample Type	Notes
Oil & Grease	15	mg/L	1/Discharge	Grab	

**Additional guidelines for tanks containing gasoline:**

Parameter	Daily Maximum	Units	Monitoring Frequency	Sample Type	Notes
BTEX	100	µg/L	1/Discharge	Calculated	(1)
Benzene	22	µg/L	1/Discharge	Grab	
Toluene	REPORT	µg/L	1/Discharge	Grab	
Ethylbenzene	REPORT	µg/L	1/Discharge	Grab	
Xylene	REPORT	µg/L	1/Discharge	Grab	

**Notes (for all tables):**

(1) BTEX is the sum of benzene, toluene, ethylbenzene, and xylene concentrations.

**Narrative Requirements:**

- 1. Notification:** Notification must be provided to the Water and Science Administration’s Compliance Program prior to commencing the initial discharge from stormwater containment after clean up has occurred following a spill event.

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2. **Water Quality Limitations:** In addition to meeting any applicable numerical limitations specified for this Discharge Category, your discharge must be controlled as necessary to meet applicable water quality standards, as specified in COMAR 26.08.02. If at any time you become aware, or the Department determines, that your discharge causes or contributes to an exceedance of applicable water quality standards, then you must (1) notify the Department in accordance with Part IV.H of this permit, (2) develop a corrective action plan to prevent future discharges from exceeding water quality standards, and (3) report corrective actions to the Department. The Department reserves the right to impose water quality-based limitations on a site-specific basis (based on criteria in COMAR 26.08.02.03) or require you to obtain coverage under an individual permit if necessary for the protection of water quality standards.
  3. **Outfall Valve:** The outlet from all containment structures must be maintained in the closed position at all times, except during deliberate stormwater drainage operations.
  4. **Inspections/Logbook:** You shall inspect the containment area a minimum of once per month and shall maintain a logbook of observations, particularly noting any observed spills or leaks. Any spilled or leaked product shall be properly cleaned up and removed as soon as possible. The logbook shall also contain results from all visual inspections prior to discharge of stormwater, as required in the “Visual Monitoring” section above. At a minimum, the log shall include the name of the person performing the inspection, date and time, and a brief description of observations of the containment area.
  5. **Spill Prevention and Response Procedures:** You must minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur. These procedures are complementary to and do not replace any requirements of RCRA (42 U.S.C. §6901), the Department’s Land and Materials Administration Oil Control Program, NFPA 30 Flammable and Combustible Liquids Code or the Spill Prevention, Control and Countermeasure (SPCC) Plan (as a requirement of 40 CFR § 112), At a minimum, you must implement:
    - a. Procedures for plainly labeling containers (e.g., “Used Oil,” “Spent Solvents,” “Fertilizers and Pesticides,” etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;
    - b. Quarterly inspection procedures for containers that are susceptible to spillage or leakage (e.g., used oil) to ensure the containment structures have no leaks/cracks, and that the outlets are properly sealed. Check that plugs are properly affixed, that valves are in working condition, and that neither are leaking;
    - c. Procedure for the discharge of any stormwater from a containment structure, requiring that a sample is taken to ensure that no visible or odorous pollutants are discharged. If a sample contains a visible sheen, floating solids or a noxious smell, then you must discharge the remaining wastewater as directed by the “Numerical Monitoring” section above (for oily sheen) or to a sanitary sewer system or haul it to a recycler or TSD (Treatment Storage & Disposal Facilities) or disposal facility;

- d. Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
- e. Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of your stormwater pollution prevention team as described in Part III.C.1; and
- f. Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period, you must notify the Department's Emergency Spill Response number at (866) 633-4686 and EPA's National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC, metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 as soon as you have knowledge of the discharge. Local requirements may necessitate reporting spills or discharges to local emergency response, public health, or drinking water supply agencies. Contact information must be in locations that are readily accessible and available

## Appendix B: Definitions, Abbreviations, and Acronyms

**Additive or Chemical additive** - waste water treatment chemicals or products added to water prior to discharge, such as polymers or flocculants. Additives are added to the water so that the discharge water is in compliance with the permit limits.

**Bypass** - the intentional diversion of wastes from any portion of a treatment facility.

**CFR** - Code of Federal Regulations

**Chemical dechlorination** – refers to the use of an additive (e.g. sodium bisulfite, sodium thiosulfate) which, if over added, may cause scavenging of dissolved oxygen. Specifically, for the purposes of this permit, this does not include the use of dechlorination tablets.

**COMAR** - Code of Maryland Regulations

**Construction Activities** – earth-disturbing activities, such as the clearing, grading, and excavation of land, and other construction activities (e.g. stockpiling of fill material, placement of raw materials at the site) that could lead to the generation of pollutants.

**Control measure** – refers to any BMP or other method (including narrative effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the State.

**CWA** – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)

**Corrective action** – for the purposes of the permit, any action taken, or required to be taken, to (1) repair, modify, or replace any stormwater control used at the site; (2) clean up and dispose of spills, releases, or other deposits found on the site; and (3) remedy a permit violation.

**Daily determination of concentration** - one analysis performed on any given sample representing flow during a calendar day, with one number in mg/L or other appropriate units as an outcome.

**Daily maximum effluent concentration** - the highest reading of any daily determination of concentration.

**Daily maximum temperature** - the highest temperature observed during a 24-hour period, or if flows are of shorter duration, during the operating day.

**Department** - the Maryland Department of the Environment. Unless stated otherwise, all submissions to the Department shall be directed to the attention of the Wastewater Permits Program.

**Dewatering** – the act of draining rainwater and/or ground water from building foundations, vaults, and trenches

**Discharge** – when used without qualification, means the "discharge of a pollutant." See 40 CFR 122.2.

**Discharge of a pollutant** – any addition of any "pollutant" or combination of pollutants to "waters of this State" from any "point source," or any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This includes

additions of pollutants into waters of this State from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. See 40 CFR 122.2.

**Discharge-related activities** – activities that cause, contribute to, or result in stormwater and allowable non-stormwater point source discharges, and measures such as the siting, construction and operation of BMPs to control, reduce, or prevent pollution in the discharges.

**Disinfectant** - any oxidant, including but not limited to chlorine, chlorine dioxide, chloramines, and ozone, added to the water in any part of the treatment or distribution process that is intended to inactivate pathogenic microorganisms. For the purposes of this permit, this shall be identified as a post washing activity.

**Drawdown** - the draining of a pool or spa in its entirety.

**DMR** – Discharge Monitoring Report, which is a report submitted by a permittee to the Department summarizing the effluent monitoring results obtained by the permittee over periods of time as specified in the permit.

**Effluent limitation** - any restriction or prohibition that:

- Is established under federal law or a law of this State;
- Specifies quantities, rates or concentrations of chemical, physical, biological, or other constituents that are discharged into the waters of this State; and
- Includes parameters for the discharge of toxic and nontoxic substances and standards of performance for new sources.

**EPA** – U. S. Environmental Protection Agency

**Estimated flow** – a calculated volume or discharge rate that is based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters, and batch discharge volumes.

**Existing discharger** – an operator applying for coverage under this permit for discharges authorized previously under an NPDES general or individual permit.

**Facility or Activity** – any NPDES “point source” (including land or appurtenances thereto) that is subject to regulation under the NPDES program. See 40 CFR 122.2.

**Federal Act or Federal Clean Water Act** - the federal Water Pollution Control Act (33 U.S.C. §1251 et seq.), its amendments, and all rules and regulations adopted under the Act.

**Flushing** - the rinsing of pipes, tanks, or reservoirs with untreated “water” or with potable water to remove solids that have accumulated during construction or from settling. Flushing does not include any introduction of cleaners or chemicals into the pipes or tanks.

**GPD or gpd** - an abbreviation for gallons per day, and is used as unit of measurement for flow.

**Grab sample** - an individual sample collected in less than 15 minutes. Grab samples for pH and total residual chlorine shall be analyzed within 15 minutes of sample collection.

**Groundwater** - underground water in a zone of saturation.

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**Impaired Water** (or “Water Quality Impaired Water”) – a body of water identified by the Department or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards (these waters are called “water quality limited segments” under 40 CFR 30.2(j)). Impaired waters include both waters with approved or established TMDLs, and those for which a TMDL has not yet been approved or established. Impaired waters compilations are included in Maryland’s most current List of Impaired Surface Waters as Category 4a, 4b, 4c or 5 waterbodies.

**Includes or including** - includes or including by way of illustration and not by way of limitation.

**Mechanical cleaning** – cleaning of a vessel, pipe, or tank using either manual force by scrubbing or force from pressurized washing. Spraying with a typical garden hose does not constitute mechanical cleaning.

**Minimize** – to reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice

**Monthly average** – The arithmetic average of all sample results collected in a given month.

**NetDMR** – a nationally-available electronic reporting tool, initially designed by states and later adapted for national use by EPA, which can be used by NPDES-regulated facilities to submit discharge monitoring reports (DMRs) electronically to EPA through a secure Internet application over the National Environmental Information Exchange Network (NEIEN). EPA can then share this information with authorized states, tribes, and territories.

**NOI** – Notice of Intent to be covered by this permit (see Part II.A.1.a of this permit).

**NPDES** – National Pollutant Discharge Elimination System

**Operator** – means that person or those persons with responsibility for the management and performance of each facility.

**Outfall** – locations where collected and concentrated stormwater flows are discharged from the facility, including pipes, ditches, swales, and other structures that transport stormwater.

**Owner** - a person who has a legal interest in the facility or in the property on which the facility is located, or the owner’s agent.

**Permittee** - the person holding a permit issued by the Department, or authorized for coverage under a general permit by the department.

**Persistent Foam** - foam that does not dissipate within one half-hour of point of discharge and: forms objectionable deposits on the receiving water; forms floating masses producing a nuisance; produces objectionable color or odor; or interferes with a designated use of the water body. It does not mean foaming of the receiving water body caused by natural conditions.

**Person** – an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof. See 40 CFR 122.2.

**Point source** – any discernible, confined and discrete conveyance, including any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, large animal feeding

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operation, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are, or may be, discharged.

**Pollutant** – dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste discharged into water. See 40 CFR 122.2.

**Pollutant of concern** – A pollutant which causes or contributes to a violation of a water quality standard, including a pollutant which is identified as causing an impairment in a state's 303(d) list.

**Pollution** – means any contamination or other alteration of the physical, chemical, or biological properties of any waters of this State, including a change in temperature, taste, color, turbidity, or odor of the waters or the discharge or deposit of any organic matter, harmful organism, or liquid, gaseous, solid, radioactive, or other substance into any waters of this State that will render the waters harmful, or detrimental to

- (a) public health, safety, or welfare;
- (b) domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses;
- (c) livestock, wild animals, birds; or
- (d) fish or other aquatic life.

**Sewage** – water-carried human, domestic and other wastes and includes all human and animal excreta from residences, buildings, industrial establishments, or other places.

**State discharge permit** - the discharge permit issued under the Environment Article, Title 9, Subtitle 3, Annotated Code of Maryland.

**Super chlorination** - the addition of chlorine resulting in levels exceeding four parts per million (4ppm).

**Surface waters** - all waters of this State which are not groundwaters.

**Tier II waters** – For antidegradation purposes, pursuant to 40 CFR 131.12(a)(2), Tier II waters are characterized as having water quality that exceeds the levels necessary to support the propagation of fish, shellfish, and wildlife and recreation in and on the water. Maryland Tier II waters are identified at COMAR 26.08.02.04-10.

**Total Maximum Daily Loads (TMDLs)** – A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes wasteload allocations (WLAs) for point source discharges; load allocations (LAs) for nonpoint sources and/or natural background, and must include a margin of safety (MOS) and account for seasonal variations. (See section 303(d) of the Clean Water Act and 40 CFR 130.2 and 130.7).

**Total Residual Chlorine (TRC)** - the total amount of chlorine present in a sample. This is the sum of the free chlorine residual and the combined available chlorine residual.

**Upset** - the exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by

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operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

**Wastewater** - any:

- liquid waste substance derived from industrial, commercial, municipal, residential, agricultural, recreational, or other operations or establishments; and
- other liquid waste substance containing liquid, gaseous or solid matter and having characteristics that will pollute any waters of the State.

**Water or Untreated water** – the liquid substance which is derived from a groundwater source, a surface water source, or any combination of these sources, and which will be discharged, without change in quality, into waters of this state, with the exception of storm water runoff.

**Water quality standards** – A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. The Department as promulgated in COMAR 26.08.02 and EPA adopt water quality standards to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act (See CWA sections 101(a)2 and 303(c)). Water quality standards also include an antidegradation policy. See P.U.D. o. 1 of Jefferson County et al v. Wash Dept of Ecology et al, 511 US 701, 705 (1994).

**Waters of this State** – includes both surface and underground waters within the boundaries of this State subject to its jurisdiction, including that part of the Atlantic Ocean within the boundaries of this State, the Chesapeake Bay and its tributaries, and all ponds, lakes, rivers, streams, tidal and nontidal wetlands, public ditches, tax ditches, and public drainage systems within this State, other than those designed and used to collect, convey, or dispose of sanitary sewage; and the flood plain of free-flowing waters determined by the Department of Natural Resources on the basis of the 100-year flood frequency.

**Meter Sizes and Quantities**

Meter Size	Quantity
5/8" meters	5,300
3/4" meters	5,500
1" meters	1,630
1.5" meters	130
2" meters	190
3" meters	75
4" meters	35
6" meters	25
8" meters	13
10" meters	1

### Preliminary Water Meter Replacement Schedule

The table below identifies the approximate number of meters that are planned for replacement during each financial year based on the class of meter.

<b>Fiscal Year</b>	<b>Class of Meter</b>	<b>Meters Replaced</b>
FY23	Multi-Family/Commercial	50
FY24	Residential	1,260
FY25	Residential	3,720
	Multi-Family/Commercial	70
FY26	Residential	3,720
FY27	Residential	3,720
FY28	Multi-Family/Commercial	120
FY29	Multi-Family/Commercial	120
FY30	Multi-Family/Commercial	120